



Prepared for

Georgia Power Company
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2019 ANNUAL GROUNDWATER MONITORING & CORRECTIVE ACTION REPORT

**GEORGIA POWER COMPANY
PLANT BOWEN
ASH POND 1 (AP-1)**

Prepared by

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CERTIFICATION STATEMENT

This 2019 Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company - Plant Bowen – Ash Pond 1 (AP-1) has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule [40 Code of Federal Regulations (CFR) 257 Subpart D], specifically 40 CFR 257.90(e), and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Geosyntec Consultants.



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LIST OF ACRONYMS

ACM	Assessment of Corrective Measures
AP	Ash Pond
ASD	Alternate Source Demonstration
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
DO	Dissolved Oxygen
ft MSL	Feet Mean Sea Level
ft/d	Feet per Day
ft/ft	Feet per Foot
GA EPD	Georgia Environmental Protection Division
GPC	Georgia Power Company
GWPS	Groundwater Protection Standard
HAR	Hydrogeologic Assessment Report
K_h	Horizontal Hydraulic Conductivity
MCL	Maximum Contaminant Level
mg/L	Milligrams per Liter
NELAP	National Environmental Laboratory Accreditation Program
NTU	Nephelometric Turbidity Units
PE	Professional Engineer
QA/QC	Quality Assurance/Quality Control
SCS	Southern Company Services
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
s.u.	Standard Unit
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule [40 Code of Federal Regulations (CFR) Part 257, Subpart D] and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, Geosyntec Consultants (Geosyntec) has prepared this *2019 Annual Groundwater Monitoring & Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company (GPC) Plant Bowen (Site) Ash Pond 1 (AP-1). GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a) adopt Federal CCR rule by reference. For ease of reference, the USEPA CCR rules are cited within this report. This report documents groundwater monitoring activities completed for AP-1 during the 2019 calendar year. A semiannual groundwater report documenting activities from January through July 2019 was prepared and submitted to GA EPD in July 2019 (Geosyntec, 2019d). This report includes the results of the annual monitoring for Appendix IV of 40 CFR 257 conducted in February/March 2019 and the first and second semi-annual monitoring events conducted in April and September 2019 for AP-1.

Due to statistically significant levels (SSLs) of cobalt and molybdenum identified in the *2018 Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2019a), GPC initiated an assessment of corrective measures (ACM) for AP-1 on February 12, 2019. Pursuant to 40 CFR 257.96(b), GPC continues to monitor groundwater associated with AP-1 in accordance with the assessment monitoring program established for the unit in 2018, including semiannual monitoring and reporting pursuant to 40 CFR 257.90 through 40 CFR 257.95 of the Federal CCR rule, and GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). The current 2019 data indicate that SSLs of cobalt and molybdenum associated with AP-1 are horizontally delineated and contained within the property boundary of Plant Bowen and additional vertical delineation is underway.

1.1 Site Description and Background

Plant Bowen is a four-unit, coal-fired, electric-generating facility that commenced operations in the 1970s. The plant is located nine miles southwest of Cartersville in Bartow County, Georgia. The plant is bordered by the Etowah River to the north and east, and Euharlee Creek to the northwest and west (**Figure 1**).

Plant Bowen has a single CCR ash pond (AP-1) that occupies an area of approximately 254 acres. In preparation for AP-1 closure, the plant is undergoing the final phases of work for the conversion to dry handling so that AP-1 no longer receives CCR.

Additionally, active projects are ongoing at the plant to remove gypsum waste streams from AP-1. GPC will close AP-1 by excavation and consolidation of CCR material into an approximately 144-acre lined, multi-cell storage facility situated within the current footprint of AP-1. Closure activities will be conducted in accordance with 40 CFR § 257.102 and corresponding Rule 391-3-4-.10(7)(b). The proposed closure approach provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. Details of the closure approach have been summarized in the Amended Written Closure Plan and published in 2018 to GPC's CCR Rule Compliance website.

1.2 Regional Geology & Hydrogeologic Setting

The following section summarizes the geologic and hydrogeologic conditions at the Site as described in the *Hydrogeologic Assessment Report (Revision 1) – AP-1* (HAR Rev 1) being prepared in support of the AP-1 solid waste handling permit.

1.2.1 Regional and Site Geology

The Site is located within the Great Valley District of the Valley and Ridge Physiographic Province (Valley and Ridge) in northwest Georgia. The Valley and Ridge is characterized by Paleozoic sedimentary rocks that have been folded and faulted into the ridges and valleys that gave this region its name. The floor of the valley is underlain by shales, dolomites, and limestones of Cambrian and Ordovician age. Geologic mapping performed by Lawton et al. (1976) indicates that the Site is underlain by the Ordovician-Cambrian age Knox Dolomite and the Ordovician age Newala Limestone. Based on review of subsurface investigations at the Site, the bedrock is described as predominantly dolomite. The overall Site is underlain primarily by residuum and competent dolomite/limestone bedrock. AP-1 is underlain primarily by three lithologic units: (i) fill material consisting of earthen embankments and CCR material, (ii) residuum, and (iii) competent dolomite/limestone bedrock.

Based on subsurface investigations, the residuum at the Site is the result of in-place weathering of the underlying dolomite/limestone bedrock. The residuum consists mainly of mottled light brown to red to yellow, low to high plasticity, stiff to very stiff clay, silt, and silty clay. Most soils contain varying amounts of black chert nodules and chert gravel. The bedrock beneath the Site is described as light to dark gray, fine to medium-grained, thinly bedded to massive, dense, and hard dolomite, limestone, and dolomitic limestone. Some evidence of weathering along fracture or bedding surfaces is observed, with some manganese or iron oxide staining. Abundant calcite veins and occasional

zones of healed dolomite breccia are observed throughout the bedrock. Solution features such as voids in the underlying limestone/dolomite bedrock have formed in the bedrock over geological timeframes, primarily along pre-existing discontinuities such as joints and bedding planes. At the Site, these voids are typically filled with residuum from the in-place weathering of the bedrock or the downward migration of the overlying residuum, but they may also be open, or water filled. When hydraulically interconnected these voids may create preferential groundwater flow paths across the Site.

1.2.2 Hydrogeologic Setting

The uppermost aquifer at the Site is a regional groundwater aquifer that occurs near the interface of the residuum and the fractured and solutioned bedrock. Groundwater recharge is by precipitation infiltrating through the residuum to bedrock, or in bedrock outcrop areas, it infiltrates directly into the bedrock. Groundwater flow in bedrock is under unconfined to semi-confined conditions from the mantle of overlying lower-permeability residuum and is controlled by secondary porosity along fractures and solution-enhanced features. Based on observations of residuum soil types and horizontal hydraulic conductivity values, the movement of groundwater in the residuum and upper weathered bedrock zone is slow and likely behaves as flow through low-permeability porous media. Groundwater flow in the underlying dolomite/limestone bedrock is likely controlled by preferential flow pathways associated with fractures and solution-enhanced joints and fissures.

1.3 Groundwater Monitoring Well Network

In accordance with 40 CFR 257.91, a groundwater monitoring system was installed at AP-1 that (1) consists of a sufficient number of wells, (2) is installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer, and (3) represents the groundwater quality both upgradient of the unit (i.e., background conditions) and passing the waste boundary of the unit. The number, spacing, and depths of the groundwater monitoring wells were selected based on the characterization of site-specific hydrogeologic conditions. The certified compliance monitoring well network for AP-1 consists of 19 monitoring wells. The well network was certified by a professional engineer (PE) on October 17, 2017; the certification is maintained in the AP-1 Operating Record.

As part of the assessment monitoring program, six additional groundwater monitoring wells were installed in 2018 to provide additional data to characterize flow conditions downgradient of AP-1 and to horizontally and vertically delineate SSLs of cobalt and

molybdenum. Wells BGWC-31 and BGWC-32 were installed for horizontal delineation and wells BGWC-34D, BGWC-35D, and BGWC-36D were installed for vertical delineation. Well BGWA-33 was installed as a characterization well to assess conditions and groundwater levels approaching the Plant Bowen property boundary to the south. At the time of the above well installation efforts, piezometer BGWA-6 was suitably located downgradient of a well reporting a SSL and was therefore reclassified as a delineation well. Prior to 2018, BGWA-6 had only been used for gauging groundwater levels. Pursuant to 40 CFR 257.195(g)((1)(iv), the additional delineation wells are sampled as part of the ongoing assessment groundwater monitoring program.

An on-site network of piezometers is used to gauge water levels to define groundwater flow direction and gradients. Prior to 2019, there were 14 piezometers used to gauge groundwater levels in vicinity of AP-1.

The locations of the compliance monitoring wells, delineation and characterization wells, and secondary groundwater level monitoring piezometers are shown on **Figure 2**; well construction details are listed in **Table 1**.

2.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with 40 CFR 257.90(e), the following describes monitoring-related activities performed during January through December 2019 and discusses any change in status of the monitoring program. All groundwater sampling was performed in accordance with 40 CFR 257.93.

2.1 Monitoring Well Installation and Maintenance

Four groundwater monitoring wells and two piezometers were installed in 2019 to provide additional data to characterize flow conditions and further delineate groundwater quality conditions downgradient of AP-1. Groundwater monitoring wells BGWC-37D and BGWC-38D were installed in April 2019 to vertically delineate groundwater conditions adjacent to wells BGWC-35D and BGWC-36D, respectively. Two additional groundwater monitoring wells (BGWC-39 and BGWC-40) were installed in December 2019 to horizontally delineate groundwater conditions downgradient of wells BGWC-32 and BGWC-24, respectively. Piezometers PZ-5 and PZ-6 were also installed in December 2019, intended to characterize flow conditions southwest of AP-1. The locations of the four wells and two piezometers are shown on **Figure 2**; well construction details are also provided in **Table 1**. Detailed boring and well construction logs for the six wells and piezometers installed in 2019 are also provided in **Appendix A**. Well installation reports have been submitted to GA EPD under separate cover in June 2019 and January 2020 (Geosyntec, 2019b, 2020).

The well and piezometer networks are inspected, at a minimum, during each groundwater monitoring event. In 2019, inspections were conducted in March, June, and September. Inspections are conducted by the field sampling team using GA EPD-based inspection criteria. Any issues identified with the wells (e.g., clogged weep holes within the outer protective casing, faded well identification signage, rusted locks and/or latches, etc.) are addressed before the following groundwater sampling event. The well inspection forms are provided in **Appendix B**. In addition to completing routine maintenance of the well network in 2019, the well pad and aboveground well casing for well BGWC-30 was replaced on June 11, 2019. The repair was prompted when exterior pitting of the metal well casing was observed during a well inspection conducted on June 4, 2019.

2.2 Assessment Monitoring

GPC initiated an assessment monitoring program for groundwater at AP-1 in January 2018. Statistical analyses of the 2018 assessment monitoring groundwater data identified

SSLs of cobalt in well BGWC-22 in excess of the federal and state groundwater protection standard (GWPS) and SSLs of molybdenum in wells BGWC-20, BGWC-22, BGWC-23, and BGWC-30 in excess of the state GWPS.

Pursuant to 40 CFR 257.96, an ACM was initiated for AP-1 on February 12, 2019. An *Assessment of Corrective Measures Report* was subsequently prepared for AP-1 (Geosyntec, 2019c) and was submitted to GA EPD. In accordance with 40 CFR 257.96(b), groundwater continues to be monitored at AP-1 under the assessment monitoring program while the ACM phase is implemented. Assessment monitoring events at AP-1 were conducted in February/March, April, and September/October 2019 during this annual reporting period. The number of groundwater samples collected for analysis and the dates the samples were collected at AP-1 during this reporting period are summarized in **Table 2**. The analytical results are discussed in Section 3, while the statistical results are discussed in Section 4.

2.3 Demonstration Documentation

A demonstration document was prepared and submitted to GA EPD on July 30, 2019 to present an evaluation of the arsenic groundwater concentrations reported for delineation well BGWC-34D. The well was originally installed to vertically delineate the SSL of molybdenum in well BGWC-22. While well BGWC-34D did vertically delineate molybdenum, arsenic was detected in groundwater samples from well BGWC-34D above the GWPS of 0.010 milligram per liter (mg/L). Because a SSL of arsenic has not been identified in AP-1 compliance wells, the arsenic demonstration for BGWC-34D is not subject to the formal Alternative Source Demonstration (ASD) requirements of the CCR Rule. Instead, the demonstration documents GPC's evaluation of the source of arsenic detections in the delineation well BGWC-34D. The document presents multiple lines of evidence that illustrate the groundwater arsenic detections are associated with naturally occurring arsenic within the localized rock formation. The completed demonstration is provided in **Appendix C**.

2.4 Additional Groundwater Sampling

The following summarizes additional groundwater sampling events or expanded sampling scopes conducted during the 2019 reporting period.

- *May 2-3, 2019*: Newly-installed vertical delineation wells BGWC-37D and BGWC-38D were sampled to assess groundwater molybdenum concentrations relative to the concentrations reported in wells BGWC-35D and BGWC-36D,

respectively. Groundwater samples were also collected from wells BGWA-2, BGWC-22, and BGWC-32 to further evaluate the distribution of cobalt in groundwater.

- *July 9, 2019:* A groundwater sample was collected from characterization well BGWA-33 and analyzed for boron and molybdenum to confirm the April 2019 results reported for the well and evaluate preparing a demonstration document that outlines evidence that illustrate groundwater molybdenum detections are naturally occurring within the localized rock formation.
- *September 23-30, 2019:* Additional groundwater samples were collected from the compliance and delineation wells during the September semiannual assessment monitoring event and analyzed for supplemental parameters for the on-going ACM efforts presented in the ACM Report. The supplementary data will be used to evaluate (i) attenuation mechanisms and rates and aquifer capacity for attenuation; (ii) amount and distribution of select metal hydroxides or electron donors that may affect geochemical mechanisms parameters; and (iii) groundwater parameters specific to the existing National Pollutant Discharge Elimination System permitted discharge limits and capabilities of on-site low volume wastewater treatment plant. The scope of these additional efforts and associated results are presented in the *Supplemental Semi-Annual Remedy Selection and Design Progress Report* provided in **Appendix D**.
- *November 15, 2019:* A groundwater sample was collected from BGWC-32 and analyzed for Appendix III parameters and cobalt to confirm the September 2019 results and in support of evaluating the preparation of an ASD for the cobalt SSL reported for well BGWC-22.
- *December 13,16, 2019:* Groundwater samples were collected from newly-installed delineation wells BGWC-39 and BGWC-40. Both sample sets were analyzed for Appendix III parameters, with additional analysis of cobalt in well BGWC-39 and boron in well BGWC-40. The data were collected in support of delineating upgradient cobalt and boron concentrations. Discussion of this sampling scope is presented in an addendum to the *Supplemental Semi-Annual Remedy Selection and Design Progress Report*, provided in **Appendix D**.

Unless otherwise noted, the field logs and laboratory reports associated with these supplementary sampling events are included in **Appendix E**

3.0 SAMPLING METHODOLOGY & ANALYSES

The following section presents a summary of the field sampling procedures that were implemented and the groundwater sampling results that were obtained in connection with the assessment monitoring program conducted at AP-1 during this reporting period.

3.1 Groundwater Level Measurement

A synoptic round of depth-to-groundwater-level measurements were recorded from the AP-1 wells and piezometers during the three 2019 site-wide assessment monitoring events and used to calculate the corresponding groundwater elevations, which are presented in **Table 3**. The synoptic groundwater elevations observed for the February/March 2019 event (as recorded on March 5) ranged from 697.39 feet mean sea level (ft MSL) (referenced to the North American Vertical Datum of 1988) in well BGWA-2 to 651.80 ft MSL in well BGWC-14. For the April 2019 event, the groundwater elevations ranged from 689.33 ft MSL in well BGWC-24 to 637.96 ft MSL in well BGWC-14. For the September/October event (as recorded on September 19), the groundwater elevations ranged from 684.08 ft MSL in well BGWC-24 to 643.73 ft MSL in well PZ-1.

The groundwater elevation data were used to prepare potentiometric surface maps for the three events, which are presented on **Figures 3, 4, and 5**. Groundwater flow pathways at the Site are expected to be influenced by solution features, fractures, and weathered zones in the upper bedrock. Interpretation of the potentiometric surface contours indicates that groundwater generally flows to the north and northwest. A component of flow in the southernmost portion of AP-1 is to the south and west, likely due to groundwater mounding related to historical free water storage at the recycle pond at the southern end of AP-1 (now decommissioned). The unlined recycle pond continues to collect water which in turn artificially elevates the groundwater levels in the surrounding area, producing elevated hydraulic heads and locally influencing groundwater flow directions.

3.2 Groundwater Gradient and Flow Velocity

Because of lithologic heterogeneity and anisotropic groundwater flow, groundwater velocity calculations using derivations of Darcy's Law, or other methods, may not capture the full range and distribution of flow velocities beneath and around AP-1. Groundwater flow velocity calculations are provided as a general estimate of groundwater flow velocity at the site based on available information and assumptions described below.

The groundwater hydraulic gradients within the residuum and fractured and solutioned bedrock of the uppermost aquifer beneath AP-1 were calculated using groundwater elevation data recorded in March, April, and September 2019, and along three main interpreted groundwater flow paths to account for changing flow directions underlying AP-1, as discussed in Section 3.1 (i.e., northwest, west, south/southwest). The supporting calculations are presented in **Table 4**; the locations of the flow paths used in the calculations and associated potentiometric contour lines are shown on **Figures 3, 4, and 5**.

The calculated hydraulic gradient along the northwest, west, and south/southwest flow paths are 0.012 feet per foot (ft/ft), 0.023 ft/ft, and 0.012 ft/ft, respectively. These hydraulic gradients represent the calculated average of the March, April, and September 2019 events.

The approximate horizontal flow velocities along the northwest, west, and south/southwest flow paths were calculated using the following derivative of Darcy's Law. The calculations are presented on **Table 4**.

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

Where:

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

$$K = \text{Hydraulic Conductivity} \left(\frac{\text{feet}}{\text{day}} \right)$$

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

$$n_e = \text{Effective porosity}$$

Because the geologic conditions at AP-1 are not homogenous or isotropic, and that the flow pathways are influenced by solution features, fractures, and weathered zones in the upper bedrock, groundwater flow velocities are variable. Based on the values presented in the HAR Rev 1, the horizontal hydraulic conductivity (K_h) values for the residuum range from 4.4×10^{-5} to 4.2×10^{-1} feet per day (ft/d), with a geometric mean of 7.0×10^{-3} ft/d. Horizontal hydraulic conductivity values measured for bedrock ranged from 3.0×10^{-2} to 33.0 ft/d, with a geometric mean of 2.4 ft/d. To be conservative, the flow velocities

were calculated using the geometric mean K_h for weathered/fractured bedrock. Also, an estimated effective porosity of 0.30 for the fractured and solutioned dolomite/limestone bedrock was also applied.

The calculated flow velocities along the northwest, west, and south/southwest flow paths are 0.10 ft/d, 0.19 ft/d, and 0.10 ft/d, respectively. These velocities were derived using the average hydraulic gradients presented above. Due to the hydrogeologic conditions affected by karst processes at the Site, the use of groundwater flow velocity calculations such as these may not be applicable; therefore, the above estimates should be considered a rough approximation.

3.3 Groundwater Sampling Procedures

Groundwater samples were collected from the compliance monitoring and delineation well networks using low-flow sampling procedures in accordance with 40 CFR 257.93(a). Compliance wells were purged and sampled using an installed bladder pump with dedicated tubing; the delineation wells were sampled using a portable bladder pump equipped with new disposable polyethylene tubing. All non-disposable equipment was decontaminated before use and between well locations.

A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters listed below during purging to verify stabilization prior to sampling. Turbidity was measured using a LaMotte 2020we (or similar) portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- $\text{pH} \pm 0.1$ Standard Units (s.u.).
- Conductivity $\pm 5\%$.
- $\pm 10\%$ for dissolved oxygen (DO) > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only.
- Turbidity measured less than 10 nephelometric turbidity units (NTU).

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 Pace Analytical Services, LLC. in Norcross, Georgia following chain-of-custody protocol. The field sampling forms generated during the 2019 assessment monitoring events are provided in **Appendix E**.

3.4 Laboratory Analyses

Laboratory analyses were performed by Pace Analytical Services, LLC. (Pace Analytical), which is accredited by the National Environmental Laboratory Accreditation Program (NELAP). Pace Analytical maintains a NELAP certification for the Appendix III and Appendix IV parameters analyzed for this project. Analytical methods used for groundwater sample analysis are listed in the analytical laboratory reports included in **Appendix E**.

The groundwater analytical results from the 2019 assessment monitoring events are summarized in **Table 5**. The Pace Analytical laboratory reports associated with the results presented in Table 5 are provided in **Appendix E**.

3.5 Quality Assurance & Quality Control Summary

Quality assurance/quality control (QA/QC) samples were collected during the groundwater monitoring events at the rate of one QA/QC sample per 10 groundwater samples and included the following: field duplicates, equipment blanks, and field blank samples. QA/QC samples were collected in laboratory-provided bottles and submitted under the same chain of custody as the primary samples for analysis of the same parameters by Pace Analytical.

In addition to collecting QA/QC samples, the data were validated based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and applicable federal and site-specific guidance documents (USEPA, 2011; USEPA, 2017). Where necessary, the data were qualified with supporting documentation and justifications. The associated data validation reports are provided in **Appendix E** with the laboratory reports.

4.0 STATISTICAL ANALYSIS

The following section presents a summary of the statistical approach applied to assess the 2019 groundwater analytical data in downgradient compliance wells relative to the available historical dataset. Groundwater monitoring data collected during the two 2019 semiannual monitoring events were statistically analyzed pursuant to 40 CFR 257.95 following the PE-certified statistical method. Appendix III detection monitoring parameters were statistically analyzed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were analyzed to determine 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 Methods

The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision-support software package, that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the USEPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (USEPA, 2009).

Time series plots generated by Sanitas are used to identify suspected outliers, or extreme values that would result in limits that are not representative of the current background data population. Suspected outliers at all wells for Appendix III and Appendix IV parameters are formally tested using Tukey's box plot method and not used to establish statistical limits. Background well data were updated following the Unified Guidance recommendation, evaluating recent background data using Tukey's box plot method for outliers and Sen's Slope/Mann-Kendall methods for potential trends.

4.1.1 Appendix III Statistical Methods

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for each of the Appendix III parameters. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each parameter. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified. The results are discussed in Section 4.2 and tabulated in **Table F-1, Appendix F**.

4.1.2 Appendix IV Statistical Methods

Appendix IV constituents detected during the initial annual assessment monitoring event, conducted February/March 2019, were added to the list of parameters sampled during the April and September/October 2019 semiannual sampling events. To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV parameters in each downgradient well. Those confidence intervals are compared to both the state and federal GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If there is an exceedance of the established standard, an SSL exceedance is identified.

Background limits were used when determining the GWPS under USEPA rule 40 CFR 257.95(h) and GA EPD CCR Rule 391-3-4-.10(6)(a). Parametric tolerance limits were used to calculate background limits from pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples.

USEPA revised the federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in 40 CFR 257.95(h)(1-3), the GWPS is:

- (1) The maximum contaminant level (MCL) established under 40 CFR 141.62 and 141.66.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 mg/l;
 - (ii) Lead 0.015 mg/l;
 - (iii) Lithium 0.040 mg/l; and
 - (iv) Molybdenum 0.10 mg/l.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

USEPA's updated GWPS have not yet been incorporated under GA EPD's CCR Rule. GA EPD CCR Rule GWPS are:

- (1) The federally established MCL.
- (2) Where an MCL has not been established, the background concentration.
- (3) Background levels for constituents where the background level is higher than the MCL.

Following the above federal and state rule requirements, GWPS have been established for statistical comparison of Appendix IV constituents and are presented in **Table 6**. Additional details are presented in the statistical analysis packages provided in **Appendix F**.

4.2 Statistical Analyses Results

Analytical data from the April and September/October 2019 semiannual monitoring events were statistically analyzed in accordance with the Statistical Analysis Method Certification (October 2017). Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established GWPS.

After using the Tukey box plot method, one outlier was flagged for TDS in upgradient well BGWA-29. A summary of the findings is included in **Appendix F**. The Sen's Slope/Mann-Kendall methods for potential trends identified both increasing and decreasing trends in the dataset for the background wells, however, no action is recommended at this time given the limited dataset size ($n < 20$).

Based on review of the Appendix III statistical analysis presented in **Table F-1**, Appendix III constituents have not returned to background levels and assessment monitoring should continue pursuant to 40 CFR 257.95(f).

A summary of the Sanitas outputs for the April and September/October 2019 assessment events are provided in **Appendix F**. Based on the statistical analysis of Appendix IV parameters as described in Section 4.1.2, the following parameters were found to exceed the GWPS for both 2019 events:

AP-1 (Federal CCR Rule):

- Cobalt: BGWC-22

AP-1 (GA EPD CCR Rule):

- Cobalt: BGWC-22
- Molybdenum: BGWC-20, BGWC-22, BGWC-23, and BGWC-30

The April and September/October 2019 statistical evaluation results are consistent with the 2018 reporting year statistical results. Assessment monitoring will continue to be implemented at AP-1.

4.3 Delineation Data

Limited groundwater analytical data are available for delineation wells installed at the Site in 2019; therefore, groundwater quality is simply compared to the applicable GWPS. A review of the 2019 analytical data derived from delineation wells identified the following Appendix IV GWPS exceedances:

AP-1 (Federal CCR Rule):

- Cobalt: BGWC-32
- Molybdenum: BGWC-38D

AP-1 (GA EPD CCR Rule):

- Cobalt: BGWC-32
- Molybdenum: BGWA-33, BGWC-35D, BGWC-36D, BGWC-37D, BGWC-38D

Cobalt concentrations in delineation wells BGWC-39 and BGWC-35D are below the current state and federal GWPS and therefore delineates cobalt, both horizontally and vertically, to within the property boundary for compliance well BGWC-22.

GPC is evaluating preparing a demonstration document that outlines evidence illustrating groundwater molybdenum detections in well BGWA-33 are naturally occurring within the localized rock formation. The lack of historical molybdenum detections above estimated trace concentrations in the upgradient and near vicinity wells and piezometers relative to BGWA-33 suggest an isolated molybdenum source other than AP-1. Also, the Appendix III parameters that are typically considered CCR indicators (e.g., boron, TDS) are reported at low to trace concentrations in groundwater samples from BGWA-33.

Molybdenum concentrations reported in horizontal delineation wells BGWC-31, BGWC-32, and BGWA-6 are below the state and federal GWPS and therefore delineate the constituent to within the property boundary for compliance wells BGWC-20, BGWC-22, BGWC-23, and BGWC-30. The molybdenum concentration reported in well BGWC-34D is below the state and federal GWPS, and therefore vertically delineates the molybdenum SSL reported for well BGWC-20. Vertical delineation of molybdenum in wells BGWC-22, BGWC-23, and BGWC-30 is currently in progress.

Based on these exceedances, additional approaches are being evaluated to vertically delineate molybdenum groundwater concentrations in wells BGWC-37D and BGWC-38D. Approaches may include the installation of deeper monitoring wells or analysis of aquifer solid material collected from the screen zones of these two wells to determine if a natural source of molybdenum exists at depth of these wells. Aquifer solid material from wells BGWC-37D and BGWC-38D will be submitted for analysis of total molybdenum in February 2020. The decision to install additional monitoring wells depends on the analytical results.

5.0 MONITORING PROGRAM STATUS

5.1 Assessment Monitoring Status

Pursuant to 40 CFR 257.96(b), GPC will continue to monitor the groundwater at AP-1 in accordance with the assessment monitoring program regulations of 40 CFR 257.95 while ACM efforts are implemented to evaluate SSL concentrations of cobalt and molybdenum in select AP-1 wells with reference to the current GA EPD GWPS. Pursuant to 40 CFR 257.195(g)((1)(iv), the additional delineation wells will continue to be sampled as part of the ongoing semi-annual assessment groundwater monitoring program.

5.2 Assessment of Corrective Measures

The ACM efforts completed during the reporting period covered by this groundwater monitoring and corrective action report are presented in the *Supplemental Semi-Annual Remedy Selection and Design Progress Report* provided in **Appendix D**. The Semi-Annual Progress Report summarizes:

- (i) the current conceptual site model applicable to evaluating groundwater corrective measures proposed in the ACM Report (Geosyntec, 2019c);
- (ii) the analytical data obtained during supplemental ACM-specific field investigations;
- (iii) the status of evaluating applicable corrective measures; and
- (iv) the planned activities and anticipated schedule for the following semi-annual reporting period.

GPC will include future Semi-Annual Progress Reports with each groundwater monitoring and corrective action report.

6.0 CONCLUSIONS & FUTURE ACTIONS

This *2019 Annual Groundwater Monitoring & Corrective Action Report* for Plant Bowen AP-1 was prepared to fulfill the requirements of USEPA's CCR Rule and GA EPD Rules for Solid Waste Management 391-3-4-.10. Statistical evaluations of the April and September/October 2019 groundwater monitoring data for AP-1 confirmed the continued presence of SSLs of cobalt and molybdenum in AP-1 compliance monitoring wells BGWC-20, BGWC-22, BGWC-23, and BGWC-30.

Based on the September 2019 data, molybdenum concentrations reported in horizontal delineation wells BGWC-31, BGWC-32, and BGWA-6 are below the state and federal GWPS and therefore delineate the constituent to within the property boundary. The molybdenum concentration reported in well BGWC-34D is below the state and federal GWPS, and therefore vertically delineates the molybdenum SSL reported for well BGWC-20. Vertical delineation of molybdenum in wells BGWC-22, BGWC-23, and BGWC-30 is currently in progress, as described in Section 4.3.

In support of delineating the SSLs of cobalt in BGWC-22, an additional horizontal delineation well (BGWC-39) was installed downgradient in early-December and sampled December 13, 2019. The reported cobalt concentration in well BGWC-39 is below the current state and federal GWPS and therefore delineates cobalt to within the property boundary. The cobalt concentration in delineation well BGWC-35D is also below the state and federal GWPS and therefore vertically delineates the SSL in BGWC-22.

The initial groundwater assessment sampling event for Appendix IV parameters is scheduled to occur in February 2020, with the first semiannual assessment monitoring event tentatively planned for March 2020. Additional groundwater monitoring and delineation activities in support of the ACM efforts may occur in the interim.

7.0 REFERENCES

- Geosyntec Consultants, 2019a. *2018 Annual Groundwater Monitoring and Corrective Action Report - Plant Bowen Ash Pond 1 (AP-1)*. January 2019.
- Geosyntec Consultants, 2019b. *Ash Pond Monitoring Well Certification Report – Addendum, Plant Bowen Ash Pond 1*. June 2019.
- Geosyntec Consultants, 2019c. *Assessment of Corrective Measures Report – Plant Bowen Ash Pond 1 (AP-1)*. June 2019.
- Geosyntec Consultants, 2019d. *2019 First Semiannual Groundwater Monitoring and Corrective Action Report - Plant Bowen Ash Pond 1 (AP-1)*. July 2019.
- Geosyntec Consultants, 2019e. *Semi-Annual Remedy Selection and Design Progress Report - Plant Bowen Ash Pond 1 (AP-1)*. December 2019.
- Geosyntec Consultants, 2020. *Ash Pond Monitoring Well Certification Report – Addendum No.2, Plant Bowen Ash Pond 1*. January 2020.
- Lawton, D.E., Marsalis, W.E, and others (1976). *Geologic Map of Georgia: Georgia Geological Survey, scale = 1: 500,000, 1976.*
- Sanitas[™]: *Groundwater Statistical Software, v. 9.6.05 (2018)*. Sanitas Technologies©, Boulder, CO.
- USEPA, 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.
- USEPA, 2011. *Region IV Data Validation Standard Operating Procedures*. Science and Ecosystem Support Division. Region IV. Athens, GA. September.
- USEPA, 2015. *Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*. [EPA-HQ-RCRA–2009–0640; FRL–9919–44–OSWER]. RIN–2050–AE81. April.

USEPA, 2017. *National Functional Guidelines for Inorganic Superfund Methods Data Review*. Office of Superfund Remediation and Technology Innovation. OLEM 9355.0-135 [EPA-540-R-2017-001]. Washington, DC. January.

TABLES

Table 1
Monitoring Well Network Summary
Plant Bowen AP-1, Bartow County, Georgia

Well ID	Hydraulic Location	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation ⁽²⁾ (ft MSL)	Top of Screen Elevation ⁽²⁾ (ft MSL)	Bottom of Screen Elevation ⁽²⁾ (ft MSL)	Well Depth (ft BTOC) ⁽³⁾	Screen Interval Length
<i>Compliance Monitoring Wells</i>									
BGWA-2	Upgradient	10/29/2015	1499375.65	2068599.23	729.81	650.90	640.90	89.17	10
BGWA-29	Upgradient	8/7/2016	1498283.38	2066363.43	721.39	632.70	622.70	99.03	10
BGWC-7	Downgradient	10/1/2015	1504713.10	2066801.85	705.60	625.50	615.50	90.40	10
BGWC-8	Downgradient	11/18/2015	1504672.07	2066928.29	706.65	637.20	627.20	79.73	10
BGWC-9	Downgradient	11/13/2015	1504910.51	2066144.11	692.11	638.70	628.70	63.74	10
BGWC-10	Downgradient	10/7/2015	1505032.56	2066080.17	686.26	634.20	624.20	62.37	10
BGWC-12	Downgradient	10/21/2015	1505280.77	2065909.74	694.60	626.60	616.60	78.28	10
BGWC-14	Downgradient	11/10/2015	1505406.14	2065043.82	718.77	640.20	630.20	88.84	10
BGWC-16	Downgradient	11/12/2015	1504656.54	2064248.97	674.34	635.80	625.80	48.87	10
BGWC-17	Downgradient	10/22/2015	1504432.14	2064260.75	673.71	615.60	605.60	68.39	10
BGWC-18	Downgradient	10/13/2015	1504118.94	2064258.25	672.89	645.20	635.20	37.95	10
BGWC-19	Downgradient	10/12/2015	1503742.31	2064245.92	673.65	629.40	619.40	54.58	10
BGWC-20	Downgradient	10/9/2015	1503367.84	2064260.88	675.17	635.70	625.70	49.73	10
BGWC-21	Downgradient	3/2/2016	1501627.60	2064348.78	691.41	648.70	638.70	52.99	10
BGWC-22	Downgradient	10/8/2015	1501324.02	2064359.44	695.49	662.70	652.70	43.05	10
BGWC-23	Downgradient	10/15/2015	1501000.87	2064351.45	695.57	654.90	644.90	50.95	10
BGWC-24	Downgradient	10/27/2015	1500620.18	2065032.39	702.30	646.50	636.50	66.11	10
BGWC-25	Downgradient	3/3/2016	1502292.88	2064244.72	680.51	632.90	622.90	57.87	10
BGWC-30	Downgradient	1/4/2017	1499816.75	2066394.31	701.18	651.50	641.50	59.98	10
<i>Groundwater Level Monitoring Piezometer</i>									
BGWA-1	Downgradient	11/17/2015	1499099.83	2067205.55	720.95	672.30	662.30	58.97	10
BGWA-3	Downgradient	11/5/2015	1499419.93	2065186.44	724.33	645.70	635.70	88.97	10
BGWA-4	Downgradient	3/4/2016	1499484.76	2064697.83	728.70	660.40	650.40	78.61	10
BGWA-5	Downgradient	11/3/2015	1499435.96	2065421.03	720.94	662.10	652.10	69.10	10
BGWC-11	Downgradient	10/16/2015	1504998.34	2066092.86	686.69	619.80	609.80	77.18	10
BGWC-13	Downgradient	10/21/2015	1505436.84	2065250.98	717.54	654.40	644.40	73.45	10
BGWC-15	Downgradient	10/20/2015	1505279.56	2064731.57	717.98	655.10	645.10	73.21	10
BGWA-26	Downgradient	8/5/2016	1498696.48	2064190.20	728.66	663.40	653.40	75.56	10
BGWA-27	Downgradient	8/6/2016	1498718.03	2064387.85	735.29	651.90	641.90	93.74	10
BGWA-28	Downgradient	8/7/2016	1498748.11	2064577.77	737.49	661.20	651.20	86.58	10
PZ-1	Downgradient	6/23/2016	1505600.31	2066843.00	677.83	630.60	620.60	57.54	10
PZ-2	Downgradient	6/24/2016	1503857.59	2062937.95	668.32	649.30	639.30	29.33	10
PZ-3	Downgradient	6/22/2016	1505722.73	2066070.72	707.90	658.60	648.60	59.62	10
PZ-4	Downgradient	6/23/2016	1505788.40	2064315.36	718.71	669.20	659.20	59.78	10
PZ-5	Downgradient	12/4/2019	1499886.91	2063961.76	700.37	650.40	640.40	59.97	10
PZ-6	Downgradient	12/8/2019	1500378.80	2063241.95	678.55	650.70	640.70	37.85	10

Table 1
Monitoring Well Network Summary
Plant Bowen AP-1, Bartow County, Georgia

Well ID	Hydraulic Location	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation ⁽²⁾ (ft MSL)	Top of Screen Elevation ⁽²⁾ (ft MSL)	Bottom of Screen Elevation ⁽²⁾ (ft MSL)	Well Depth (ft BTOC) ⁽³⁾	Screen Interval Length
<i>Delineation or Characterization Monitoring Wells</i>									
BGWA-6	Downgradient	11/6/2015	1499260.85	2065797.45	716.98	664.50	654.50	62.74	10
BGWC-31	Downgradient	7/17/2018	1503498.68	2064022.78	670.99	631.59	621.59	49.70	10
BGWC-32	Downgradient	7/18/2018	1501251.18	2064184.43	699.52	658.60	648.60	51.22	10
BGWC-34D	Downgradient	7/13/2018	1503356.62	2064259.26	675.52	606.11	596.11	79.75	10
BGWC-35D	Downgradient	7/12/2018	1501312.30	2064359.89	695.93	625.32	615.32	80.94	10
BGWC-36D	Downgradient	7/2/2018	1499808.60	2066415.39	701.17	615.22	605.22	96.35	10
BGWC-37D	Downgradient	4/25/2019	1501293.46	2064363.99	696.12	595.56	585.56	112.56	10
BGWC-38D	Downgradient	4/18/2019	1499803.60	2066430.57	700.47	584.66	574.66	129.81	10
BGWC-39	Downgradient	12/6/2019	1501240.84	2064095.03	679.28	661.30	651.30	28.08	10
BGWC-40	Downgradient	12/3/2019	1500589.95	2064315.83	689.64	636.50	626.50	63.14	10
BGWA-33 ⁽⁴⁾	Downgradient	7/10/2018	1497973.36	2064876.50	743.34	672.80	662.80	80.84	10

Notes:

ft MSL = feet mean sea level

ft BTOC = feet below top of casing

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet.

(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

(3) Total well depth accounts for sump if data provided on well construction logs.

Table 2
Groundwater Sampling Event Summary for 2019
Plant Bowen AP-1, Bartow County, Georgia

Well ID	Hydraulic Location	Feb 25, 27, 28 and Mar 1 - 6, 2019	Apr 1 - 5, 2019	May 2 - 3, 2019	Jul 9, 2019	Sep 19, 23 - Oct 4, 2019	Nov 15, 2019	Dec 13, 16, 2019	Status of Monitoring Well
Purpose of Sampling Event:		App. IV Annual	Assessment	Supplemental Delineation	Supplemental Delineation	Assessment	Supplemental Delineation	Supplemental Delineation	
Compliance Monitoring Well Network									
BGWA-2	Upgradient	S02	A01	SDE01	--	A02	--	--	Assessment
BGWA-29	Upgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-7	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-8	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-9	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-10	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-12	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-14	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-16	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-17	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-18	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-19	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-20	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-21	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-22	Downgradient	S02	A01	SDE01	--	A02	--	--	Assessment
BGWC-23	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-24	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-25	Downgradient	S02	A01	--	--	A02	--	--	Assessment
BGWC-30	Downgradient	S02	A01	--	--	A02	--	--	Assessment
Delineation or Characterization Monitoring Wells									
BGWA-6	Downgradient	--	A01	--	--	A02	--	--	Assessment
BGWC-31	Downgradient	--	A01	--	--	A02	--	--	Assessment
BGWC-32	Downgradient	--	A01	SDE01	--	A02	SDE01	--	Assessment
BGWC-34D	Downgradient	--	A01	--	--	A02	--	--	Assessment
BGWC-35D	Downgradient	--	A01	--	--	A02	--	--	Assessment
BGWC-36D	Downgradient	--	A01	--	--	A02	--	--	Assessment
BGWC-37D	Downgradient	--	--	SDE01	--	--	--	--	Assessment
BGWC-38D	Downgradient	--	--	SDE01	--	--	--	--	Assessment
BGWC-39	Downgradient	--	--	--	--	--	--	SDE02	Assessment
BGWC-40	Downgradient	--	--	--	--	--	--	SDE02	Assessment
BGWA-33 ⁽¹⁾	Downgradient	--	A01	--	SDE02	A02	--	--	Assessment

Notes:

S## = Initial annual Appendix IV sampling event number since program initiation in January 2018.

A## = Semiannual assessment monitoring event number for given reporting year.

SDE##= Supplemental delineation event number

(1) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

Table 3
Summary of Groundwater Elevations
Plant Bowen AP-1, Bartow County, Georgia

Well ID	Top of Casing Elevation ⁽¹⁾ (ft MSL)	Mar 5, 2019		Apr 1, 2019		Sep 19, 2019	
		Depth to Water (ft BTOC)	Groundwater Elevations (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevations (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevations (ft MSL)
<i>Compliance Monitoring Well Network</i>							
BGWA-2	729.81	32.42	697.39	43.46	686.35	62.27	667.54
BGWA-29	721.39	30.47	690.92	37.01	684.38	53.45	667.94
BGWC-7	705.60	35.77	669.83	41.72	663.88	47.15	658.45
BGWC-8	706.65	37.36	669.29	43.31	663.34	48.45	658.20
BGWC-9	692.11	17.35	674.76	26.24	665.87	32.15	659.96
BGWC-10	686.26	13.53	672.73	23.86	662.40	26.56	659.70
BGWC-12	694.60	27.37	667.23	35.06	659.54	40.35	654.25
BGWC-14	718.77	66.97	651.80	80.81	637.96	73.22	645.55
BGWC-16	674.34	8.60	665.74	15.42	658.92	17.61	656.73
BGWC-17	673.71	7.70	666.01	14.37	659.34	16.41	657.30
BGWC-18	672.89	5.02	667.87	13.32	659.57	15.16	657.73
BGWC-19	673.65	8.87	664.78	14.98	658.67	16.74	656.91
BGWC-20	675.17	9.98	665.19	14.64	660.53	15.78	659.39
BGWC-21	691.41	9.98	681.43	16.73	674.68	23.16	668.25
BGWC-22	695.49	18.31	677.18	24.00	671.49	27.34	668.15
BGWC-23	695.57	25.62	669.95	29.78	665.79	31.38	664.19
BGWC-24	702.30	7.09	695.21	12.97	689.33	18.22	684.08
BGWC-25	680.51	11.24	669.27	15.53	664.98	18.86	661.65
BGWC-30	701.18	9.85	691.33	17.58	683.60	33.31	667.87
<i>Groundwater Level Monitoring Piezometer</i>							
BGWA-1	720.95	27.49	693.46	37.15	683.80	52.54	668.41
BGWA-3	724.33	35.26	689.07	42.74	681.59	56.82	667.51
BGWA-4	728.70	39.79	688.91	47.50	681.20	61.42	667.28
BGWA-5	720.94	31.34	689.60	39.21	681.73	53.68	667.26
BGWC-11	686.69	12.24	674.45	20.73	665.96	26.56	660.13
BGWC-13	717.54	62.88	654.66	65.40	652.14	67.26	650.28
BGWC-15	717.98	56.47	661.51	60.05	657.93	67.24	650.74
BGWA-26	728.66	42.42	686.24	51.01	677.65	63.62	665.04
BGWA-27	735.29	48.85	686.44	57.32	677.97	70.18	665.11
BGWA-28	737.49	50.86	686.63	58.95	678.54	71.87	665.62
PZ-1	677.83	25.85	651.98	28.68	649.15	34.10	643.73
PZ-2	668.32	11.13	657.19	13.15	655.17	14.35	653.97
PZ-3	707.90	53.33	654.57	56.74	651.16	59.94	647.96
PZ-4	718.71	52.52	666.19	59.15	659.56	59.46	659.25
PZ-5	700.37	--	--	--	--	--	--
PZ-6	678.55	--	--	--	--	--	--
APPZ-1R	724.30	26.55	697.75	29.94	694.36	NM	-
APPZ-2R	716.89	14.82	702.07	15.89	701.00	NM	-
APPZ-3R	723.36	28.90	694.46	29.74	693.62	NM	-
APPZ-4R	756.38	79.06	677.32	83.56	672.82	NM	-
APPZ-5R	783.70	114.94	668.76	118.79	664.91	NM	-
DW-1B	727.77	23.36	704.41	23.99	703.78	NM	-
DW-2B	721.68	17.02	704.66	17.79	703.89	NM	-
MW-108	711.86	23.54	688.32	NM	-	46.49	665.37
MW-4A	714.26	40.43	673.83	NM	-	NM	-

Table 3
 Summary of Groundwater Elevations
 Plant Bowen AP-1, Bartow County, Georgia

Well ID	Top of Casing Elevation ⁽¹⁾ (ft MSL)	Mar 5, 2019		Apr 1, 2019		Sep 19, 2019	
		Depth to Water (ft BTOC)	Groundwater Elevations (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevations (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevations (ft MSL)
<i>Delineation or Characterization Monitoring Wells</i>							
BGWA-6	716.98	25.23	691.75	32.72	684.26	47.91	669.07
BGWC-31	670.99	11.30	659.69	14.24	656.75	15.36	655.63
BGWC-32	699.52	30.82	668.70	33.93	665.59	35.03	664.49
BGWC-34D	675.52	9.90	665.62	14.84	660.68	15.98	659.54
BGWC-35D	695.93	21.27	674.66	25.20	670.73	29.03	666.90
BGWC-36D	701.17	9.95	691.22	17.60	683.57	33.26	667.91
BGWC-37D	696.12	--	--	--	--	29.34	666.78
BGWC-38D	700.47	--	--	--	--	32.58	667.89
BGWC-39	679.28	--	--	--	--	--	--
BGWC-40	689.64	--	--	--	--	--	--
BGWA-33 ⁽²⁾	743.34	53.59	689.75	60.95	682.39	76.22	667.12

Notes:

- = not applicable

-- = Well not installed at the time of the event.

ft MSL = feet mean sea level

ft BTOC = feet below top of casing

NM = Well not measured at the time of the event.

(1) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88).

(2) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

Table 4
Groundwater Gradient and Flow Velocity Calculations for 2019
Plant Bowen AP-1, Bartow County, Georgia

Flow Path Direction ⁽¹⁾	Mar 5, 2019				Apr 1, 2019				Sep 19, 2019				Average $\Delta h/\Delta l$ (ft/ft)
	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	
Northwest Flow Path	695	665.74	2,850	0.010	695	658.92	2,250	0.016	685	657.3	2,530	0.011	0.012
West Flow Path	700	681.43	1,400	0.013	700	664.98	1,275	0.027	690	664.19	880	0.029	0.023
South/Southwest Flow Path	700	691.75	1,875	0.004	700	681.73	1,675	0.011	690	669.07	995	0.021	0.012

Flow Path Direction ⁽¹⁾	Averaged for 2019			
	K (ft/d)	n	$\Delta h/\Delta l$ (ft/ft)	V (ft/d) ⁽²⁾
Northwest Flow Path	2.4	0.3	0.012	0.10
West Flow Path	2.4	0.3	0.023	0.19
South/Southwest Flow Path	2.4	0.3	0.012	0.10

Notes:

ft = feet

ft/d = feet per day

ft/ft = feet per foot

h_1, h_2 = point of interpreted groundwater elevation

$\Delta h/\Delta l$ = hydraulic gradient

K = hydraulic conductivity

Δl = distance between location 1 and 2

n = effective porosity

V = groundwater flow velocity

(1) Flow path direction relative to the orientation of AP-1 and illustrated on Figures 3, 4, and 5 of associated report.

(2) Groundwater flow velocity equation: $V = [K * (\Delta h/\Delta l)] / n$

Table 5
Summary of Groundwater Analytical Data
Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWA-2	BGWA-2	BGWA-2	BGWA-2	BGWA-29	BGWA-29	BGWA-29	BGWC-7	BGWC-7	BGWC-7	BGWC-8	BGWC-8	BGWC-8	BGWC-9 ⁽⁴⁾	BGWC-9 ⁽⁴⁾		
Sample Date:	2/25/2019	4/1/2019	5/2/2019	9/23/2019	2/27/2019	4/1/2019	9/23/2019	2/28/2019	4/2/2019	9/24/2019	2/25/2019	4/1/2019	9/24/2019	4/1/2019	9/24/2019		
Parameter ^(1,2,3)																	
APPENDIX III	Boron*	--	ND (0.0076 J)	ND (0.015 J)	ND (0.0069 J)	--	ND (0.0048 J)	ND (0.0052 J)	--	1.4	1.6	--	ND (0.046 J)	0.060	0.50	0.51	
	Calcium*	--	48.2	44.8	36.3	--	24.6	19.2	--	140	151	--	47.2	42.4	59.3	57.6	
	Chloride*	--	4.2	4.3	3.1	--	1.6	1.2	--	9.4	8.0	--	1.8	1.5	13.4	13.2	
	Fluoride*	ND	ND (0.047 J)	ND	ND (0.076 J)	ND	ND	ND	ND (0.23 J)	ND (0.22 J)	ND (0.12 J)	ND	ND	ND	0.33	ND (0.096 J)	
	pH*	7.78	7.70	7.71	7.58	8.00	7.85	7.98	7.05	6.99	6.92	7.75	7.57	7.53	7.03	7.14	
	Sulfate*	--	10.8	11.2	9.0	--	5.2	6.6	--	334	266	--	30.5	36.5	81.4	89.0	
	TDS*	--	226	--	186	--	114	122	--	728	733	--	191	193	326	325	
APPENDIX IV	Antimony	ND	--	--	--	ND	--	--	ND	--	--	ND	--	--	--	--	
	Arsenic	ND	ND (0.00049 J)	--	ND (0.00095 J)	ND (0.0011 J)	ND (0.00019 J)	ND (0.00053 J)	ND (0.0011 J)	ND (0.0016 J)	ND (0.0031 J)	ND	ND (0.00041 J)	ND (0.00047 J)	ND (0.0026 J)	ND (0.0033 J)	
	Barium	0.16	0.16	--	0.21	0.013	0.014	0.016	0.041	0.031	0.035	0.03	0.025	0.030	0.027	0.035	
	Beryllium	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Cadmium	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
	Chromium	ND	ND	--	ND	ND	ND	ND (0.00047 J)	ND	ND	ND (0.00055 J)	ND	ND (0.00091 J)	0.063	ND	ND	
	Cobalt⁺	ND	ND (0.00014 J)	ND	ND (0.00047 J)	ND	ND	ND	ND (0.00067 J)	ND (0.00094 J)	ND (0.00078 J)	ND	ND (0.000056 J)	ND (0.0012 J)	ND (0.00024 J)	ND	
	Fluoride	ND	ND (0.047 J)	ND	ND (0.076 J)	ND	ND	ND	ND (0.23 J)	ND (0.22 J)	ND (0.12 J)	ND	ND	ND	0.33	ND (0.096 J)	
	Lead	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND (0.000092 J)	ND (0.000056 J)
	Lithium	ND	ND	--	ND	ND	ND (0.00059 J)	ND (0.00089 J)	ND (0.0086 J)	ND (0.0073 J)	ND (0.0083 J)	ND	ND	ND	ND	ND (0.0012 J)	ND (0.0011 J)
	Mercury	ND	ND	--	ND	ND (0.000065 J)	ND	ND	ND (0.000053 J)	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum⁺	ND	ND (0.0014 J)	ND	ND (0.0017 J)	ND	ND (0.00053 J)	ND	0.016	0.011	ND (0.010 J)	ND	ND (0.00054 J)	ND (0.0016 J)	ND (0.0027 J)	ND (0.0041 J)	
	Comb. Radium 226/228	1.43	1.44 U	--	1.82	0.941 U	0.660 U	1.25	1.38	1.57	1.85	1.03 U	0.474 U	1.69	0.225 U	1.65	
	Selenium	ND	ND (0.00011 J)	--	ND	ND	ND	ND	ND	ND	ND	ND	ND (0.00015 J)	ND	ND (0.00040 J)	ND	
Thallium	ND	ND (0.00011 J)	--	ND (0.00011 J)	ND	ND	ND	ND	ND (0.000070 J)	ND (0.000087 J)	ND	ND	ND	ND (0.000065 J)	ND		

Notes:

-- = Parameter was not analyzed

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540C, and combined radium 226/228 by EPA Methods 9315/9320. The pH value presented was recorded at the time of sample collection in the field.

(3) Appendix III parameters with a "*" exhibited statistically significant increases (SSIs) over background concentrations during the October 2017 detection monitoring event. Similarly, Appendix IV parameters with a "+" exhibited statistically significant levels (SSLs) over established Groundwater Protection Standards (GWPS) during the April 2019 assessment monitoring event.

(4) Well was not sampled during the February/March 2019 sampling event due to elevated turbidity.

(5) Value J-flagged by laboratory due to an elevated dilution factor required to process the sample. The result is above the RL of 0.1 mg/L for a dilution factor of 1.

(6) Well serves as a delineation monitoring well.

(7) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

(8) The value exceeds the Maximum Contaminant Level (MCL) for arsenic (0.010 mg/L). A demonstration documenting a naturally occurring source is included in Appendix C of this report.

(9) Value J-flagged by laboratory. The result is above the UPL of 0.034 mg/L. The concentration reported for the September 2019 event is consistent with historical data and therefore deemed an exceedance in spite of the assigned J-flag.

Table 5
Summary of Groundwater Analytical Data
Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWC-10	BGWC-10	BGWC-10	BGWC-12	BGWC-12	BGWC-12	BGWC-14	BGWC-14	BGWC-14	BGWC-16	BGWC-16	BGWC-16	BGWC-17	BGWC-17	BGWC-17	
Sample Date:	2/28/2019	4/2/2019	9/25/2019	2/28/2019	4/1/2019	9/25/2019	3/6/2019	4/4/2019	9/25/2019	2/25/2019	4/2/2019	9/26/2019	2/27/2019	4/2/2019	9/26/2019	
Parameter ^(1,2,3)																
APPENDIX III	Boron*	--	0.51 J ⁽⁵⁾	0.49	--	0.86 J ⁽⁵⁾	1.1	--	0.79 J ⁽⁵⁾	0.88	--	1.1	1.5	--	0.95 J ⁽⁵⁾	2.5
	Calcium*	--	57.8	58.1	--	94.8	115	--	98	110	--	117	136	--	63.9	94.2
	Chloride*	--	24.1	25.1	--	24.1	23.6	--	33.7	31.9	--	20.3	28.7	--	18.7	47.1
	Fluoride*	ND (0.14 J)	ND (0.044 J)	ND (0.075 J)	ND (0.18 J)	ND (0.065 J)	ND (0.13 J)	0.88	0.44	ND (0.11 J)	ND (0.13 J)	ND (0.23 J)	ND	ND (0.26 J)	ND (0.14 J)	ND (0.071 J)
	pH*	7.55	7.54	7.37	7.28	7.23	7.10	7.33	7.33	7.74	6.74	6.75	6.70	7.38	7.22	7.32
	Sulfate*	--	105	93.7	--	239	205	--	255	181	--	272	288	--	86.9	219
	TDS*	--	355	388	--	191	690	--	617	637	--	604	688	--	321	550
APPENDIX IV	Antimony	ND	--	--	ND	--	--	ND	--	--	ND	--	--	ND	--	--
	Arsenic	0.0058	0.0057	0.0058	ND	ND (0.00028 J)	ND (0.00085 J)	ND (0.0015 J)	ND (0.00041 J)	ND (0.0012 J)	ND	ND (0.00030 J)	ND (0.00074 J)	ND (0.0010 J)	ND (0.00024 J)	ND (0.00080 J)
	Barium	0.053	0.045	0.047	0.033	0.023	0.035	0.065	0.049	0.066	0.028	0.025	0.031	0.014	0.015	0.023
	Beryllium	ND	ND	ND	ND (0.000076 J)	ND	ND	ND	ND	ND	ND (0.000087 J)	ND (0.000063 J)	ND (0.000080 J)	ND	ND	ND
	Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0016	0.0014	ND (0.0017 J)	ND	ND	ND (0.00015 J)
	Chromium	ND	ND	ND	ND	ND	ND (0.00055 J)	ND	ND (0.00057 J)	ND	ND	ND	ND	ND	ND (0.00044 J)	ND
	Cobalt⁺	ND	ND (0.00027 J)	ND (0.00056 J)	ND	ND (0.00034 J)	ND (0.00040 J)	ND	ND (0.00015 J)	ND	ND (0.0071 J)	ND (0.0056 J)	0.0093	ND	ND (0.00015 J)	ND
	Fluoride	ND (0.14 J)	ND (0.044 J)	ND (0.075 J)	ND (0.18 J)	ND (0.065 J)	ND (0.13 J)	0.88	0.44	ND (0.11 J)	ND (0.13 J)	ND (0.23 J)	ND	ND (0.26 J)	ND (0.14 J)	ND (0.071 J)
	Lead	ND	ND	ND (0.00019 J)	ND	ND	ND (0.00063 J)	ND	ND	ND	ND	ND	ND (0.00034 J)	ND	ND	ND
	Lithium	ND (0.0017 J)	ND (0.0012 J)	ND	ND (0.0011 J)	ND (0.00078 J)	ND (0.0010 J)	ND	ND	ND	ND	ND (0.00049 J)	ND	ND	ND (0.00069 J)	ND
	Mercury	ND (0.000048 J)	ND	ND	ND (0.000058 J)	ND	ND	ND	ND	ND	ND	ND	ND	ND (0.00029 J)	0.00040	ND
	Molybdenum⁺	ND (0.0035 J)	ND (0.0032 J)	ND (0.0035 J)	ND	ND	ND	0.013	ND (0.0088 J)	0.012	ND	ND	ND	ND	ND	ND
	Comb. Radium 226/228	1.88	1.21 U	0.816 U	1.04	0.328 U	0.649 U	9.46	8.48	6.03	1.08	1.73	1.45	1.57	0.710 U	1.17 U
	Selenium	ND	ND	ND	ND	ND (0.00040 J)	ND	ND	ND (0.00014 J)	ND	ND	ND (0.00060 J)	ND	ND	ND (0.00077 J)	ND
Thallium	ND	ND	ND	ND	ND	ND (0.000060 J)	ND	ND	ND	ND (0.00023 J)	ND (0.00020 J)	ND (0.00023 J)	ND	ND (0.000075 J)	ND (0.00026 J)	

Notes:

-- = Parameter was not analyzed

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540C, and combined radium 226/228 by EPA Methods 9315/9320. The pH value presented was recorded at the time of sample collection in the field.

(3) Appendix III parameters with a "*" exhibited statistically significant increases (SSIs) over background concentrations during the October 2017 detection monitoring event. Similarly, Appendix IV parameters with a "+" exhibited statistically significant levels (SSLs) over established Groundwater Protection Standards (GWPS) during the April 2019 assessment monitoring event.

(4) Well was not sampled during the February/March 2019 sampling event due to elevated turbidity.

(5) Value J-flagged by laboratory due to an elevated dilution factor required to process the sample. The result is above the RL of 0.1 mg/L for a dilution factor of 1.

(6) Well serves as a delineation monitoring well.

(7) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

(8) The value exceeds the Maximum Contaminant Level (MCL) for arsenic (0.010 mg/L). A demonstration documenting a naturally occurring source is included in Appendix C of this report.

(9) Value J-flagged by laboratory. The result is above the UPL of 0.034 mg/L. The concentration reported for the September 2019 event is consistent with historical data and therefore deemed an exceedance in spite of the assigned J-flag.

Table 5
Summary of Groundwater Analytical Data
Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWC-18	BGWC-18	BGWC-18	BGWC-19	BGWC-19	BGWC-19	BGWC-20	BGWC-20	BGWC-20	BGWC-21 ⁽⁴⁾	BGWC-21 ⁽⁴⁾	BGWC-22	BGWC-22	BGWC-22	BGWC-22	
Sample Date:	2/27/2019	4/2/2019	9/26/2019	3/1/2019	4/3/2019	9/26/2019	2/27/2019	4/3/2019	9/26/2019	4/3/2019	9/30/2019	3/1/2019	4/3/2019	5/2/2019	9/27/2019	
Parameter ^(1,2,3)																
APPENDIX III	Boron*	--	0.56 J ⁽⁵⁾	1.1	--	0.51	0.96	--	2.6	4.4	0.12	0.040 J ⁽⁹⁾	--	7.9	10.1	16.4
	Calcium*	--	53.3	91.7	--	51.3	80.8	--	220	243	43.4	43.2	--	458	647	658
	Chloride*	--	4.5	60.5	--	9.7	26.0	--	144	128	5.0	4.7	--	856	999	996
	Fluoride*	ND	ND (0.044 J)	ND (0.052 J)	ND (0.14 J)	ND (0.051 J)	ND	ND (0.13 J)	ND (0.072 J)	ND	ND (0.032 J)	ND (0.066 J)	0.34	ND (0.23 J)	1.4	1.0
	pH*	6.58	6.48	6.99	6.70	6.58	6.55	7.26	7.14	7.10	7.69	7.70	6.90	6.77	6.92	6.79
	Sulfate*	--	70.1	114	--	90.6	130	--	593	498	61.9	54.5	--	720	827	905
	TDS*	--	258	470	--	259	428	--	1090	1210	244	256	--	2180	--	3260
APPENDIX IV	Antimony	ND	--	--	ND	--	--	ND	--	--	--	--	ND	--	--	--
	Arsenic	ND (0.00083 J)	ND (0.00015 J)	ND (0.00046 J)	ND	ND (0.00017 J)	ND (0.00067 J)	ND (0.0014 J)	ND (0.00027 J)	ND (0.00087 J)	ND (0.00038 J)	ND	ND (0.0011 J)	ND (0.0021 J)	--	ND (0.0013 J)
	Barium	0.027	0.028	0.042	0.028	0.033	0.049	0.032	0.029	0.032	0.033	0.036	0.087	0.082	--	0.095
	Beryllium	ND (0.00011 J)	ND (0.000052 J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND (0.00012 J)	ND (0.000067 J)	--	ND (0.000099 J)
	Cadmium	ND	ND (0.000073 J)	ND	ND	ND	ND (0.00020 J)	ND	ND	ND	ND	ND	ND (0.00013 J)	ND	--	ND
	Chromium	ND	ND	ND	ND	ND	ND	ND (0.0048 J)	ND (0.00088 J)	ND (0.0022 J)	ND	ND	ND	ND	--	ND
	Cobalt⁺	ND	ND (0.00012 J)	ND	ND	ND (0.000072 J)	ND	ND	ND (0.00024 J)	ND	ND (0.00064 J)	ND (0.00040 J)	0.017	0.019	ND (0.023 J)	0.027
	Fluoride	ND	ND (0.044 J)	ND (0.052 J)	ND (0.14 J)	ND (0.051 J)	ND	ND (0.13 J)	ND (0.072 J)	ND	ND (0.032 J)	ND (0.066 J)	0.34	ND (0.23 J)	1.4	1.0
	Lead	ND	ND (0.000081 J)	ND	ND	ND	ND	ND	ND	ND	ND (0.000068 J)	ND (0.000073 J)	ND (0.00033 J)	ND	--	ND (0.000054 J)
	Lithium	ND	ND	ND	ND	ND	ND	ND (0.015 J)	ND (0.012 J)	ND (0.018 J)	ND	ND	ND (0.022 J)	ND (0.024 J)	--	0.039
	Mercury	ND (0.000079 J)	ND	ND	ND (0.00005 J)	ND	ND	ND (0.000066 J)	ND	ND	ND	ND	ND (0.000042 J)	ND	--	ND
	Molybdenum⁺	ND	ND	ND	ND	ND (0.00023 J)	ND	0.013	0.012	0.015	ND (0.0019 J)	ND (0.0030 J)	0.039	0.039	0.043	0.045
	Comb. Radium 226/228	1.12	0.814 U	0.973 U	0.989 U	0.980 U	1.16	1.24	0.567 U	0.662 U	0.532 U	1.16 U	3.32	2.48	--	2.83
	Selenium	ND	ND (0.0010 J)	ND	ND	ND (0.00058 J)	ND	ND	ND	ND	ND (0.00012 J)	ND	ND	ND	--	ND
Thallium	ND	ND	ND (0.000071 J)	ND	ND	ND (0.000080 J)	ND	ND	ND	ND	ND	ND (0.00074 J)	ND (0.00070 J)	--	ND (0.00088 J)	

Notes:

-- = Parameter was not analyzed

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540C, and combined radium 226/228 by EPA Methods 9315/9320. The pH value presented was recorded at the time of sample collection in the field.

(3) Appendix III parameters with a "*" exhibited statistically significant increases (SSIs) over background concentrations during the October 2017 detection monitoring event. Similarly, Appendix IV parameters with a "+" exhibited statistically significant levels (SSLs) over established Groundwater Protection Standards (GWPS) during the April 2019 assessment monitoring event.

(4) Well was not sampled during the February/March 2019 sampling event due to elevated turbidity.

(5) Value J-flagged by laboratory due to an elevated dilution factor required to process the sample. The result is above the RL of 0.1 mg/L for a dilution factor of 1.

(6) Well serves as a delineation monitoring well.

(7) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

(8) The value exceeds the Maximum Contaminant Level (MCL) for arsenic (0.010 mg/L). A demonstration documenting a naturally occurring source is included in Appendix C of this report.

(9) Value J-flagged by laboratory. The result is above the UPL of 0.034 mg/L. The concentration reported for the September 2019 event is consistent with historical data and therefore deemed an exceedance in spite of the assigned J-flag.

Table 5
Summary of Groundwater Analytical Data
Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWC-23	BGWC-23	BGWC-23	BGWC-24	BGWC-24	BGWC-24	BGWC-25	BGWC-25	BGWC-25	BGWC-30	BGWC-30	BGWC-30	BGWA-6 ⁽⁶⁾	BGWA-6 ⁽⁶⁾	BGWA-33 ⁽⁷⁾	BGWA-33 ⁽⁷⁾	BGWA-33 ⁽⁷⁾	
Sample Date:	3/1/2019	4/3/2019	9/27/2019	3/1/2019	4/3/2019	9/30/2019	3/1/2019	4/4/2019	9/30/2019	3/1/2019	4/2/2019	9/27/2019	4/2/2019	9/23/2019	4/3/2019	7/9/2019	9/27/2019	
Parameter ^(1,2,3)																		
APPENDIX III	Boron*	--	6.5	12.0	--	23.3	36.8	--	ND (0.020 J)	0.038 J ⁽⁹⁾	--	6.1 J ⁽⁵⁾	2.4	ND (0.037 J)	ND (0.0099 J)	0.66	ND (0.027 J)	ND (0.033 J)
	Calcium*	--	396	533	--	945	1050	--	54.8	47.8	--	181	103	64.1	57.9	44.9	--	41.2
	Chloride*	--	679	918	--	1890	2040	--	3.8	5.2	--	333	143	9	8.6	5.2	--	394
	Fluoride*	0.38	ND (0.10 J)	0.54	1.0	3.0	1.2	ND (0.12 J)	ND	ND (0.065 J)	ND (0.24 J)	0.68	ND (0.13 J)	ND	ND	ND (0.085 J)	--	0.33
	pH*	7.16	7.00	7.02	6.57	6.57	6.58	7.50	7.38	7.36	7.32	7.22	7.20	7.24	7.28	7.67	--	7.75
	Sulfate*	--	603	721	--	648	758	--	11.4	10.7	--	153	51.7	29.8	27.5	26.2	--	200
	TDS*	--	1990	2540	--	ND (13 J)	4430	--	196	220	--	773	629	295	296	235	--	275
APPENDIX IV	Antimony	ND	--	--	ND	--	--	ND	--	--	ND	--	--	--	--	--	--	--
	Arsenic	ND (0.0023 J)	ND (0.00093 J)	ND (0.00096 J)	ND (0.0032 J)	ND (0.0019 J)	ND (0.0027 J)	ND (0.0022 J)	ND (0.0016 J)	ND (0.0020 J)	ND	ND (0.00024 J)	ND (0.00042 J)	ND (0.00032 J)	ND (0.0012 J)	ND (0.0020 J)	--	ND (0.0023 J)
	Barium	0.097	0.087	0.11	0.12	0.095	0.098	0.021	0.016	0.016	0.078	0.075	0.080	0.011	0.012	0.025	--	0.035
	Beryllium	ND	ND	ND	ND	ND	ND (0.000093 J)	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	ND
	Cadmium	ND (0.00019 J)	ND	ND	0.0058	0.0053	0.0075	ND	ND	ND	ND	ND (0.000079 J)	ND	ND	ND	ND	--	ND
	Chromium	ND (0.0033 J)	ND (0.00057 J)	ND	ND	ND	ND	ND	ND	ND (0.0021 J)	ND	ND (0.00095 J)	ND (0.00056 J)	ND	ND	ND	--	ND
	Cobalt⁺	ND	ND (0.00058 J)	ND (0.00034 J)	ND (0.0055 J)	ND (0.0048 J)	ND (0.0048 J)	ND	ND (0.00022 J)	ND	ND	ND (0.00022 J)	ND	ND (0.00016 J)	ND (0.00042 J)	ND (0.00011 J)	--	ND
	Fluoride	0.38	ND (0.10 J)	0.54	1.0	3.0	1.2	ND (0.12 J)	ND	ND (0.065 J)	ND (0.24 J)	0.68	ND (0.13 J)	ND	ND	ND (0.085 J)	--	0.33
	Lead	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND (0.00018 J)	ND (0.000070 J)	ND	ND	--	ND
	Lithium	ND (0.017 J)	ND (0.013 J)	ND (0.024 J)	ND (0.0068 J)	ND (0.0048 J)	ND (0.0077 J)	ND	ND	ND	ND (0.0044 J)	ND (0.0041 J)	ND (0.0012 J)	ND	ND	ND	--	ND
	Mercury	ND (0.000044 J)	ND	ND	0.00093	0.0013	0.0011	ND (0.000047 J)	ND	ND	ND (0.0001 J)	ND	ND	ND	ND	ND	--	ND
	Molybdenum⁺	0.013	0.012	0.012	ND	ND (0.00095 J)	ND (0.00099 J)	ND	ND (0.00096 J)	ND	0.011	0.01	ND (0.0036 J)	ND (0.00026 J)	ND	0.034	0.034	0.019
	Comb. Radium 226/228	2.24	2.86	2.28	3.37	3.6	2.73	0.634 U	0.346 U	0.953 U	2.47	2.29	1.23 U	0.640 U	1.13	0.690 U	--	1.02 U
	Selenium	ND	ND	ND	ND	ND (0.0038 J)	ND (0.0065 J)	ND	ND	ND	ND (0.010 J)	ND (0.0092 J)	ND (0.0033 J)	ND (0.00031 J)	ND	ND (0.00013 J)	--	ND
Thallium	ND	ND	ND (0.00018 J)	ND (0.00070 J)	ND (0.00064 J)	ND (0.00069 J)	ND	ND	ND	ND (0.00024 J)	ND (0.00024 J)	ND (0.00014 J)	ND (0.000062 J)	ND (0.000060 J)	ND	--	ND	

Notes:

-- = Parameter was not analyzed

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540C, and combined radium 226/228 by EPA Methods 9315/9320. The pH value presented was recorded at the time of sample collection in the field.

(3) Appendix III parameters with a "*" exhibited statistically significant increases (SSIs) over background concentrations during the October 2017 detection monitoring event. Similarly, Appendix IV parameters with a "+" exhibited statistically significant levels (SSLs) over established Groundwater Protection Standards (GWPS) during the April 2019 assessment monitoring event.

(4) Well was not sampled during the February/March 2019 sampling event due to elevated turbidity.

(5) Value J-flagged by laboratory due to an elevated dilution factor required to process the sample. The result is above the RL of 0.1 mg/L for a dilution factor of 1.

(6) Well serves as a delineation monitoring well.

(7) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

(8) The value exceeds the Maximum Contaminant Level (MCL) for arsenic (0.010 mg/L). A demonstration documenting a naturally occurring source is included in Appendix C of this report.

(9) Value J-flagged by laboratory. The result is above the UPL of 0.034 mg/L. The concentration reported for the September 2019 event is consistent with historical data and therefore deemed an exceedance in spite of the assigned J-flag.

Table 5
Summary of Groundwater Analytical Data
Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWC-31 ⁽⁶⁾	BGWC-31 ⁽⁶⁾	BGWC-32 ⁽⁶⁾	BGWC-32 ⁽⁶⁾	BGWC-32 ⁽⁶⁾	BGWC-32 ⁽⁶⁾	BGWC-34D ⁽⁶⁾	BGWC-34D ⁽⁶⁾	BGWC-35D ⁽⁶⁾	BGWC-35D ⁽⁶⁾	BGWC-36D ⁽⁶⁾	BGWC-36D ⁽⁶⁾	BGWC-37D ⁽⁶⁾	BGWC-38D ⁽⁶⁾	BGWC-39 ⁽⁶⁾	BGWC-40 ⁽⁶⁾	
Sample Date:	4/4/2019	9/24/2019	4/5/2019	5/3/2019	9/26/2019	11/15/2019	4/4/2019	9/24/2019	4/4/2019	9/26/2019	4/2/2019	9/27/2019	5/3/2019	5/2/2019	12/13/2019	12/16/2019	
Parameter ^(1,2,3)																	
APPENDIX III	Boron*	0.59 J ⁽⁵⁾	0.72	4.6 J ⁽⁵⁾	3.4	6.1	6.1	0.15	0.26	8.3	10	6.7 J ⁽⁵⁾	6.8	--	--	13.4	2.5
	Calcium*	69.3	70.7	265	203	290	346	104	102	442	417	200	184	--	--	558	162
	Chloride*	32.7	38.0	270	257	358	455	28.4	32.2	605	500	378	357	--	--	703	254
	Fluoride*	ND	ND	0.66	1.3	ND (0.15 J)	0.51	ND (0.035 J)	ND	ND (0.26 J)	ND (0.11 J)	0.44	ND (0.26 J)	--	--	ND (0.16 J)	ND (0.13 J)
	pH*	7.19	7.29	7.28	7.18	7.31		7.32	7.32	7.20	7.09	6.48	7.09	7.51	7.32	7.13	7.34
	Sulfate*	105	97.2	312	304	336	413	88.0	80.7	643	517	192	191	--	--	651	60.4
	TDS*	350	419	1160	--	1410	1540	419	442	1930	2240	976	1030	--	--	2550	753
APPENDIX IV	Antimony	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	Arsenic	ND (0.0036 J)	0.0055	ND (0.00093 J)	--	ND (0.0018 J)	--	0.015 ⁽⁸⁾	0.016 ⁽⁸⁾	ND (0.0018 J)	ND (0.0035 J)	ND (0.00039 J)	ND (0.00064 J)	--	--	--	--
	Barium	0.032	0.038	0.085	--	0.12	--	0.031	0.036	0.071	0.085	0.074	0.084	--	--	--	--
	Beryllium	ND	ND	ND	--	ND	--	ND	ND	ND	ND	ND (0.000070 J)	ND	--	--	--	--
	Cadmium	ND	ND	ND	--	ND	--	ND	ND	ND	ND	ND	ND	--	--	--	--
	Chromium	ND	ND (0.00064 J)	ND	--	ND (0.00062 J)	--	ND	ND	ND (0.0011 J)	ND (0.00067 J)	ND (0.0010 J)	ND (0.00060 J)	--	--	--	--
	Cobalt⁺	ND (0.00051 J)	ND (0.00041 J)	0.011	ND (0.0078 J)	0.010	0.0077	ND (0.00042 J)	ND	ND (0.0011 J)	ND (0.0019 J)	ND (0.0011 J)	ND (0.00090 J)	--	--	(ND 0.0033 J)	--
	Fluoride	ND	ND	0.66	1.3	ND (0.15 J)	--	ND (0.035 J)	ND	ND (0.26 J)	ND (0.11 J)	0.44	ND (0.26 J)	--	--	--	--
	Lead	ND (0.00065 J)	ND (0.00040 J)	ND	--	ND	--	ND (0.000054 J)	ND	ND (0.00023 J)	ND (0.000069 J)	ND (0.00067 J)	ND (0.00050 J)	--	--	--	--
	Lithium	ND	ND	ND	--	ND	--	ND (0.00068 J)	ND	ND (0.0096 J)	ND (0.013 J)	ND (0.0021 J)	ND (0.0028 J)	--	--	--	--
	Mercury	ND	ND	ND	--	ND	--	ND	ND	ND	ND	ND	ND	--	--	ND	--
	Molybdenum⁺	ND (0.00033 J)	ND	ND (0.0035 J)	ND (0.0048 J)	ND (0.0030 J)	--	ND (0.0011 J)	ND	0.030	0.033	0.011	0.013	0.040	0.11	--	--
	Comb. Radium 226/228	1.49	1.68	2.2	--	2.36	--	1.89	3.98	2.37	3.09	2.81	1.66	--	--	--	--
	Selenium	ND (0.00080 J)	ND	ND (0.00015 J)	--	ND	--	ND (0.00010 J)	ND	ND	ND	0.014	ND (0.0071 J)	--	--	--	--
Thallium	ND	ND	ND (0.00046 J)	--	ND (0.00017 J)	--	ND	ND	ND	ND	ND (0.00022 J)	ND (0.00037 J)	--	--	--	--	

Notes:

-- = Parameter was not analyzed

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

TDS = total dissolved solids

U = Indicates the parameter was not detected above the analytical minimum detectable concentration (MDC) (Specific to combined radium 226/228)

(1) Appendix III/IV parameter per 40 CFR 257 Subpart D. Parameters are reported in units of milligrams per liter (mg/L), except for pH reported as s.u. (standard units) and combined radium reported as picocuries per liter (pCi/L).

(2) Metals were analyzed by EPA Method 6020B, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540C, and combined radium 226/228 by EPA Methods 9315/9320. The pH value presented was recorded at the time of sample collection in the field.

(3) Appendix III parameters with a "*" exhibited statistically significant increases (SSIs) over background concentrations during the October 2017 detection monitoring event. Similarly, Appendix IV parameters with a "+" exhibited statistically significant levels (SSLs) over established Groundwater Protection Standards (GWPS) during the April 2019 assessment monitoring event.

(4) Well was not sampled during the February/March 2019 sampling event due to elevated turbidity.

(5) Value J-flagged by laboratory due to an elevated dilution factor required to process the sample. The result is above the RL of 0.1 mg/L for a dilution factor of 1.

(6) Well serves as a delineation monitoring well.

(7) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

(8) The value exceeds the Maximum Contaminant Level (MCL) for arsenic (0.010 mg/L). A demonstration documenting a naturally occurring source is included in Appendix C of this report.

(9) Value J-flagged by laboratory. The result is above the UPL of 0.034 mg/L. The concentration reported for the September 2019 event is consistent with historical data and therefore deemed an exceedance in spite of the assigned J-flag.

Table 6
Summary of Background Concentrations and Groundwater Protection Standards
Plant Bowen AP-1, Bartow County, Georgia

Analyte	Units	Background ⁽¹⁾	Federal GWPS ⁽²⁾	State GWPS ⁽³⁾
Antimony	mg/L	0.003	0.006	0.006
Arsenic	mg/L	0.005	0.01	0.01
Barium	mg/L	0.22	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.001, 0.003	0.005	0.005
Chromium	mg/L	0.01	0.1	0.1
Cobalt	mg/L	Federal: 0.005 ⁽⁴⁾ , 0.005 State: 0.01, 0.005	0.006	0.01, 0.005
Fluoride	mg/L	0.21, 0.3	4	4
Lead	mg/L	0.005	0.015	0.005
Lithium	mg/L	Federal: 0.025 ⁽⁴⁾ , 0.03 State: 0.05, 0.03	0.04	0.05, 0.03
Mercury	mg/L	0.0002, 0.0005	0.002	0.002
Molybdenum	mg/L	0.01	0.1	0.01
Selenium	mg/L	0.01	0.05	0.05
Thallium	mg/L	0.001	0.002	0.002
Combined Radium-226/228	pCi/L	1.76, 1.89	5	5

Notes:

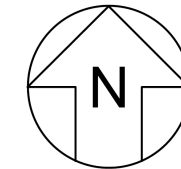
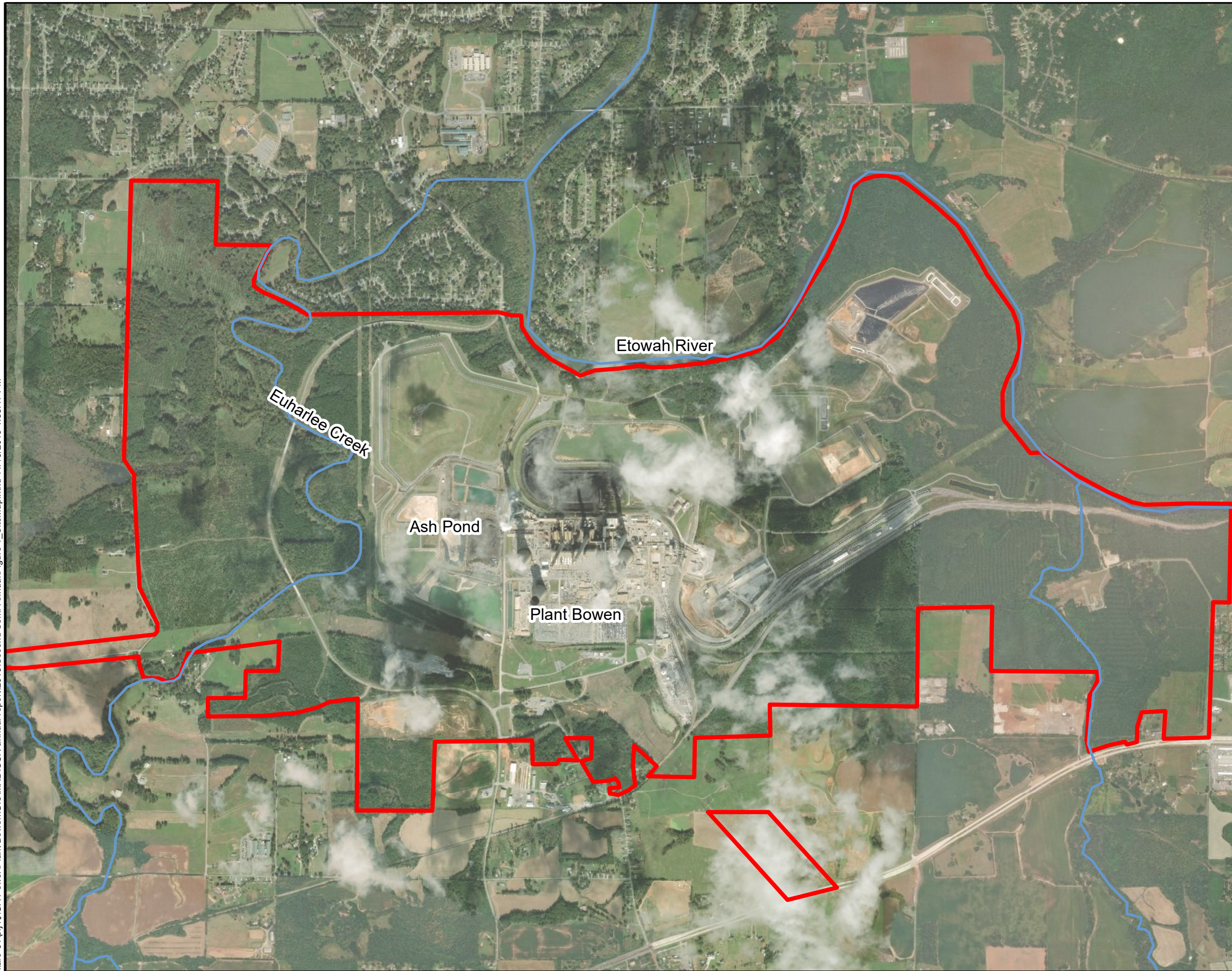
"mg/L" = milligrams per liter



"pCi/L" = picocuries per liter

1. 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). Where two numbers are present, they denote the different background concentrations for each of the two semiannual monitoring events in the order that they were determined.
2. Under 40 CFR §257.95(h)(1-3) the GWPS is: (i) the maximum contaminant level (MCL) established under §§141.62 and 141.66 of this title; (ii) where an MCL has not been established a rule-specific GWPS; or (iii) background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.
3. Under the existing 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 concentration is higher than the MCL. Where two numbers are present, they denote the different GWPS for each of the two semiannual monitoring events in the order that they were determined.
4. The background tolerance limit (TL) used to evaluate GWPS for this analyte equals half the laboratory specified reporting limit (RL). Per the Statistical Analysis Plan (SAP), and in accordance with the Unified Guidance, a non-parametric TL approach was used since the data set contained greater than 50% non-detect (ND) results for this analyte. Under this approach, the TL equals the highest value reported, for which is the laboratory RL. Since a RL may be influenced due to sample matrix interference at the time of analysis, half the RL was applied in this select case.

FIGURES

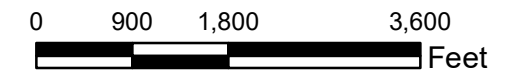
\\laro-01\proj\GA Power\Plant Bowen\GIS\MXD\CCR annual report\2019\Second Semi-Annual\Figure 1_SiteMap.mxd 11/19/2019 1:33:17 PM



LEGEND
 Approximate Site Boundary
 River or Stream



Notes:
 1. Aerial photograph source: USDA FSA, 2015.



SITE LOCATION MAP

GEORGIA POWER COMPANY
 PLANT BOWEN AP-1
 BARTOW COUNTY, GEORGIA

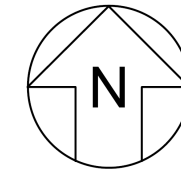
Prepared For:  Georgia Power

Prepared By:  Geosyntec
 consultants

KENNESAW, GA JANUARY 2020

FIGURE
1

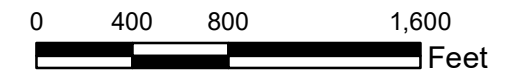
\\laro-01\proj\GA Power\Plant Bowen\GIS\MXD\CCR annual report\2019\Second Semi-Annual\Figure 2_WellMap.mxd 1/11/2020 1:55:32 AM



- LEGEND**
- Compliance Monitoring Well
 - Delineation Monitoring Well
 - Characterization Monitoring Well
 - ⊕ Groundwater Level Monitoring Piezometer



- Notes:**
1. All wells and piezometers presented are screened within the weathered fractured bedrock.
 2. Aerial photograph source: Google Earth Pro, February 2018.



MONITORING WELL NETWORK MAP

GEORGIA POWER COMPANY
PLANT BOWEN AP-1
BARTOW COUNTY, GEORGIA

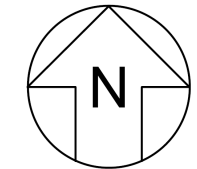
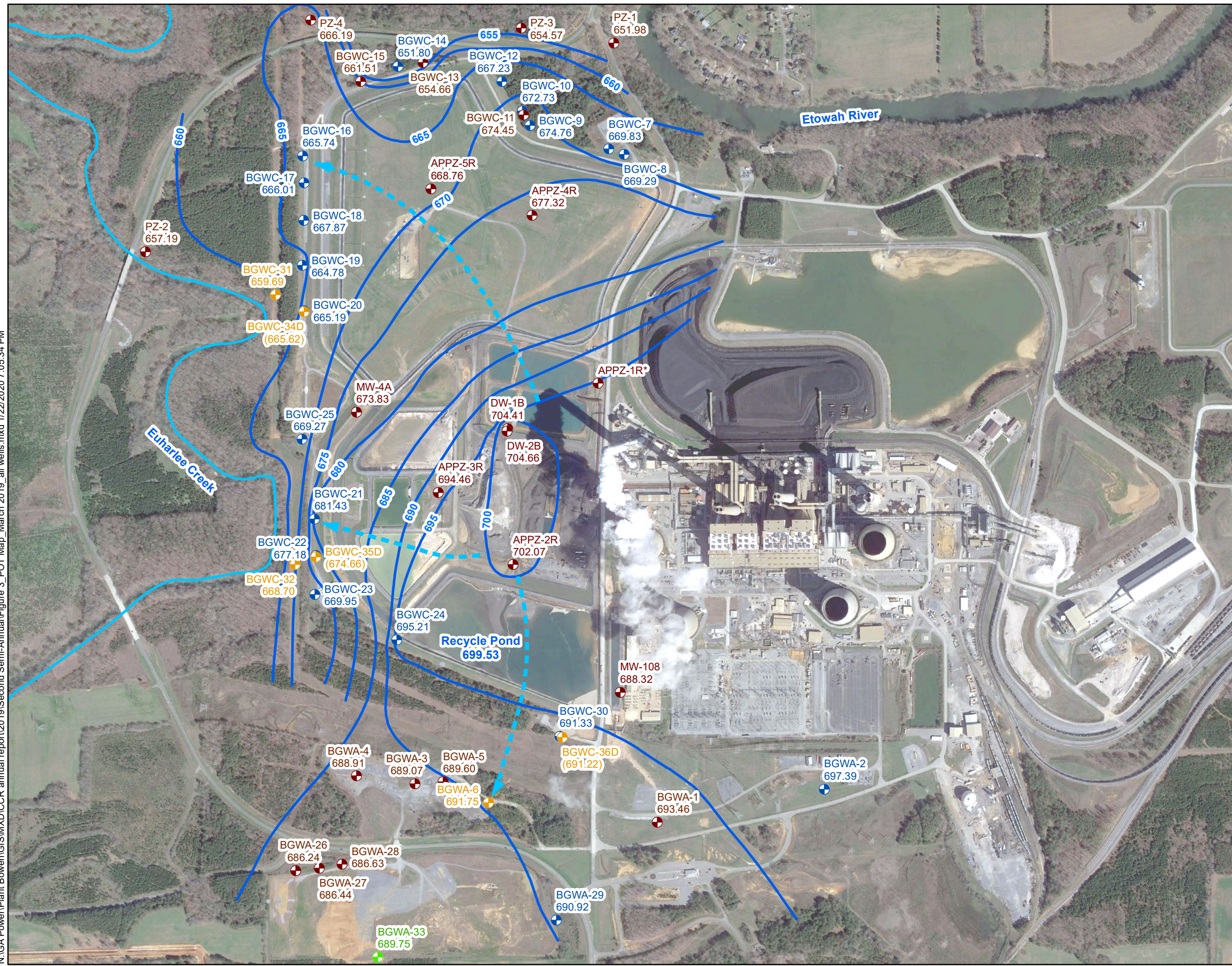
Prepared For: Georgia Power

Prepared By: Geosyntec
consultants

KENNESAW, GA JANUARY 2020

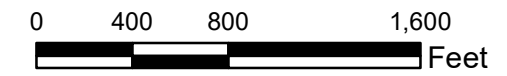
FIGURE
2

N:\GA Power\Plant Bowen\GIS\MXD\CCR annual report\2019\Second Semi-Annual\Figure 3_POT Map_March 2019_all wells.mxd 1/22/2020 7:05:34 PM



- LEGEND**
- Compliance Monitoring Well
 - Delineation Monitoring Well
 - Characterization Monitoring Well
 - Groundwater Level Monitoring Piezometer
 - Groundwater Elevation Iso-Contour
 - Approximate Groundwater Flow Direction

- Notes:**
1. Water level elevations recorded on March 5, 2019. Elevation provided in feet above mean sea level (ft AMSL) in North American Vertical Datum (NAVD) 88.
 2. Water elevation in parentheses is not used in development of groundwater contours due to well being screened at a different elevation in the formation/aquifer.
 3. "*" - Water elevation not used in development of groundwater contours due to field error.
 4. Aerial photograph source: Google Earth Pro, 2017.



POTENTIOMETRIC SURFACE CONTOUR MAP - MARCH 2019

GEORGIA POWER COMPANY
PLANT BOWEN AP-1
BARTOW COUNTY, GEORGIA

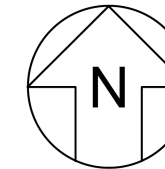
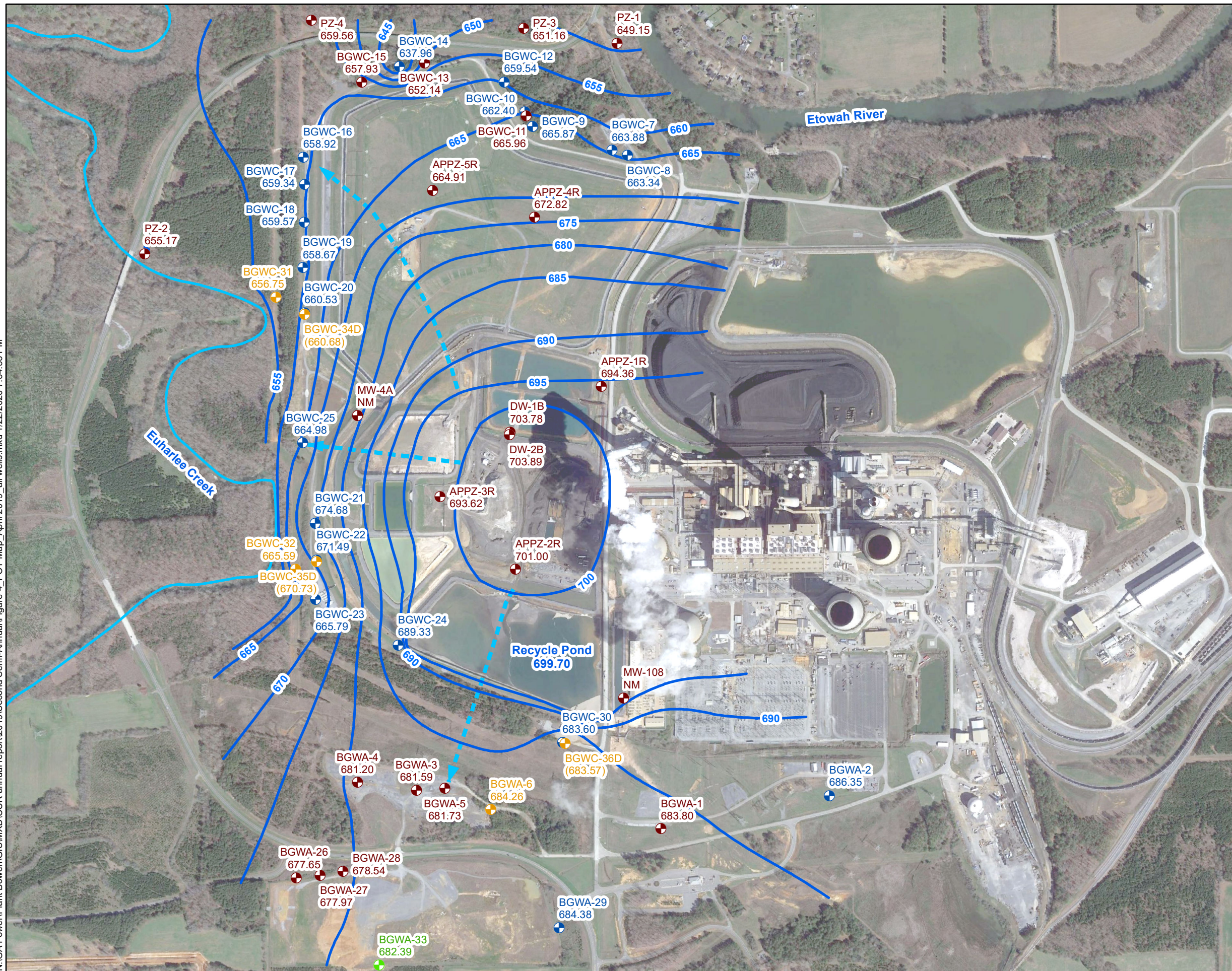
Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA JANUARY 2020

FIGURE 3

N:\GA Power\Plant Bowen\GIS\MXD\ICCR annual report\2019\Second Semi-Annual\Figure 4_POT Map_April 2019_all wells.mxd 1/22/2020 7:34:53 PM

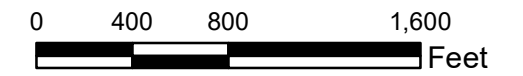


LEGEND

- Compliance Monitoring Well
- Delineation Monitoring Well
- Characterization Monitoring Well
- Groundwater Level Monitoring Piezometer
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow Direction

Notes:

1. Water level elevations recorded on April 1, 2019. Elevation provided in feet above mean sea level (ft AMSL) in North American Vertical Datum (NAVD) 88.
2. Water elevation in parentheses is not used in development of groundwater contours due to well being screened at a different elevation in the formation/aquifer.
3. NM = Well not measured at the time of the sampling event.
4. Aerial photograph source: Google Earth Pro, 2017.



POTENTIOMETRIC SURFACE CONTOUR MAP - APRIL 2019

GEORGIA POWER COMPANY
PLANT BOWEN AP-1
BARTOW COUNTY, GEORGIA

Prepared For: Georgia Power

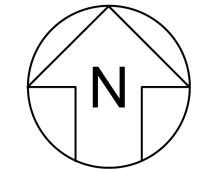
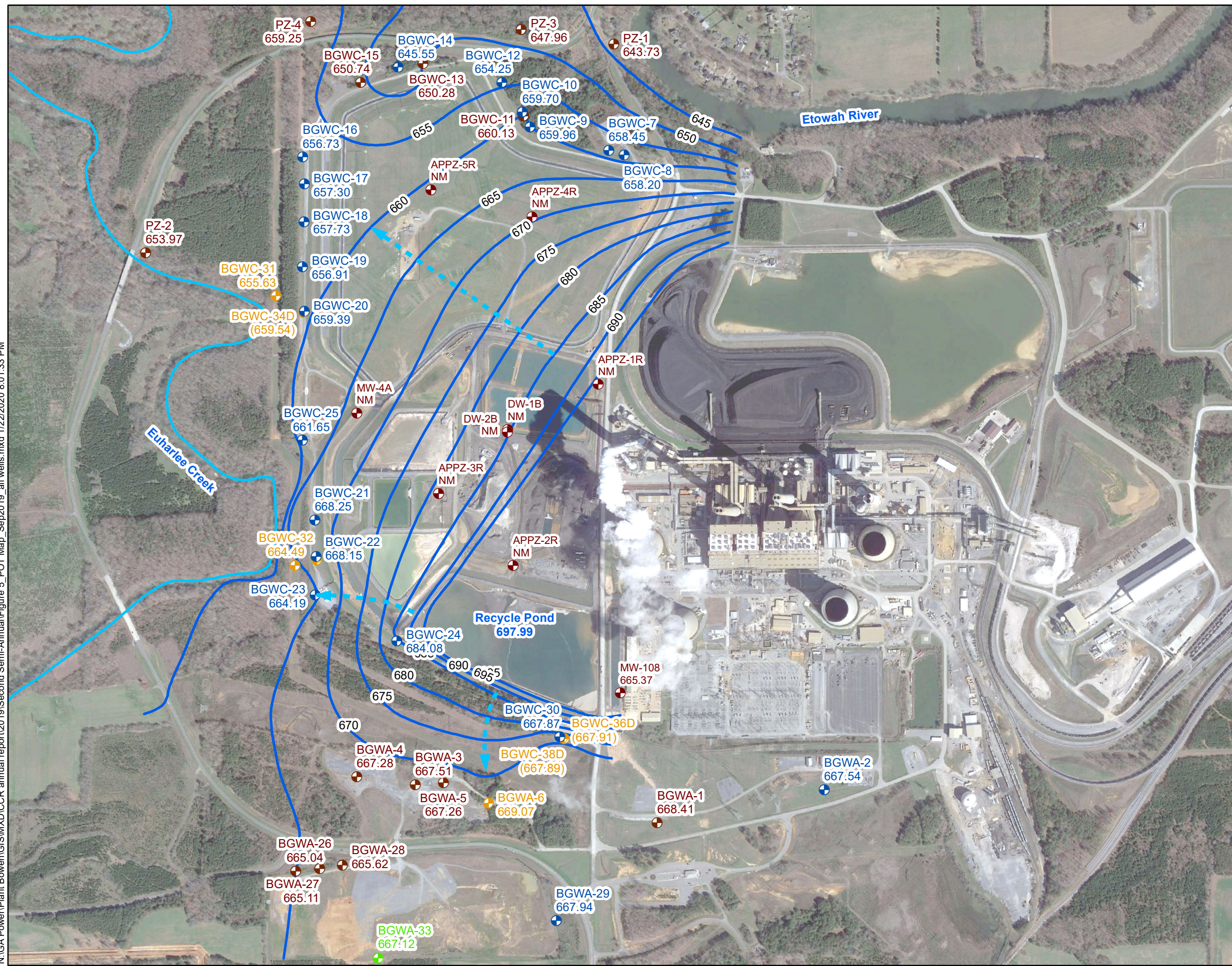
Prepared By: Geosyntec
consultants

FIGURE
4

KENNESAW, GA

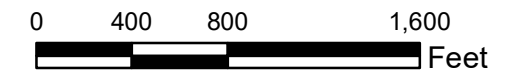
JANUARY 2020

N:\GA Power\Plant Bowen\GIS\MXD\ICCR annual report\2019\Second Semi-Annual\Figure 5_POT Map_Sep2019_all wells.mxd 1/22/2020 8:01:33 PM



- LEGEND**
- Compliance Monitoring Well
 - Delineation Monitoring Well
 - Characterization Monitoring Well
 - Groundwater Level Monitoring Piezometer
 - Groundwater Elevation Iso-Contour
 - Approximate Groundwater Flow Direction

- Notes:**
1. Water level elevations recorded on September 19, 2019. Elevation provided in feet above mean sea level (ft AMSL) in North American Vertical Datum (NAVD) 88. RecyclePond elevation recorded in October 2019
 2. Water elevation in parentheses is not used in development of groundwater contours due to well being screened at a different elevation in the formation/aquifer.
 3. NM = Well not measured at the time of the sampling event.
 4. Aerial photograph source: Google Earth Pro, 2017.



POTENTIOMETRIC SURFACE CONTOUR MAP - SEPTEMBER 2019

GEORGIA POWER COMPANY
PLANT BOWEN AP-1
BARTOW COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

FIGURE 5

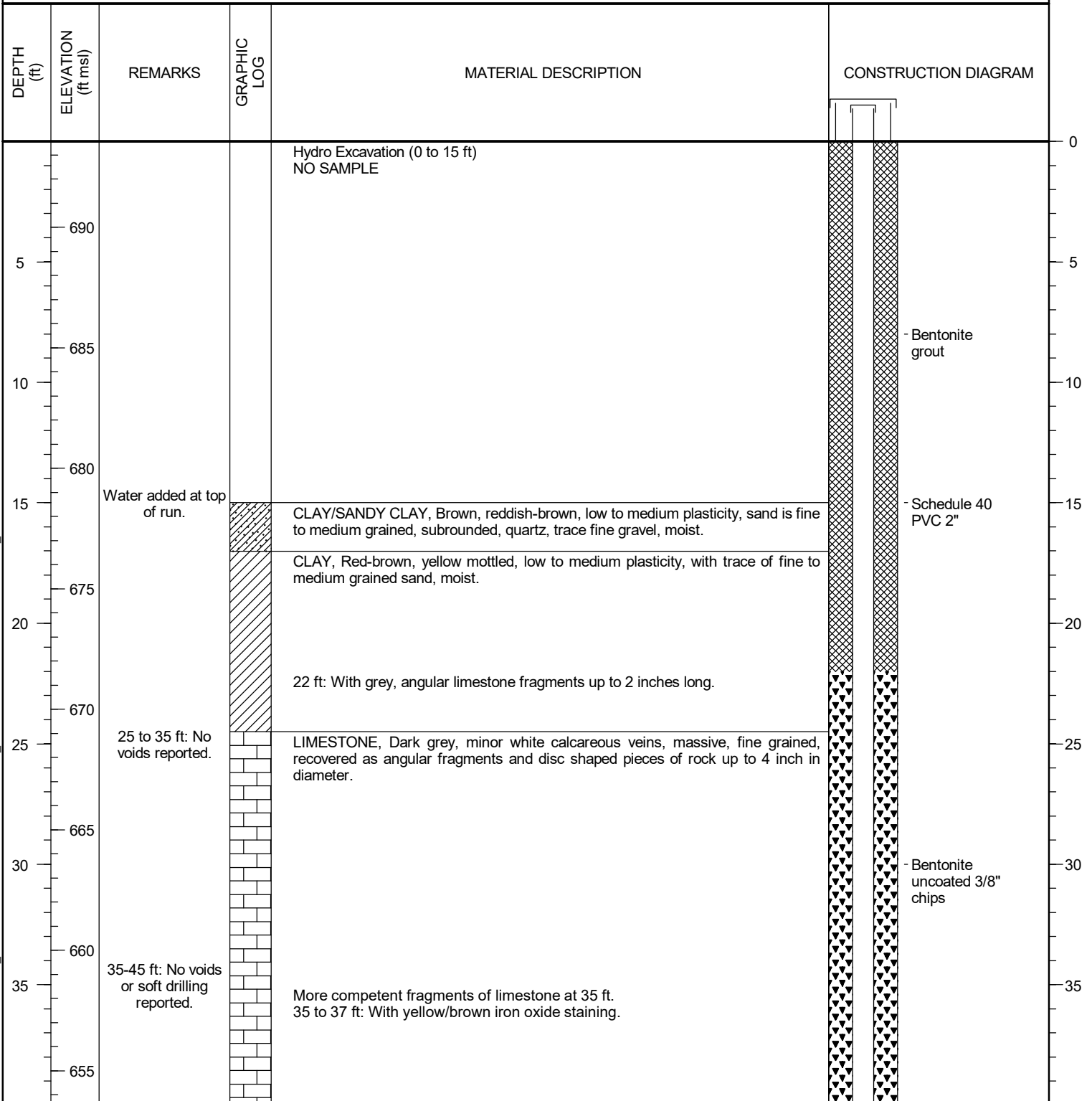
KENNESAW, GA

JANUARY 2020

APPENDIX A

Boring and Well Construction Logs

CLIENT Southern Company Services **PROJECT NAME** Groundwater SRV-AP1
PROJECT NUMBER GW6581C **PROJECT LOCATION** Euharlee, GA
DATE STARTED 4/24/19 **COMPLETED** 4/25/19 **NORTHING** 1501293.457 ft **EASTING** 2064363.994 ft
DRILLER Cascade Drilling **GROUND ELEVATION** 693.564 ft **BORING DIAMETER** 6 in
DRILLING METHOD Sonic **TOP OF CASING ELEVATION** 696.12 ft
SAMPLING METHOD 4" core 6" override **GEOPHYSICAL CONTRACTOR** ---
RIG TYPE Terrasonic 11-38212 **LOGGED BY** C. Hug **CHECKED BY** J. Ivanowski



SCS GEORGIA GW6581C_PLANT BOWEN DEEP WELL INSTALL_APRIL 2019.GPJ ACP GINT LIBRARY FROM ASHWIN.GLB 5/8/19

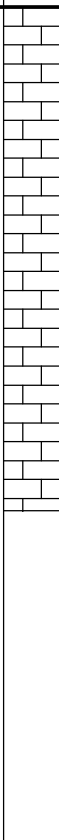
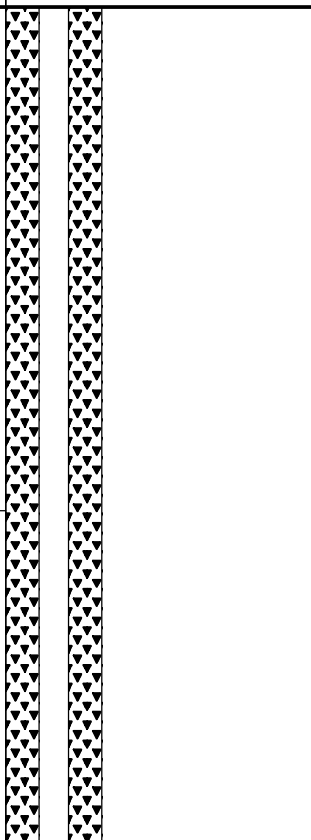


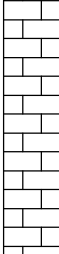
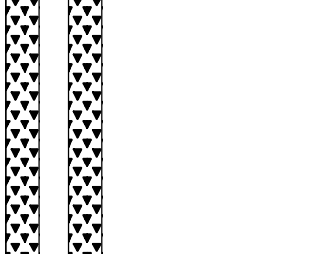
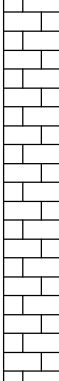
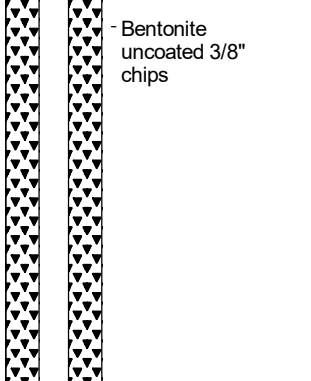


CLIENT Southern Company Services

PROJECT NAME Groundwater SRV-AP1

PROJECT NUMBER GW6581C

PROJECT LOCATION Euharlee, GA

DEPTH (ft)	ELEVATION (ft msl)	REMARKS	GRAPHIC LOG	MATERIAL DESCRIPTION	CONSTRUCTION DIAGRAM
---------------	-----------------------	---------	----------------	----------------------	----------------------

45	650	25 to 35 ft: No voids reported.		LIMESTONE, Dark grey, minor white calcareous veins, massive, fine grained, recovered as angular fragments and disc shaped pieces of rock up to 4 inch in diameter. <i>(continued)</i> 41 ft: With white, calcareous mineralization along healed fracture planes.	
55	640	No recovery, run was not lost in hole. Very soft drilling with some resistance.		54 ft: Dark grey, some calcareous veins and secondary mineralization along fracture planes, fresh, moderate strength. NO RECOVERY (55 to 65 ft)	
65	630	65 to 75 ft: No voids reported.		LIMESTONE, Dark grey, some black, massive, fine grained, minor white calcareous veins, recovered as subrounded gravel sized core fragments and cobbles. Recovered with pale grey, silty coating. Minor yellowish-brown iron oxide staining at 65 ft.	
75	620	75 to 85 ft: No voids reported.		With pale grey, silty coating and some secondary calcite mineralization along fracture planes.	 - Bentonite uncoated 3/8" chips
85	610	85 to 95 ft: No voids reported.			

SCS GEORGIA GW6581C_PLANT BOWEN DEEP WELL INSTALL_APRIL 2019.GPJ ACP GINT LIBRARY FROM ASHWIN.GLB 5/8/19

CLIENT Southern Company Services

PROJECT NAME Groundwater SRV-AP1

PROJECT NUMBER GW6581C

PROJECT LOCATION Euharlee, GA

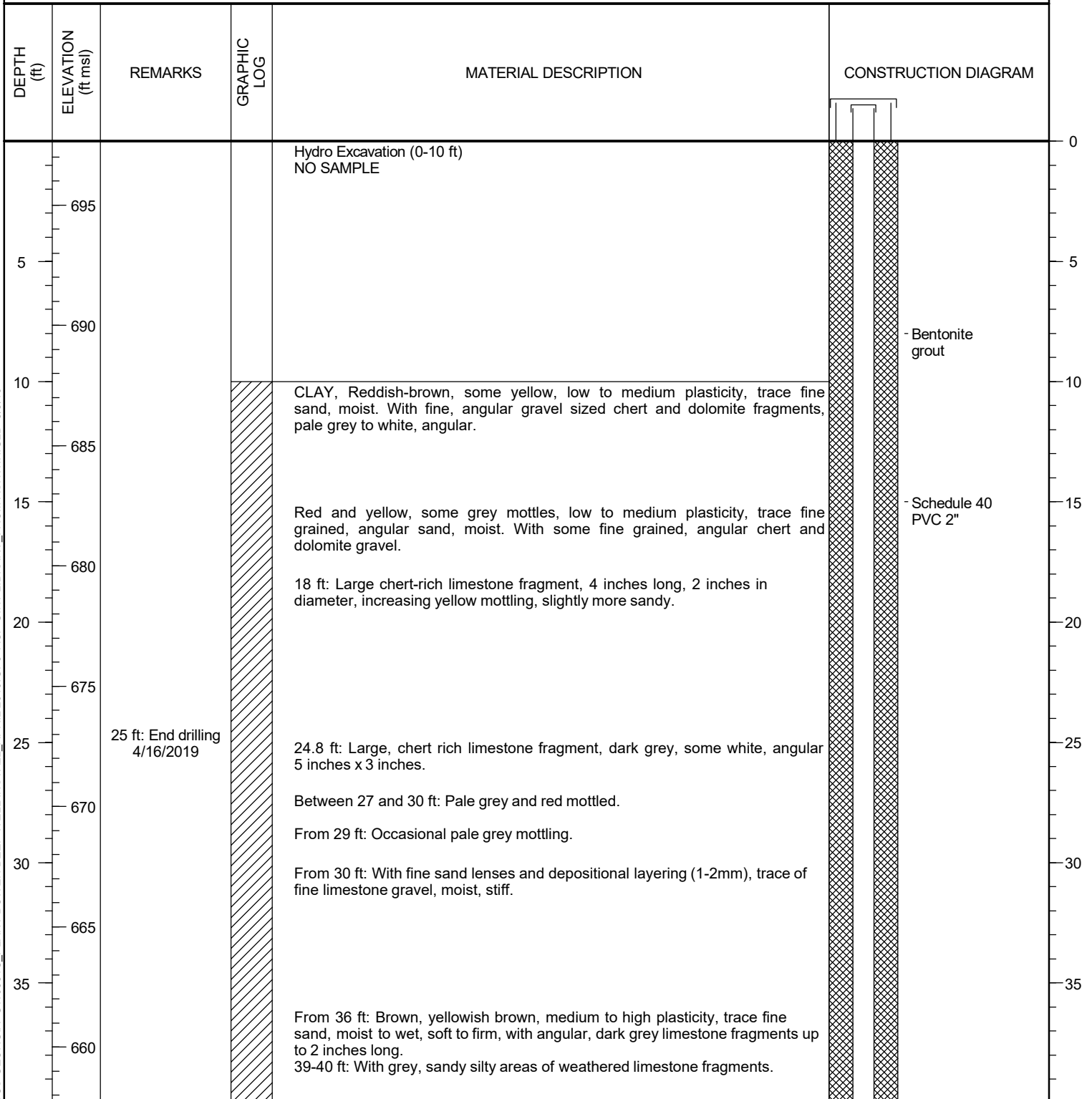
DEPTH (ft)	ELEVATION (ft msl)	REMARKS	GRAPHIC LOG	MATERIAL DESCRIPTION	CONSTRUCTION DIAGRAM
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90	605	95 to 110 ft: No voids reported.		LIMESTONE, Dark grey, some black, massive, fine grained, minor white calcareous veins, recovered as subrounded gravel sized core fragments and cobbles. Recovered with pale grey, silty coating. <i>(continued)</i>	
95	600			- Bentonite 3/8" chips	
100	595			- 20/40 Silica Sand	
105	590			- 0.010 slot size 2" Pre Pack, U-Pack Screen	
110	585				

Bottom of borehole at 110.0 feet.

SCS GEORGIA GW6581C_PLANT BOWEN DEEP WELL INSTALL_APRIL 2019.GPJ ACP GINT LIBRARY_FROM ASHWIN.GLB 5/8/19

CLIENT Southern Company Services PROJECT NAME Groundwater SRV-AP1
 PROJECT NUMBER GW6581C PROJECT LOCATION Euharlee, GA
 DATE STARTED 4/16/19 COMPLETED 4/18/19 NORTHING 1499803.595 ft EASTING 2066430.571 ft
 DRILLER Cascade Drilling GROUND ELEVATION 697.662 ft BORING DIAMETER 6 in
 DRILLING METHOD Sonic TOP OF CASING ELEVATION 700.47 ft
 SAMPLING METHOD 4" core 6" override GEOPHYSICAL CONTRACTOR ---
 RIG TYPE Terrasonic 11-38212 LOGGED BY C. Hug CHECKED BY J. Ivanowski



SCS GEORGIA GW6581C_PLANT BOWEN DEEP WELL INSTALL_ APRIL 2019.GPJ ACP GINT LIBRARY FROM ASHWIN.GLB 5/8/19

CLIENT Southern Company Services

PROJECT NAME Groundwater SRV-AP1

PROJECT NUMBER GW6581C

PROJECT LOCATION Euharlee, GA

DEPTH (ft)	ELEVATION (ft msl)	REMARKS	GRAPHIC LOG	MATERIAL DESCRIPTION	CONSTRUCTION DIAGRAM
40				CLAY, Reddish-brown, some yellow, low to medium plasticity, trace fine sand, moist. With fine, angular gravel sized chert and dolomite fragments, pale grey to white, angular. <i>(continued)</i>	
45				43 ft: Dark grey, angular limestone fragments up to 5 inches long.	
45				45 ft: Angular limestone fragment, 5 inches x 3 inches.	
50				48-49 ft: With fine to coarse grained gravel sized limestone fragments, angular, grey, up to 5 inches in diameter.	
50				51 ft: Large, angular chert fragment, white to pale grey, 5 inches in diameter.	
55				53 ft: Angular limestone fragment, 4 inches long.	
55				56 ft: With dark brown SANDY CLAY, sand is fine to coarse grained, subangular, quartz. From 57 ft: CLAY with SAND, Brown red and yellow, medium to high plasticity, sand is fine to medium grained, subangular, trace of fine limestone gravel.	Bentonite grout
60				63 to 64 ft: Lens of fine to coarse gravel sized limestone fragments in sandy, silty clay matrix.	
65		67 to 77 ft: Driller reports general 'easy' drilling, with softer and harder patches.		LIMESTONE, Dark grey, grey, white, massive, with calcareous veins, minor yellowish-brown iron oxide staining, drilled as angular fragments of rock and disc shaped core fragments, with some chert rich fragments.	
70				Potential VOID (74 to 76 ft)	
75		Driller reports rods dropping between 74 and 76 ft, no resistance.		LIMESTONE, Dark grey, grey, white, massive, with calcareous veins, minor yellowish-brown iron oxide staining, drilled as angular fragments of rock and disc shaped core fragments, with some chert rich fragments.	
80		Softer and harder drilling, but no rod dropping.			Bentonite uncoated 3/8" chips
85					

SCS GEORGIA GW6581C PLANT BOWEN DEEP WELL INSTALL APRIL 2019.GPJ ACP GINT LIBRARY FROM ASHWIN.GLB 5/8/19

CLIENT Southern Company Services

PROJECT NAME Groundwater SRV-AP1

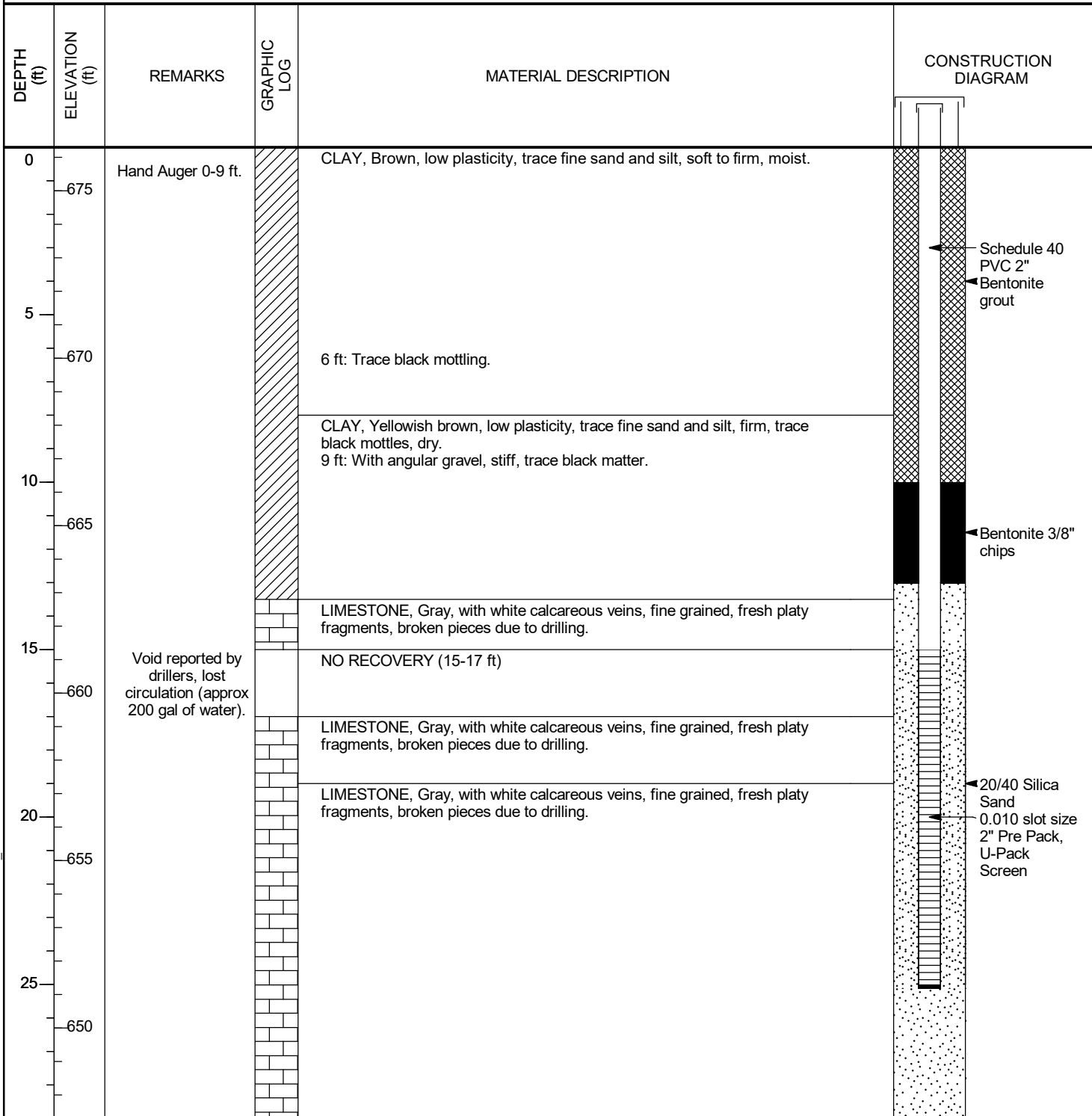
PROJECT NUMBER GW6581C

PROJECT LOCATION Euharlee, GA

DEPTH (ft)	ELEVATION (ft msl)	REMARKS	GRAPHIC LOG	MATERIAL DESCRIPTION	CONSTRUCTION DIAGRAM
610				LIMESTONE, Dark grey, grey, white, massive, with calcareous veins, minor yellowish-brown iron oxide staining, drilled as angular fragments of rock and disc shaped core fragments, with some chert rich fragments. (continued)	
90					
605					
95					
600		From 97': Harder drilling, slow progress.		From 97': Larger, competent pieces of limestone up to 4 inches in length, grey, white, massive, fresh.	
100					
595					
105					
590		107 to 117 ft: Fast drilling throughout run, no voids reported.		From 105 to 107 ft: Drilled as three competent pieces of intact limestone core up to 12 inches long, fresh, no fractures to slightly fractured.	
110				Between 109 and 113 ft: Some brown and yellow iron oxide staining along fracture planes. Rock is generally recovered as grey, angular fragments of rock up to 4 inches long, with white calcareous veins and discs of core up to 1 inch length. No staining between 115 and 117 ft.	Bentonite 3/8" chips
585					
115					0.010 slot size 2" Pre Pack, U-Pack Screen
580					20/40 Silica Sand
120					
575					
125					
570				Bottom of borehole at 127.0 feet.	
130					

SCS GEORGIA GW6581C_PLANT BOWEN DEEP WELL INSTALL_APRIL 2019.GPJ ACP GINT LIBRARY FROM ASHWIN.GLB 5/8/19

CLIENT <u>Southern Company Services</u>	PROJECT NAME <u>Groundwater SRV-AP1</u>
PROJECT NUMBER <u>GW6581C</u>	PROJECT LOCATION <u>Euharlee, GA</u>
DATE STARTED <u>12/5/19</u> COMPLETED <u>12/6/19</u>	NORTHING <u>1501240.843 ft</u> EASTING <u>2064095.033 ft</u>
DRILLER <u>Cascade Drilling</u>	GROUND ELEVATION <u>676.3 ft</u> BORING DIAMETER <u>6 in</u>
DRILLING METHOD <u>Sonic</u>	TOP OF CASING ELEVATION <u>679.28 ft</u>
SAMPLING METHOD <u>4" core 6" override</u>	GEOPHYSICAL CONTRACTOR <u>---</u>
RIG TYPE <u>1051181 Compact Crawler</u>	LOGGED BY <u>N.Tilahun</u> CHECKED BY <u>J. Ivanowski</u>



Bottom of borehole at 29.0 feet.

CLIENT <u>Southern Company Services</u>	PROJECT NAME <u>Groundwater SRV-AP1</u>
PROJECT NUMBER <u>GW6581C</u>	PROJECT LOCATION <u>Euharlee, GA</u>
DATE STARTED <u>12/3/19</u> COMPLETED <u>12/3/19</u>	NORTHING <u>1500589.949 ft</u> EASTING <u>2064315.825 ft</u>
DRILLER <u>Cascade Drilling</u>	GROUND ELEVATION <u>686.5 ft</u> BORING DIAMETER <u>6 in</u>
DRILLING METHOD <u>Sonic</u>	TOP OF CASING ELEVATION <u>689.64 ft</u>
SAMPLING METHOD <u>4" core 6" override</u>	GEOPHYSICAL CONTRACTOR <u>---</u>
RIG TYPE <u>1051181 Compact Crawler</u>	LOGGED BY <u>N.Tilahun</u> CHECKED BY <u>J. Ivanowski</u>

DEPTH (ft)	ELEVATION (ft)	REMARKS	GRAPHIC LOG	MATERIAL DESCRIPTION	CONSTRUCTION DIAGRAM
0		Hand Auger 0-10 ft.		CLAY, Reddish brown, medium plasticity, firm to stiff, trace silt and fine sand, moist.	
	685				
5				4 ft: Trace yellow mottling.	
	680				
10				8-9 ft: Yellowish brown.	
	675			CLAY, Yellowish brown to reddish brown, low to medium plasticity, trace silt, sand and angular gravel, firm to stiff, trace black and white mottles, moist.	
15					
	670				Schedule 40 PVC 2"
20				CLAY, Yellowish brown to reddish brown, black mottles, high plasticity, trace silt and fine sand, few angular to subangular rock fragments, stiff, moist to wet.	
	665				Bentonite grout
25					
	660			GRAVELLY CLAY, Brown, medium to high plasticity, stiff, some limestone and dolomite rock fragments, wet.	

SCS MONITORING WELLS BGWC39 AND BGWC40 DECEMBER 2019.GPJ ACP GINT LIBRARY CH.GLB 12/23/19

(Continued Next Page)

CLIENT Southern Company Services

PROJECT NAME Groundwater SRV-AP1

PROJECT NUMBER GW6581C

PROJECT LOCATION Euharlee, GA

DEPTH (ft)	ELEVATION (ft)	REMARKS	GRAPHIC LOG	MATERIAL DESCRIPTION	CONSTRUCTION DIAGRAM
30	-655	31-33 ft: Very soft drilling - potential void filling.		GRAVELLY CLAY, Brown, medium to high plasticity, stiff, some limestone and dolomite rock fragments, wet. (continued)	
				PARTIALLY WEATHERED ROCK, Limestone and dolomite, dry.	
35	-650	35-38 ft: Very soft drilling - potential void filling.		GRAVELLY CLAY, Brown, medium to high plasticity, stiff, some limestone and dolomite rock fragments, wet.	← Bentonite grout
40	-645	39-45 ft: Very soft drilling - potential void filling.		GRAVELLY CLAY, Brown, high plasticity, stiff, few limestone and dolomite rock fragments, firm to stiff, wet.	
45	-640			LIMESTONE, Light gray, white calcite veins, few iron staining, hard, moderately bedded (breaking along bedding), broken pieces due to drilling.	← Bentonite 3/8" chips
50	-635				
55	-630	57-60 ft: Soft drilling, lost circulation (approx 100 gal of water) - potential void.			← 20/40 Silica Sand ← 0.010 slot size 2" Pre Pack, U-Pack Screen
60					

Bottom of borehole at 60.0 feet.

SCS MONITORING WELLS BGWC39 AND BGWC40 DECEMBER 2019.GPJ ACP GINT LIBRARY CH.GLB 12/23/19

CLIENT <u>Southern Company Services</u>	PROJECT NAME <u>Groundwater SRV-AP1</u>
PROJECT NUMBER <u>GW6581C</u>	PROJECT LOCATION <u>Euharlee, GA</u>
DATE STARTED <u>12/3/19</u> COMPLETED <u>12/4/19</u>	NORTHING <u>1499886.91 ft</u> EASTING <u>2063961.76 ft</u>
DRILLER <u>Cascade Drilling</u>	GROUND ELEVATION <u>697.4 ft</u> BORING DIAMETER <u>6 in</u>
DRILLING METHOD <u>Sonic</u>	TOP OF CASING ELEVATION <u>700.37 ft</u>
SAMPLING METHOD <u>4" core 6" override</u>	GEOPHYSICAL CONTRACTOR <u>---</u>
RIG TYPE <u>1051181 Compact Crawler</u>	LOGGED BY <u>N.Tilahun</u> CHECKED BY <u>J. Ivanowski</u>

SCS MONITORING WELLS BGWC39 AND BGWC40 DECEMBER 2019.GPJ ACP GINT LIBRARY CH.GLB 12/23/19

DEPTH (ft)	ELEVATION (ft)	REMARKS	GRAPHIC LOG	MATERIAL DESCRIPTION	CONSTRUCTION DIAGRAM
0		Hand Auger 0-10 ft.		CLAY, Brown, medium plasticity, trace fine sand and silt, firm to stiff, moist.	
	695				
5				6 ft: Reddish brown, some yellow mottling.	
	690			8 to 9 ft: Reddish brown, some white mottling.	
10				CLAY, Reddish brown to yellow brown, low to medium plasticity, trace silt and fine sand, some chert fragments between 13 and 15 ft, firm to stiff, moist.	
	685				
15					
	680				Schedule 40 PVC 2"
20				CLAY, Yellowish brown to red brown, low to medium plasticity, firm, few angular to subrounded gravel, trace silt and fine sand, few chert fragments.	
	675				Bentonite grout
25					
	670				



























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CLIENT Southern Company Services

PROJECT NAME Groundwater SRV-AP1

PROJECT NUMBER GW6581C

PROJECT LOCATION Euharlee, GA

DEPTH (ft)	ELEVATION (ft)	REMARKS	GRAPHIC LOG	MATERIAL DESCRIPTION	CONSTRUCTION DIAGRAM
30				CLAY, Yellowish brown to red brown, low to medium plasticity, firm, few angular to subrounded gravel, trace silt and fine sand, few chert fragments. (continued)	
	665			CLAY, Yellowish brown, few black mottles, medium to high plasticity, trace silt and fine sand, trace gravel, soft to firm, wet.	
35					
	660	Soft drilling, driller lost approx. 100 gal of water.			
40				NO RECOVERY (39 to 42 ft)	
	655			LIMESTONE/DOLOMITE, Gray, some white calcite veins, fine grained, hard, fresh to slightly weathered, massive, broken into pieces due to drilling.	
45		Void reported by driller.			
	650			NO RECOVERY (45 to 49 ft)	
50		Hard drilling from 49 ft. Lost approx 200 gal of water.		LIMESTONE/DOLOMITE, Gray, some white calcite veins, fine grained, hard, fresh to slightly weathered, massive, broken into pieces due to drilling.	
	645				
55					
					
					
					

Bottom of borehole at 57.0 feet.

SCS MONITORING WELLS BGWC39 AND BGWC40 DECEMBER 2019.GPJ ACP GINT LIBRARY CH.GLB 12/23/19

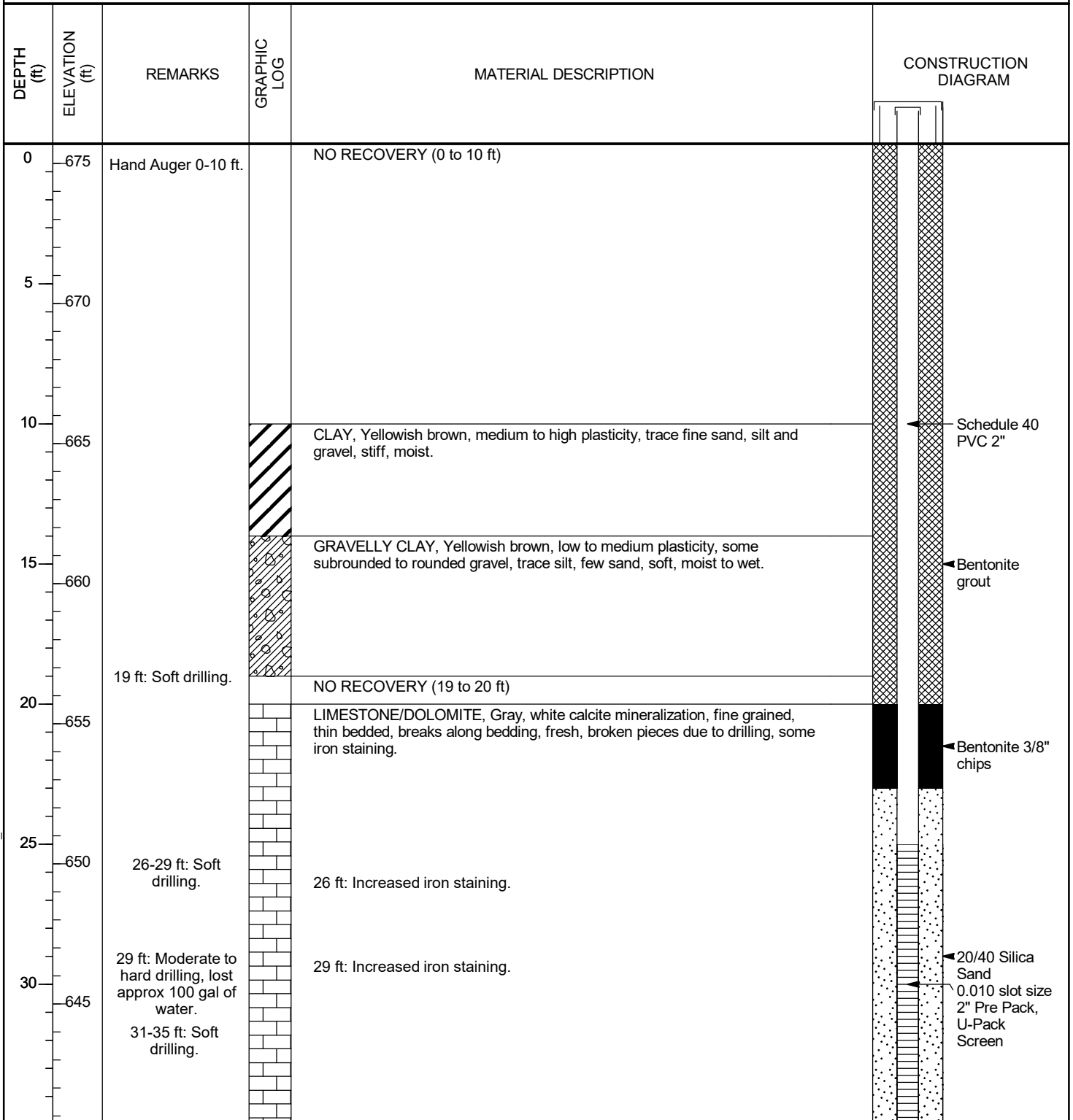
← Bentonite grout

← Bentonite 3/8" chips

← 20/40 Silica Sand

← 0.010 slot size 2" Pre Pack, U-Pack Screen

CLIENT <u>Southern Company Services</u>	PROJECT NAME <u>Groundwater SRV-AP1</u>
PROJECT NUMBER <u>GW6581C</u>	PROJECT LOCATION <u>Euharlee, GA</u>
DATE STARTED <u>12/8/19</u> COMPLETED <u>12/8/19</u>	NORTHING <u>1500378.8 ft</u> EASTING <u>2063241.95 ft</u>
DRILLER <u>Cascade Drilling</u>	GROUND ELEVATION <u>675.7 ft</u> BORING DIAMETER <u>6 in</u>
DRILLING METHOD <u>Sonic</u>	TOP OF CASING ELEVATION <u>678.55 ft</u>
SAMPLING METHOD <u>4" core 6" override</u>	GEOPHYSICAL CONTRACTOR <u>---</u>
RIG TYPE <u>1051181 Compact Crawler</u>	LOGGED BY <u>N.Tilahun</u> CHECKED BY <u>J. Ivanowski</u>



SCS MONITORING WELLS BGWC39 AND BGWC40 DECEMBER 2019.GPJ ACP GINT LIBRARY CH.GLB 12/23/19

Bottom of borehole at 35.0 feet.

APPENDIX B

Well Inspection Forms

Monitoring Well Inspection

Site Name: Plant Bowen
 Site Location Ash Pond

Inspector's Name: Robert Mull/Audrey Crafton
 Date of Inspection: 3/5/2019

Well I.D.	Locks	Cap	Bollards	Concrete Pad	Protective Casing	Weep Hole Height (in)	Survey Mark	Pea Gravel	Additional Notes
BGWA-1	Yes	Yes	Yes	Good Condition	Good Condition	2	Yes	Good	
BGWA-2	Yes	Yes	Yes	Good Condition	Good Condition	2	Yes	Good	
BGWA-3	Yes	Yes	Yes	Good Condition	Good Condition	1.5	Yes	Good	
BGWA-4	Yes	Yes	Yes	Good Condition	Good Condition	1	Yes	Good	
BGWA-5	Yes	Yes	Yes	Good Condition	Good Condition	1.5	Yes	Good	
BGWA-6	Yes	Yes	Yes	Good Condition	Good Condition	1	Yes	Good	
BGWA-7	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-8	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-9	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-10	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-11	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-12	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-13	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-14	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-15	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-16	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-17	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-18	Yes	Yes	Yes	Good Condition	Good Condition		Yes	Good	
BGWA-19	Yes	Yes	Yes	Good Condition	Good Condition	2	Yes	Good	
BGWA-20	Yes	Yes	Yes	Good Condition	Good Condition	1	Yes	Good	
BGWA-21	Yes	Yes	Yes	Good Condition	Good Condition	1.5	Yes	Good	
BGWA-22	Yes	Yes	Yes	Good Condition	Good Condition	0.5	Yes	Good	
BGWA-23	Yes	Yes	Yes	Good Condition	Good Condition	1	Yes	Good	
BGWA-24	Yes	Yes	Yes	Good Condition	Good Condition	1.5	Yes	Good	
BGWA-25	Yes	Yes	Yes	Good Condition	Good Condition	1.75	Yes	Good	
BGWA-26	Yes	Yes	Yes	Good Condition	Good Condition	3	Yes	Needs more	
BGWA-27	Yes	Yes	Yes	Good Condition	Good Condition	3	Yes	Good	
BGWA-28	Yes	Yes	Yes	Good Condition	Good Condition	3	Yes	Good	
BGWA-29	Yes	Yes	Yes	Good Condition	Good Condition	3.5	Yes	Good	
BGWA-30	Yes	Yes	Yes	Good Condition	Good Condition	3	Yes	Good	
BGWA-31	Yes	Yes	Yes	Good Condition	Good Condition	3.5	Yes	Good	
BGWA-32	Yes	Yes	Yes	Good Condition	Good Condition	2	Yes	Good	
BGWA-33	Yes	Yes	Yes	Good Condition	Good Condition	3	Yes	Good	
BGWA-34D	Yes	Yes	Yes	Good Condition	Good Condition	2	Yes	Good	
BGWA-35D	Yes	Yes	Yes	Good Condition	Good Condition	2.5	Yes	Good	
BGWA-36D	Yes	Yes	Yes	Good Condition	Good Condition	4	Yes	Good	
PZ-1	Yes	Yes	Yes	Good Condition	Good Condition	2	Yes	Good	
PZ-2	Yes	Yes	Yes	Good Condition	Good Condition	none	Yes	Good	
PZ-3	Yes	Yes	Yes	Good Condition	Good Condition	4.5	Yes	Good	overgrown w/ vegetation
PZ-4	Yes	Yes	Yes	Good Condition	Good Condition	1.5	Yes	Good	

Water Level Measurements

Site Name: Plant Bowen
 Site Location: Ash Pond

Sample Tech: KS
 Sample Date: 4/1/2019

Well #	Water Level (ft)	Well Depth (ft)	Inspection Notes
BGWA-1	37.15	59.02	Good
BGWA-2	43.46	89.02	Good
BGWA-3	42.74	89.28	Good
BGWA-4	47.50	79.01	Good
BGWA-5	39.21	69.10	Good
BGWA-6	32.72	63.46	Good
BGWC-7	41.72	90.20	Good
BGWC-8	43.31	80.01	Good
BGWC-9	26.24	63.94	Good
BGWC-10	23.86	62.36	Good
BGWC-11	20.73	77.05	Good
BGWC-12	35.06	78.06	Good
BGWC-13	65.40	73.53	Good
BGWC-14	80.81	88.08	Good
BGWC-15	60.05	73.30	Good
BGWC-16	15.42	48.99	Good
BGWC-17	14.37	68.10	Good
BGWC-18	13.32	37.82	Good
BGWC-19	14.98	54.70	Good
BGWC-20	14.64	49.74	Good
BGWC-21	16.73	53.35	Good
BGWC-22	24.00	43.00	Good
BGWC-23	29.78	51.12	Good
BGWC-24	12.97	66.09	Good
BGWC-25	15.53	58.37	Good
BGWA-26	51.01	76.20	Good
BGWA-27	57.32	94.18	Good
BGWA-28	58.95	87.50	Good
BGWA-29	37.01	100.10	Pad and Well overgrown w/ Vegetation
BGWC-30	17.58	61.03	Good
BGWC-31	14.24	50.12	Good
BGWC-32	33.93	51.15	Good
BGWA-33	60.95	81.36	Good
BGWC-34D	14.84	79.93	Good
BGWC-35D	25.20	81.30	Good
BGWC-36D	17.60	96.68	Good
PZ-1	28.68	58.24	Good
PZ-2	13.15	30.20	Good
PZ-3	56.74	60.21	Pad and Well overgrown w/ Vegetation
PZ-4	59.15	60.24	Good

*BTP - Below the Top of the Pump

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA - 1
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA-2
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID ~~66403~~ BGWA-3
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA-4
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA - 5
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a <u>high traffic area</u> and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA-6
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a <u>high traffic area</u> and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-#7
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Remove one of the survey marks off top of inner casing (black sharpie)

Signature and Seal of PE/PG responsible for inspection *Fixed on 6/5/19

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-8
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
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)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	✓	_____	_____
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)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	_____
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?				
		_____	_____	_____

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-9
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Has 2 marks</u>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:
Remove one of the survey marks on top of inner casing

Signature and Seal of PE/PG responsible for inspection *Fixed on 6/5/19

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC - 10
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>X - Has 2</u>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Remove extra survey mark

Signature and Seal of PE/PG responsible for inspection

* Fixed on 6/5/19

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-11
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Remove one of the survey marks

* Fixed on 6/5/19

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-12
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
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)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	✓	_____	_____
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)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	_____
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?				
		_____	_____	_____

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-13
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC - 14
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a <u>high traffic area</u> and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Has ballards + reflective tape

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC - 15
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-16
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Remove one of the survey marks

*Fixed on 6/5/19

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-17
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>I think it's covered</u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>by new sign</u>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>b/c it used to have one</u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>has 2 marks</u>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Add new weep hole so it's visible, not behind sign. Remove one of the survey marks

* Fixed on 6/5/19

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-18
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Has multiple</u>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Remove extra survey marks

* Fixed on 6/5/19

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-19
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-20
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>X - has multiple</u>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Remove extra survey mark

Signature and Seal of PE/PG responsible for inspection

*Fixed on 6/5/19

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-21
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-22
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
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)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	_____	X - Has multiple	_____
e	Is the depth of the well consistent with the original well log?	✓	_____	_____
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)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	_____
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?	_____	_____	_____

7 Corrective actions as needed, by date:
Remove one of the survey marks so there's only one

Signature and Seal of PE/PG responsible for inspection *Fixed on 6/5/19

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-23
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
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)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	✓	_____	_____
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)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	_____
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?	_____	_____	_____

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC - 24
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-25
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-26
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA - 27
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

But grass needs cut back

7 Corrective actions as needed, by date:
Cut back grass around well

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA-28
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA - 29
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	_____	X	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
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)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	_____
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)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	_____
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?				
		_____	_____	_____

7 Corrective actions as needed, by date:
Cut back tall, thick vegetation around well & create clear pathway up to the well.

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-30
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Think it was part of the casing that deteriorated

7 Corrective actions as needed, by date:

Protective metal casing is deteriorating/coroding. Add weep hole, survey mark + vent hole

*Added survey mark + vent hole on 6/5/19

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC - 31
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Well is accessible, but path to it should be mowed down (very tall grass - waist high)

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-32
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWA - ~~32~~ 33
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-34D
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC - 35D
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-36D
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-37D
 Date 6/4/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID BGWC-38D
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7 Corrective actions as needed, by date:				

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID PZ-1
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well properly identified with the correct well ID?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c	Is the well in a high traffic area and does the well require protection from traffic?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of degradation or deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the casing have a functioning weep hole?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e	Is the well locked and is the lock in good condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the well pad sloped away from the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well pad in complete contact with the protective casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the pad surface clean (not covered with sediment or debris)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Is the well properly vented for equilibration of air pressure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d	Is the survey point clearly marked on the inner casing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e	Is the depth of the well consistent with the original well log?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c	Does the well require redevelopment (low flow, turbid)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7 Corrective actions as needed, by date:
Needs pea gravel (none was ever added, so needs a lot), + this will help fix the casing stability. Add label to outside casing.

Signature and Seal of PE/PG responsible for inspection * Fixed on 6/5/19

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID PZ-2
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	_____	✓ → thick vegetation	_____
b	Is the well properly identified with the correct well ID?	_____	✓ → No Label at all	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
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)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	_____	X - vegetation	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	_____
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)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	_____
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?				
		_____	_____	_____

7 Corrective actions as needed, by date:

Clear vegetation around well to make it more visible & accessible. I added a well ID w/ sharpie for now

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID PZ-3
 Date 6/14/19

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	_____	<u>X</u>	_____
b Is the well properly identified with the correct well ID?	<u>✓</u>	_____	_____
c Is the well in a high traffic area and does the well require protection from traffic?	_____	<u>✓</u>	_____
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>✓</u>	_____	_____
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>✓</u>	_____	_____
b Is the casing free of degradation or deterioration?	<u>✓</u>	_____	_____
c Does the casing have a functioning weep hole?	<u>✓</u>	_____	_____
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>✓</u>	_____	_____
e Is the well locked and is the lock in good condition?	<u>✓</u>	_____	_____
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	_____	_____	<u>X</u>
b Is the well pad sloped away from the protective casing?	<u>✓</u>	_____	_____
c Is the well pad in complete contact with the protective casing?	<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>X</u>
e Is the pad surface clean (not covered with sediment or debris)?	_____	<u>X</u>	_____
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>✓</u>	_____	_____
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>✓</u>	_____	_____
c Is the well properly vented for equilibration of air pressure?	<u>✓</u>	_____	_____
d Is the survey point clearly marked on the inner casing?	<u>✓</u>	_____	_____
e Is the depth of the well consistent with the original well log?	_____	_____	_____
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>✓</u>	_____	_____
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	_____	_____	_____
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	_____
c Does the well require redevelopment (low flow, turbid)?	_____	_____	_____
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?			
	_____	_____	_____

can't tell b/c of thick vegetation



7 Corrective actions as needed, by date:
Clear vegetation around well & on well pad. Make a clear path up to the well

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Bowen
 Permit Number _____
 Well ID PZ-4
 Date 6/4/19

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	✓	_____	_____
b	Is the well properly identified with the correct well ID?	✓	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	_____	✓	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓	_____	_____
b	Is the casing free of degradation or deterioration?	✓	_____	_____
c	Does the casing have a functioning weep hole?	✓	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓	_____	_____
e	Is the well locked and is the lock in good condition?	✓	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	✓	_____	_____
b	Is the well pad sloped away from the protective casing?	✓	_____	_____
c	Is the well pad in complete contact with the protective casing?	✓	_____	_____
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)	✓	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	✓	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	✓	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓	_____	_____
c	Is the well properly vented for equilibration of air pressure?	✓	_____	_____
d	Is the survey point clearly marked on the inner casing?	✓	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	_____
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)	✓	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	_____	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	_____	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	_____	_____
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?	_____	_____	_____

7 Corrective actions as needed, by date:

Thick Vegetation encroaching around well

Signature and Seal of PE/PG responsible for inspection

Monitoring Well Inspection

Site Name: Plant Bowen
 Site Location: Ash Pond

Inspector's Name: Audrey Crafton & Veronica Fay
 Date of Inspection: 9/19/2019

Well I.D.	DTW	Locks	Cap	Bollards	Concrete Pad	Protective Casing	Survey Mark	Pea Gravel	Additional Notes
BGWA-2	62.27	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWA-29	53.45	Yes	Yes	Yes	Good Condition	Yes	Yes	Ok	Small dents in pad in front of stick up, could use a little pea gravel, vegetation encroaching a little
BGWC-7	47.15	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-8	48.45	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-9	32.15	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-10	26.56	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-12	40.35	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-14	73.22	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-16	17.61	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-17	16.41	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-18	15.16	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-19	16.74	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-20	15.78	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-21	23.16	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-22	27.34	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-23	31.38	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-24	18.22	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Slight erosion underneath pad
BGWC-25	18.86	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	

Monitoring Well Inspection

Site Name: Plant Bowen
 Site Location: Ash Pond

Inspector's Name: Audrey Crafton & Veronica Fay
 Date of Inspection: 9/19/2019

Well I.D.	DTW	Locks	Cap	Bollards	Concrete Pad	Protective Casing	Survey Mark	Pea Gravel	Additional Notes
BGWC-30	33.31	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Some small holes at back of pad. Ground slightly pulling away from pad at back
BGWA-6	47.91	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Vegetation encroaching on pad
BGWA-33	76.22	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Slight discoloration on stick up at base
BGWC-31	15.36	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-32	35.03	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-34D	15.98	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-35D	29.03	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Small anthill starting to cover concrete pad
BGWC-36D	33.26	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Discoloration on back of stick up
BGWC-37D	29.34	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-38D	32.58	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
MW-108	46.49	No	No	No	Ok	Yes	No	No	No weep hole, no lock, no high point marked, small dents in concrete pad, telemetry well
SWP-1A	23.92	No	No	No	Cracked	Yes	No	No	No weep hole, no lock, pad overgrown, telemetry well
PZ1-R	48.12	No	Yes	N	Good Condition	NA	No	NA	Flush Mount Well with no screws for lid
PZ3-R	44.53	No	No	NA	Cracked	Yes	No	No	No lock, no weep hole, pad overgrown, telemetry well
BGWA-1	52.54	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Good Condition
BGWA-3	56.82	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Vegetation encroaching on pad
BGWA-4	61.42	Yes	Yes	Yes	Good Condition	Yes	Yes	Ok	Wasps in stick up, high spot no longer marked, could use a little pea gravel
BGWA-5	53.68	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	

Monitoring Well Inspection

Site Name: Plant Bowen
 Site Location: Ash Pond

Inspector's Name: Audrey Crafton & Veronica Fay
 Date of Inspection: 9/19/2019

Well I.D.	DTW	Locks	Cap	Bollards	Concrete Pad	Protective Casing	Survey Mark	Pea Gravel	Additional Notes
BGWC-11	26.56	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-13	67.26	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWC-15	67.24	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
BGWA-26	63.62	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Vegetation starting to encroach on pad
BGWA-27	70.18	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Vegetation encroaching on pad
BGWA-28	71.87	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Small holes in pad at back, ant hill encroaching pad from the left, vegetation encroaching on pad
PZ-1	34.1	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
PZ-2	14.35	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
PZ-3	59.94	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	Ant hill on right side of pad, vegetation encroaching on pad
PZ-4	59.46	Yes	Yes	Yes	Good Condition	Yes	Yes	Yes	
Recycle Water Staff	NA	NA	NA	NA	NA	NA	NA	NA	According to Randy Arp, gauge is broken/offline
General Service Pond	706.1	NA	NA	NA	NA	NA	NA	NA	Reading obtained from Randy Arp. Transducer did not have a face to read
Etowah River Stage	643	NA	NA	NA	NA	NA	NA	NA	Reading obtained from a replacement transducer. Original staff gauge invalid

APPENDIX C

Memorandum: Delineation of Naturally Occurring Arsenic



Prepared for

Georgia Power Company
241 Ralph McGill Blvd NE
Atlanta, Georgia 30308

**DEMONSTRATION OF
NATURALLY-OCCURRING ARSENIC
GEORGIA POWER COMPANY
PLANT BOWEN – ASH POND 1 (AP-1)**

Prepared by

Geosyntec 
consultants

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144

Project Number GW6581C

July 2019



DEMONSTRATION OF NATURALLY-OCCURRING ARSENIC

Plant Bowen
Ash Pond 1 (AP-1)

July 30, 2019

A handwritten signature in black ink that reads "Herwig Goldmund".

Herwig Goldmund, Ph.D.
Senior Scientist

A handwritten signature in black ink that reads "Whitney B. Law".

Whitney Law, P.E.
Project Manager

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Appendix A	Laboratory Analytical Report of Rock Cores
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LIST OF ACRONYMS

AP	ash pond
As	arsenic
B	boron
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
Cl	chloride
Co	cobalt
GPC	Georgia Power Company
GWPS	groundwater protection standard
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
Mo	molybdenum
PE	professional engineer
SSL	statistically significant level
SO ₄	sulfate
USEPA	United States Environmental Protection Agency

1. INTRODUCTION

1.1 Purpose

This document presents a demonstration for concentrations of arsenic (As) above the groundwater protection standard (GWPS) detected in delineation well BGWC-34D located at the Georgia Power Company (GPC) Plant Bowen (Site) Ash Pond 1 (AP-1). Based on review of available data, the As detected in BGWC-34D is not associated with a release from AP-1 but is from a naturally-occurring source within the rock formation. Arsenic has not been identified at a statistically significant level (SSL) for AP-1 groundwater pursuant to the United States Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule [40 Code of Federal Regulations (CFR) Part 257, Subpart D]. While the As concentrations found in BGWC-34D do not currently trigger a response pursuant to the CCR Rule, this demonstration has been prepared to explain the origin of observed groundwater concentrations of As in support of GPC's groundwater monitoring at AP-1.

1.2 Summary of Findings

Since January 2018, groundwater associated with AP-1 has been monitored under an assessment monitoring program pursuant to 40 CFR 257.95. Cobalt (Co) and molybdenum (Mo) were identified at SSL concentrations in select compliance wells at AP-1. Well BGWC-34D was initially installed to vertically delineate SSLs of Mo in well BGWC-20. While Mo has been vertically delineated to below the GWPS in BGWC-34D, As was detected above the GWPS of 0.010 milligram per liter (mg/L) in that well.

Based on review of available Site data, the As detected in well BGWC-34D is not associated with a release from AP-1 but is instead caused by a natural source of As in the site-specific rock formation. This report provides the following information supporting this conclusion:

- The As detection above the GWPS in well BGWC-34D is an isolated occurrence in a deeper flow zone that has a distinctly different geochemistry from the shallower groundwater; none of the shallow wells (or other deep wells) have As at a concentration above the GWPS; and

- Samples of rock cores contain As at concentrations higher than average crustal abundance; samples collected from the core for BGWC-34D at the screened depth interval of BGWC-34D have the highest As concentrations [i.e., up to 13 milligrams per kilogram (mg/kg)] relative to the other rock core samples collected from depth intervals coinciding with the screened intervals of various compliance and detection monitoring wells. Other solid samples had As detections between 0.8 mg/kg and 3.5 mg/kg. Elevated, naturally-occurring As within North Georgia has been well documented in the literature and is most likely associated with As-bearing minerals such as pyrite. Similarly, the occurrence of arsenic in well BGWC-34D is related to its natural occurrence and distribution in the subsurface geologic media.

1.3 Site Setting and Operational History

1.3.1 Site Description

Plant Bowen is a four-unit, coal-fired, electric-generating facility located nine miles southwest of Cartersville in Bartow County, Georgia. The plant is bordered by the Etowah River to the north and east, and Euharlee Creek to the northwest and west (**Figure 1**). Plant Bowen commenced operations in the 1970s.

Operation of AP-1 commenced in 1971 with receipt of sluiced CCR material from Plant Bowen. GPC is currently in the permitting process to close AP-1 by consolidating the excavated CCR material into a fully-contained engineered structure using advanced engineering methods. In preparation for AP-1 closure, the plant completed the conversion to dry ash handling in early 2019 and AP-1 no longer receives ash.

1.3.2 Site Geology and Hydrogeology

The Site is located in the Valley and Ridge Physiographic Province of northwest Georgia, which is characterized by Paleozoic sedimentary rocks that have been folded and faulted into the ridges and valleys that gave this region its name. The floor of the valley is underlain by shales, dolomites, and limestones of Cambrian and Ordovician age. Geologic mapping performed by Lawton et al. (1976) indicates that the Site is underlain by the Ordovician-Cambrian age Knox Dolomite and the Ordovician age Newala Limestone. Based on review of subsurface investigations at the Site, the bedrock is described as predominantly dolomite. The Site is underlain primarily by three lithologic

units: (i) fill material consisting of earthen embankments and CCR material, (ii) residuum, and (iii) competent dolomite/limestone bedrock.

The residuum at the Site is the result of in-place weathering of the underlying dolomite/limestone bedrock. The residuum consists mainly of mottled light brown to red to yellow, low to high plasticity, stiff to very stiff clay, silt, and silty clay. Most soils contain varying amounts of black chert nodules and chert gravel. The bedrock at the Site is described as light to dark gray, fine to medium-grained, thinly-bedded to massive, dense, and hard dolomite, limestone, and dolomitic limestone. Some evidence of weathering along fracture or bedding surfaces was observed, with some manganese or iron oxide staining. Abundant calcite veins and occasional zones of healed dolomite breccia were observed throughout the bedrock. Solution features in the underlying limestone/dolomite bedrock formed over geological timeframes along pre-existing discontinuities such as joints and bedding planes. At the Site, these solution features are typically filled with sediment from the in-place weathering of the bedrock or the downward migration of the overlying residuum, but they may also be fully or partially open, or water filled.

The uppermost aquifer at the Site is a regional groundwater aquifer that occurs in the residuum and fractured and solutioned bedrock. Groundwater flow in bedrock is under unconfined to semi-confined conditions from the mantle of overlying lower-permeability residuum and is controlled by secondary porosity along fractures and solution-enhanced features.

1.4 Groundwater Monitoring and Statistical Analysis

A groundwater monitoring system was installed at AP-1 in accordance with 40 CFR 257.91 and certified by a professional engineer (PE) on October 10, 2017. The certified compliance monitoring well network for AP-1 consists of a total of 19 monitoring wells: two upgradient wells and 17 downgradient wells. The locations of the wells for the compliance monitoring well network are shown on **Figure 2**.

GPC initiated an assessment monitoring program for groundwater at AP-1 in January 2018. Pursuant to 40 CFR 257.95, the compliance monitoring well network was sampled for Appendix IV parameters in March 2018, and again in June and October 2018 for Appendix III parameters and the Appendix IV parameters detected during the April event. Groundwater data collected during the June and October 2018 semiannual monitoring

events were statically analyzed in accordance with the PE-certified statistical method established for the Site. SSLs of Co were identified in well BGWC-22, with SSLs of Mo identified in wells BGWC-20, BGWC-22, BGWC-23, and BGWC-30. Additional details regarding groundwater monitoring and statistical analyses are provided in the *2018 Annual Groundwater and Corrective Action Monitoring Report* (Geosyntec, 2019a).

As a consequence of detecting the SSLs listed above, eight additional monitoring wells (BGWC-31, BGWC-32, BGWA-33, BGWC-34D, BGWC-35D, BGWC-36D, BGWC-37D, BGWC-38D) were installed between July 2018 and April 2019 to characterize flow conditions and assess the nature and extent of Co and Mo in groundwater downgradient of AP-1. Well BGWC-34D was installed to vertically delineate Mo detected at well BGWC-20. These eight delineation wells are also depicted on **Figure 2**. Well construction details for the compliance and delineation wells are provided in **Table 1**.

2. DEMONSTRATION OF NATURALLY-OCCURRING ARSENIC

Based on review of Site information, the As detected above the GWPS in well BGWC-34D is not associated with a release from AP-1 but is instead caused by a natural source of As in the site-specific rock formation. This report provides the following information supporting this conclusion.

2.1 Isolated Occurrence of Elevated Arsenic in BGWC-34D

The concentration of As detected in monitoring well BGWC-34D is an isolated occurrence across the monitoring well network at the Site. No other well, either shallow or deep, within the compliance and/or delineation network has reported an As concentration above the GWPS with the exception of well BGWC-24. A single isolated detection of As at 12.1 ug/L was reported in well BGWC-24 during the December 2016 baseline sampling event. However, As was reported in BGWC-24 at near trace concentrations below the GWPS prior to and following the December 2016 event. Well BGWC-34D was installed as a deep well to vertically delineate Mo at compliance well BGWC-20. It was located within 20 feet of and adjacent to BGWC-20.

The top of the screen of BGWC-34D was installed approximately 20 feet below the bottom of the screen of well BGWC-20 (**Table 1**). BGWC-34D has intercepted a flow zone in this area which exhibits a geochemistry that is different from the shallow well. This geochemical difference is demonstrated by molar ionic ratios summarized in **Table 2**. These ratios were calculated on a molar basis (mmol) for results from sampling events conducted in October 2018 and April 2019. The table summarizes results from the background wells (BGWA-2, BGWA-29) together with monitoring well pairs that have a shallow and deep well nested together [BGWC-20/BGWC-34D (highlighted yellow); BGWC-22/BGWC-35D; BGWC-30/BGWC-36D]. As can be seen, ionic ratios for the conservative ions boron (B), chloride (Cl) and sulfate (SO₄) as well as ion ratios involving As indicate that the geochemistry of samples from BGWC-34D is different from the geochemistry of the shallow well BGWC-20, while the other well pairs show a similar geochemistry between the shallow and the deep wells. This is especially evident when comparing the ion ratios involving As. Furthermore, the ion ratios from BGWC-34D are more similar to background conditions of BGWA-2 and BGWA-29 than to conditions in other wells. This indicates a background-like signature in BGWC-34D and a source of As that is not related to a release from AP-1.

2.2 Arsenic in Rock Cores

Samples of rock cores were collected from depth intervals that coincided with the screened intervals of various monitoring wells and submitted for laboratory analysis of As. **Table 3** summarizes the results together with corresponding groundwater concentrations from these wells, and **Appendix A** provides the laboratory analytical reports of the rock samples. Laboratory reports for the groundwater samples have been submitted under separate groundwater monitoring reports (Geosyntec, 2019a, 2019b).

The As concentrations in the two rock core samples from the screened interval of BGWC-34D had the highest concentrations of As of the nine locations sampled. The concentration of As at BGWC-34D of up to 13 mg/kg is significantly higher than all other sampled locations which had As detections between 0.8 mg/kg and 3.5 mg/kg. Arsenic concentration at BGWC-34D is also an order of magnitude higher than the average crustal abundance of 2 mg/kg (Cocker, 1996). These results indicate a natural source of As in the site-specific lithology with higher concentrations at this particular location. The higher rock core concentrations coincide with higher groundwater concentrations at BGWC-34D. While the specific source and/or form of this naturally-occurring As has not been determined, the presence of As-containing pyritic minerals has been documented in North Georgia.

For example, in a study conducted by the Georgia Geologic Survey (Cocker, 1996), 38 samples of rock, soil and saprolite from North Georgia were analyzed for As. Eighty percent of these samples contained As in excess of 100 mg/kg. While the sources of As were not further evaluated in that study, both agricultural sources as well as As-bearing pyrite minerals were suspected as likely sources for this elevated As. In a later study conducted by Schroeder (2010), elevated As concentrations in excess of 100 mg/kg were detected in saprolite and bedrock samples collected from the Brevard Zone of North Georgia. The study concluded that the As was naturally occurring in pyrite and arsenopyrite minerals associated with the hydrothermal fluid migration along the geologic fault zone.

Small grains of pyrite can also occur in limestones and dolomites, and/or other iron minerals could serve to “concentrate” As through sorption of naturally-occurring As from groundwater (Lazareva and Pichler, 2007). Iron staining in the rock cores indicate fluid flow along fractures and potential formation of iron-oxides/hydroxides that could host arsenic liberated from the pyritic minerals. Quantitative mineralogical data are not

available for this demonstration. Field evidence of pyrites in the rock matrix and iron hydroxides along fractures together with rock chemistry and groundwater ionic ratio data, strongly supports a natural occurrence of arsenic in the rock matrix and a natural occurrence of arsenic in groundwater in well BGWC-34D.

3. CONCLUSIONS

Monitoring well BGWC-34D was installed as a deep well to vertically delineate SSLs of Mo in compliance well BGWC-20. While this well vertically delineated Mo to below the respective GWPS, As was detected at a concentration in excess of the GWPS. This report documents that As at this location is derived from a natural source and is not the result of a release from AP-1. The following lines of evidence are presented:

- Isolated Occurrence and Geochemical Fingerprint:
 - Monitoring well BGWC-34D is the only well within the compliance and/or delineation monitoring well network across the Site, either shallow or deep, that exhibited an As concentration above the GWPS; geochemical fingerprinting using ion ratios indicates this well has a distinctly different geochemistry that is not consistent with a potential release of As from AP-1; in fact, the geochemistry is more similar to background conditions than to other compliance wells.
- Naturally-Occurring As in Rock Cores:
 - Rock samples from well location BGWC-34D show significantly higher arsenic concentrations than other rock samples at the Site. The occurrence of arsenic in the rock matrix at well location BGWC-34D, which is screened 30 to 40-ft deeper than the compliance well BGWC-20 lacking any arsenic detection in groundwater, strongly supports a natural occurrence of arsenic in well BGWC-34D. Natural occurrence of arsenic in regional rocks and groundwater are well-documented in the literature. Field evidence also demonstrates the potential mechanism of arsenic mobilization into groundwater.

4. REFERENCES

- Cocker M.D. (1996). Distribution of Selected Elements in Stream Sediments, Stream Hydrogeochemistry, and Geology of the Oconee River Basin, Georgia. Georgia Department of Natural Resources, Environmental Protection Division, Georgia Geologic Survey. Bulletin 121.
- Geosyntec Consultants (2019a). *2018 Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company, Plant Bowen, Ash Pond 1 (AP-1)*. January 2019
- Geosyntec Consultants (2019b). *First 2019 Semiannual Groundwater Monitoring and Corrective Action Report, Georgia Power Company, Plant Bowen, Ash Pond 1 (AP-1)*. July 2019
- Lawton, D.E., Marsalis, W.E, and others (1976). Geologic Map of Georgia: Georgia Geological Survey, scale = 1: 500,000, 1976.
- Lazareva O., Pichler, T. (2007). Naturally occurring arsenic in the Miocene Hawthorn Group, southwestern Florida: Potential implication for phosphate mining. *Applied Geochemistry* 22 (2007): 953-973.
- Schroeder P.A. (2010). Natural Occurrence of Elevated Arsenic and Selenium in Georgia Regolith: Implications for Their Relative Mobility in Piedmont Soils. *Southeastern Geology* 47(1): 15-26.
- USEPA, 2015. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. *40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81. April.

TABLES

Table 1
Monitoring Well Network Summary
Plant Bowen AP-1, Bartow County, Georgia

Well ID	Hydraulic Location	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation (ft AMSL)	Top of Screen Elevation (ft AMSL)	Bottom of Screen Elevation (ft AMSL)	Well Depth (ft BTOC) ⁽²⁾	Screen Interval Length
<i>Compliance Monitoring Wells</i>									
BGWA-2	Upgradient	10/29/2015	1499375.65	2068599.23	729.81	650.90	640.90	89.17	10
BGWA-29	Upgradient	8/7/2016	1498283.38	2066363.43	721.39	632.70	622.70	99.03	10
BGWC-7	Downgradient	10/1/2015	1504713.10	2066801.85	705.60	625.50	615.50	90.40	10
BGWC-8	Downgradient	11/18/2015	1504672.07	2066928.29	706.65	637.20	627.20	79.73	10
BGWC-9	Downgradient	11/13/2015	1504910.51	2066144.11	692.11	638.70	628.70	63.74	10
BGWC-10	Downgradient	10/7/2015	1505032.56	2066080.17	686.26	634.20	624.20	62.37	10
BGWC-12	Downgradient	10/21/2015	1505280.77	2065909.74	694.60	626.60	616.60	78.28	10
BGWC-14	Downgradient	11/10/2015	1505406.14	2065043.82	718.77	640.20	630.20	88.84	10
BGWC-16	Downgradient	11/12/2015	1504656.54	2064248.97	674.34	635.80	625.80	48.87	10
BGWC-17	Downgradient	10/22/2015	1504432.14	2064260.75	673.71	615.60	605.60	68.39	10
BGWC-18	Downgradient	10/13/2015	1504118.94	2064258.25	672.89	645.20	635.20	37.95	10
BGWC-19	Downgradient	10/12/2015	1503742.31	2064245.92	673.65	629.40	619.40	54.58	10
BGWC-20	Downgradient	10/9/2015	1503367.84	2064260.88	675.17	635.70	625.70	49.73	10
BGWC-21	Downgradient	3/2/2016	1501627.60	2064348.78	691.41	648.70	638.70	52.99	10
BGWC-22	Downgradient	10/8/2015	1501324.02	2064359.44	695.49	662.70	652.70	43.05	10
BGWC-23	Downgradient	10/15/2015	1501000.87	2064351.45	695.57	654.90	644.90	50.95	10
BGWC-24	Downgradient	10/27/2015	1500620.18	2065032.39	702.30	646.50	636.50	66.11	10
BGWC-25	Downgradient	3/3/2016	1502292.88	2064244.72	680.51	632.90	622.90	57.87	10
BGWC-30	Downgradient	1/4/2017	1499816.75	2066394.31	701.18	651.50	641.50	59.98	10
<i>Groundwater Level Monitoring Piezometer</i>									
BGWA-1	Downgradient	11/17/2015	1499099.83	2067205.55	720.95	672.30	662.30	58.97	10
BGWA-3	Downgradient	11/5/2015	1499419.93	2065186.44	724.33	645.70	635.70	88.97	10
BGWA-4	Downgradient	3/4/2016	1499484.76	2064697.83	728.70	660.40	650.40	78.61	10
BGWA-5	Downgradient	11/3/2015	1499435.96	2065421.03	720.94	662.10	652.10	69.10	10
BGWC-11	Downgradient	10/16/2015	1504998.34	2066092.86	686.69	619.80	609.80	77.18	10
BGWC-13	Downgradient	10/21/2015	1505436.84	2065250.98	717.54	654.40	644.40	73.45	10
BGWC-15	Downgradient	10/20/2015	1505279.56	2064731.57	717.98	655.10	645.10	73.21	10
BGWA-26	Downgradient	8/5/2016	1498696.48	2064190.20	728.66	663.40	653.40	75.56	10
BGWA-27	Downgradient	8/6/2016	1498718.03	2064387.85	735.29	651.90	641.90	93.74	10
BGWA-28	Downgradient	8/7/2016	1498748.11	2064577.77	737.49	661.20	651.20	86.58	10
PZ-1	Downgradient	6/23/2016	1505600.31	2066843.00	677.83	630.60	620.60	57.54	10
PZ-2	Downgradient	6/24/2016	1503857.59	2062937.95	668.32	649.30	639.30	29.33	10
PZ-3	Downgradient	6/22/2016	1505722.73	2066070.72	707.90	658.60	648.60	59.62	10
PZ-4	Downgradient	6/23/2016	1505788.40	2064315.36	718.71	669.20	659.20	59.78	10

Table 1
Monitoring Well Network Summary
Plant Bowen AP-1, Bartow County, Georgia

Well ID	Hydraulic Location	Installation Date	Northing ⁽¹⁾	Easting ⁽¹⁾	Top of Casing Elevation (ft AMSL)	Top of Screen Elevation (ft AMSL)	Bottom of Screen Elevation (ft AMSL)	Well Depth (ft BTOC) ⁽²⁾	Screen Interval Length
<i>Delineation or Characterization Monitoring Wells</i>									
BGWA-6	Downgradient	11/6/2015	1499260.85	2065797.45	716.98	664.50	654.50	62.74	10
BGWC-31	Downgradient	7/17/2018	1503498.68	2064022.78	670.99	631.59	621.59	49.70	10
BGWC-32	Downgradient	7/18/2018	1501251.18	2064184.43	699.52	658.60	648.60	51.22	10
BGWC-34D	Downgradient	7/13/2018	1503356.62	2064259.26	675.52	606.11	596.11	79.75	10
BGWC-35D	Downgradient	7/12/2018	1501312.30	2064359.89	695.93	625.32	615.32	80.94	10
BGWC-36D	Downgradient	7/2/2018	1499808.60	2066415.39	701.17	615.22	605.22	96.35	10
BGWC-37D	Downgradient	4/25/2019	1501293.46	2064363.99	696.12	595.56	585.56	112.56	10
BGWC-38D	Downgradient	4/18/2019	1499803.60	2066430.57	700.47	584.66	574.66	129.81	10
BGWA-33 ⁽³⁾	Downgradient	7/10/2018	1497973.36	2064876.50	743.34	672.80	662.80	80.84	10

Notes:

ft AMSL = feet above mean sea level

ft BTOC = feet below top of casing

(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet.

(2) Total well depth accounts for sump if data provided on well construction logs.

(3) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

Table 2
Summary of Groundwater Molar Ionic Ratios in Select Wells
Plant Bowen AP-1, Bartow County, Georgia

	Background Wells				Well Pair BGWC-20 / BGWC-34D				Well Pair BGWC-22 / BGWC-35D				Well Pair BGWC-30 / BGWC-36D				
	BGWA-2	BGWA-2	BGWA-29	BGWA-29	BGWC-20	BGWC-34D	BGWC-20	BGWC-34D	BGWC-22	BGWC-35D	BGWC-22	BGWC-35D	BGWC-30	BGWC-36D	BGWC-30	BGWC-36D	
	10/16/2018	4/1/2019	10/16/2018	4/1/2019	10/22/2018	10/19/2018	4/3/2019	4/4/2019	10/22/2018	10/22/2018	4/3/2019	4/4/2019	10/22/2018	10/17/2018	4/2/2019	4/2/2019	
Analytical Results and Molar Conversion	Boron (mg/L)	0.0066 J	0.0076 J*	0.0071 J	0.0048 J*	3.6	0.19	2.6 J*	0.15 J*	16.1	8.8	7.9 J	8.3 J	9.5	9.7	6.1 J	6.7 J
	<i>Boron (mmol)</i>	0.0006105	0.0007031	0.0006568	0.0004440	0.3330250	0.0175763	0.2405180	0.0138760	1.4893617	0.8140611	0.7308048	0.7678076	0.8788159	0.8973173	0.5642923	0.6197965
	Chloride (mg/L)	3.3	4.2 J	1.5	1.6 J	149	28	144	28.4 J	827	573	856	605 J	400	492	333	378
	<i>Chloride (mmol)</i>	0.0930889	0.1184767	0.0423131	0.0451340	4.2031030	0.7898449	4.0620592	0.8011283	23.3286319	16.1636107	24.1466855	17.0662906	11.2834979	13.8787024	9.3935120	10.6629055
	Sulfate (mg/L)	8.9	10.8 J	7.6	5.2	604	106	593	88.0	846	626.0	720	643	204	277	153	192
	<i>Sulfate (mmol)</i>	0.0926504	0.1124297	0.0791172	0.0541328	6.2877368	1.1034770	6.1732251	0.9160941	8.8069956	6.5167604	7.4953154	6.6937331	2.1236727	2.8836144	1.5927545	1.9987508
	Arsenic (mg/L)	0.00075 J	0.00049 J	<0.00057	0.00019 J*	<0.00057	0.013	0.00027 J	0.015	0.0016 J	0.0019 J	0.0021 J	0.0018 J	0.00064 J	0.00082 J	0.00024 J	0.00039 J
	<i>Arsenic (mmol)</i>	1.00134E-05	6.54206E-06	7.61015E-06	2.53672E-06	7.61015E-06	0.000173565	3.60481E-06	0.000200267	2.13618E-05	2.53672E-05	2.80374E-05	2.4032E-05	8.54473E-06	1.09479E-05	3.20427E-06	5.20694E-06
Molar Ionic Ratios	Boron/Chloride	0.0066	0.0059	0.0155	0.0098	0.0792	0.0223	0.0592	0.0173	0.0638	0.0504	0.0303	0.0450	0.0779	0.0647	0.0601	0.0581
	Boron/Sulfate	0.0066	0.0063	0.0083	0.0082	0.0530	0.0159	0.0390	0.0151	0.1691	0.1249	0.0975	0.1147	0.4138	0.3112	0.3543	0.3101
	Sulfate/Chloride	0.9953	0.9490	1.8698	1.1994	1.4960	1.3971	1.5197	1.1435	0.3775	0.4032	0.3104	0.3922	0.1882	0.2078	0.1696	0.1874
	Boron/Arsenic	61.0	107.5	86.3	175.0	43,761	101	66,721	69.3	69,721	32,091	26,065	31,949	102,849	81,962	176,106	119,033
	Chloride/Arsenic	9,296	18,110	5,560	17,792	552,302	4,551	1,126,845	4,000	1,092,072	637,187	861,232	710,147	1,320,522	1,267,701	2,931,559	2,047,825
	Sulfate/Arsenic	9,253	17,186	10,396	21,340	826,231	6,358	1,712,498	4,574	412,277	256,898	267,333	278,534	248,536	263,394	497,072	383,863

Notes:
 < = Parameter was not detected above the indicated method detection limit (MDL). The indicated MDL was used for the molar ionic ratio calculations.
 J = Parameter was estimated and detected between the MDL and the reporting limit.
 J* = Parameter was qualified at the reported concentration for being also detected in the corresponding field, equipment, or method blanks.
 mg/L = milligrams per liter
 mmol = millimoles

Table 3
 Summary of Arsenic Concentrations in Rock Cores and Groundwater
 Plant Bowen AP-1, Bartow County, Georgia

Well ID	Groundwater As (mg/L)		Rock Formation As (mg/kg) ⁽¹⁾
	Oct-2018	Apr-2019	Feb-2019
BGWC-20	<0.00057	0.00027 J	2.6
BGWC-31	0.0034 J	0.0036 J	2.8
BGWC-34D	0.013	0.015	13
BGWC-22	0.0016 J	0.0021 J	3.5
BGWC-23	0.0015 J	0.00093 J	0.76
BGWC-32	0.00076 J	0.00093 J	1.7
BGWC-35D	0.0019 J	0.0018 J	2.6
BGWC-30	0.00064 J	0.00024 J	1.6
BGWC-36D	0.00082 J	0.00039 J	1.1

Notes:

< = Parameter was not detected above the indicated method detection limit (MDL).

As = Arsenic

J = Parameter was estimated and detected between the MDL and the reporting limit.

mg/kg = milligrams per kilogram

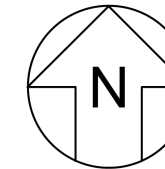
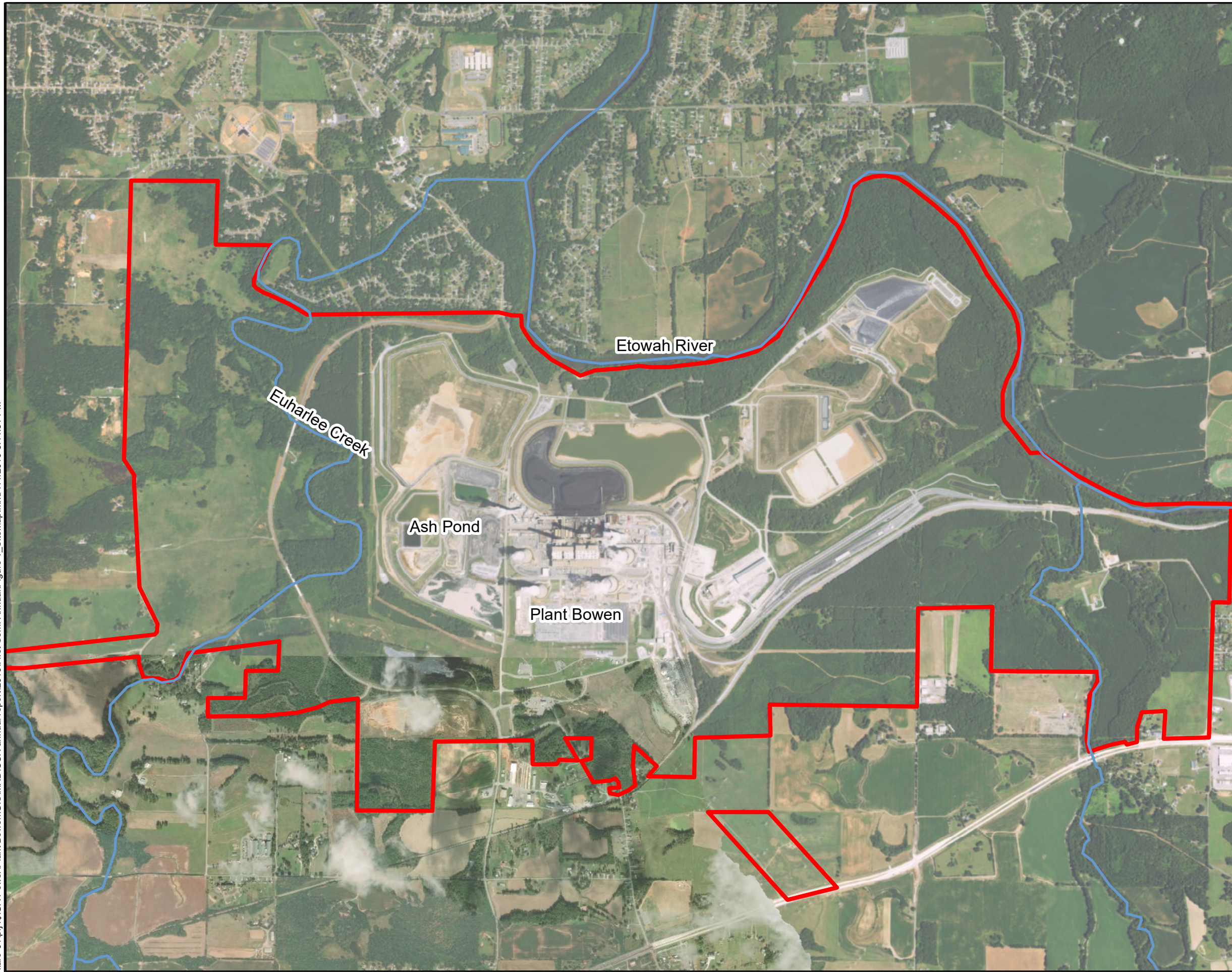
mg/L = milligrams per liter

(1) Rock samples were collected from the screen interval depth of its corresponding well.

(2) Wells are grouped by the primary compliance monitoring well and supporting adjacent horizontal and vertical delineation wells.

FIGURES

\\laro-01\proj\GA Power\Plant Bowen\GIS\MXD\CCR annual report\2019\First Semi-Annual\Figure 1_SiteMap.mxd 7/1/2019 3:44:51 PM

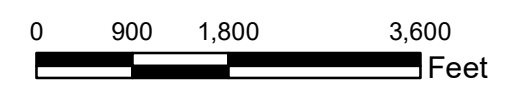


LEGEND

- Approximate Site Boundary
- River or Stream



Notes:
1. Aerial photograph source: USDA FSA, 2015.



SITE LOCATION MAP

GEORGIA POWER COMPANY
PLANT BOWEN AP-1
BARTOW COUNTY, GEORGIA

Prepared For: Georgia Power

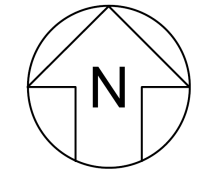
Prepared By: Geosyntec
consultants

KENNESAW, GA


JULY 2019

FIGURE
1

N:\GA Power\Plant Bowen\GIS\MXD\CRCR annual report\2019\First Semi-Annual\Figure 2_WellMap.mxd 7/23/2019 12:52:40 PM

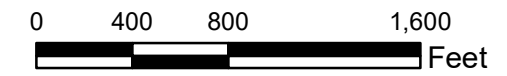


LEGEND

-  Compliance Monitoring Well
-  Delineation Monitoring Well
-  Characterization Monitoring Well
-  Groundwater Level Monitoring Piezometer



- Notes:
1. All wells and piezometers presented are screened within the weathered fractured bedrock.
 2. Aerial photograph source: Google Earth Pro, February 2018.



MONITORING WELL NETWORK MAP

GEORGIA POWER COMPANY
PLANT BOWEN AP-1
BARTOW COUNTY, GEORGIA

Prepared For:  Georgia Power

Prepared By:  Geosyntec
consultants

FIGURE
2

KENNESAW, GA

JULY 2019

APPENDIX A

Laboratory Analytical Report of Rock Cores

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Canton

4101 Shuffel Street NW

North Canton, OH 44720

Tel: (330)497-9396

TestAmerica Job ID: 240-108844-1

Client Project/Site: Plant Bowen GW6581C

For:

Geosyntec Consultants, Inc.

1255 Roberts Blvd, NW

Suite 200

Kennesaw, Georgia 30144

Attn: Mr. Whitney Law



Authorized for release by:

3/13/2019 2:48:44 PM

Veronica Bortot, Senior Project Manager

(412)963-2435

veronica.bortot@testamericainc.com

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Visit us at:

www.testamericainc.com

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

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

Definitions/Glossary

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Qualifiers

Metals

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Job ID: 240-108844-1

Laboratory: TestAmerica Canton

Narrative

**Job Narrative
240-108844-1**

Comments

No additional comments.

Receipt

The samples were received on 3/2/2019 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 3.0° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.



Method Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	TAL CAN
Part Size Red	Particle Size Reduction Preparation	None	TAL CAN
3050B	Preparation, Metals	SW846	TAL CAN
Part Size Red	Particle Size Reduction Preparation	None	TAL CAN

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396



Sample Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
240-108844-1	BGWC-35D-68-78-2019-02-28	Solid	02/28/19 10:15	03/02/19 09:45
240-108844-2	BGWC-31-38-48-2019-02-28	Solid	02/28/19 10:25	03/02/19 09:45
240-108844-3	BGWC-34D-67-77-2019-02-28	Solid	02/28/19 10:40	03/02/19 09:45
240-108844-4	BGWC-36D-47-57-2019-02-28	Solid	02/28/19 11:00	03/02/19 09:45
240-108844-5	BGWC-32-38-48-2019-02-28	Solid	02/28/19 11:10	03/02/19 09:45
240-108844-6	BGWC-36D-83-93-2019-02-28	Solid	02/28/19 11:15	03/02/19 09:45
240-108844-7	BGWC-30-47-57-2019-02-28	Solid	02/28/19 11:30	03/02/19 09:45
240-108844-8	BGWC-20-40-46-2019-02-28	Solid	02/28/19 11:45	03/02/19 09:45
240-108844-9	BGWC-22-30-36-2019-02-28	Solid	02/28/19 11:50	03/02/19 09:45
240-108844-10	BGWC-23-50-56-2019-02-28	Solid	02/28/19 12:00	03/02/19 09:45
240-108844-11	BGWC-34D-DUP-67-77-2019-02-28	Solid	02/28/19 10:50	03/02/19 09:45

Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-35D-68-78-2019-02-28

Lab Sample ID: 240-108844-1

Date Collected: 02/28/19 10:15

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.6		0.76	0.046	mg/Kg		03/06/19 08:00	03/06/19 16:52	2
Cobalt	0.51		0.15	0.040	mg/Kg		03/06/19 08:00	03/06/19 16:52	2
Molybdenum	1.5		0.76	0.19	mg/Kg		03/06/19 08:00	03/06/19 16:52	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-31-38-48-2019-02-28

Lab Sample ID: 240-108844-2

Date Collected: 02/28/19 10:25

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.8		0.72	0.043	mg/Kg		03/06/19 08:00	03/06/19 17:08	2
Cobalt	0.70		0.14	0.038	mg/Kg		03/06/19 08:00	03/06/19 17:08	2
Molybdenum	1.0		0.72	0.18	mg/Kg		03/06/19 08:00	03/06/19 17:08	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-34D-67-77-2019-02-28

Lab Sample ID: 240-108844-3

Date Collected: 02/28/19 10:40

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	13		0.84	0.050	mg/Kg		03/06/19 08:00	03/06/19 17:10	2
Cobalt	1.4		0.17	0.044	mg/Kg		03/06/19 08:00	03/06/19 17:10	2
Molybdenum	0.69	J	0.84	0.21	mg/Kg		03/06/19 08:00	03/06/19 17:10	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-36D-47-57-2019-02-28

Lab Sample ID: 240-108844-4

Date Collected: 02/28/19 11:00

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.83	0.050	mg/Kg		03/06/19 08:00	03/06/19 17:12	2
Cobalt	0.58		0.17	0.043	mg/Kg		03/06/19 08:00	03/06/19 17:12	2
Molybdenum	ND		0.83	0.21	mg/Kg		03/06/19 08:00	03/06/19 17:12	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-32-38-48-2019-02-28

Lab Sample ID: 240-108844-5

Date Collected: 02/28/19 11:10

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.7		0.72	0.043	mg/Kg		03/06/19 08:00	03/06/19 17:15	2
Cobalt	1.0		0.14	0.037	mg/Kg		03/06/19 08:00	03/06/19 17:15	2
Molybdenum	0.31	J	0.72	0.18	mg/Kg		03/06/19 08:00	03/06/19 17:15	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-36D-83-93-2019-02-28

Lab Sample ID: 240-108844-6

Date Collected: 02/28/19 11:15

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.1		0.86	0.052	mg/Kg		03/06/19 08:00	03/06/19 17:17	2
Cobalt	0.55		0.17	0.045	mg/Kg		03/06/19 08:00	03/06/19 17:17	2
Molybdenum	0.27	J	0.86	0.21	mg/Kg		03/06/19 08:00	03/06/19 17:17	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-30-47-57-2019-02-28

Lab Sample ID: 240-108844-7

Date Collected: 02/28/19 11:30

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.6		0.83	0.050	mg/Kg		03/06/19 08:00	03/06/19 17:19	2
Cobalt	0.66		0.17	0.043	mg/Kg		03/06/19 08:00	03/06/19 17:19	2
Molybdenum	ND		0.83	0.21	mg/Kg		03/06/19 08:00	03/06/19 17:19	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-20-40-46-2019-02-28

Lab Sample ID: 240-108844-8

Date Collected: 02/28/19 11:45

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.6		0.85	0.051	mg/Kg		03/06/19 08:00	03/06/19 17:22	2
Cobalt	0.59		0.17	0.044	mg/Kg		03/06/19 08:00	03/06/19 17:22	2
Molybdenum	0.66	J	0.85	0.21	mg/Kg		03/06/19 08:00	03/06/19 17:22	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-22-30-36-2019-02-28

Lab Sample ID: 240-108844-9

Date Collected: 02/28/19 11:50

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.5		0.75	0.045	mg/Kg		03/06/19 08:00	03/06/19 17:24	2
Cobalt	1.3		0.15	0.039	mg/Kg		03/06/19 08:00	03/06/19 17:24	2
Molybdenum	0.90		0.75	0.19	mg/Kg		03/06/19 08:00	03/06/19 17:24	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-23-50-56-2019-02-28

Lab Sample ID: 240-108844-10

Date Collected: 02/28/19 12:00

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.76		0.72	0.043	mg/Kg		03/06/19 08:00	03/06/19 17:27	2
Cobalt	0.70		0.14	0.037	mg/Kg		03/06/19 08:00	03/06/19 17:27	2
Molybdenum	ND		0.72	0.18	mg/Kg		03/06/19 08:00	03/06/19 17:27	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



Client Sample Results

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-34D-DUP-67-77-2019-02-28

Lab Sample ID: 240-108844-11

Date Collected: 02/28/19 10:50

Matrix: Solid

Date Received: 03/02/19 09:45

Method: 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.9		0.79	0.048	mg/Kg		03/06/19 08:00	03/06/19 17:29	2
Cobalt	1.3		0.16	0.041	mg/Kg		03/06/19 08:00	03/06/19 17:29	2
Molybdenum	0.28	J	0.79	0.20	mg/Kg		03/06/19 08:00	03/06/19 17:29	2

Method: Part Size Red - Particle Size Reduction Preparation

Analyte	Result	Qualifier	NONE	NONE	Unit	D	Prepared	Analyzed	Dil Fac
PSR sample generated	Done				NONE			03/05/19 15:20	1



QC Sample Results

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 240-370461/1-A ^2
Matrix: Solid
Analysis Batch: 370640

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 370461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.0	0.060	mg/Kg		03/06/19 08:00	03/06/19 16:47	2
Cobalt	ND		0.20	0.052	mg/Kg		03/06/19 08:00	03/06/19 16:47	2
Molybdenum	ND		1.0	0.25	mg/Kg		03/06/19 08:00	03/06/19 16:47	2

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Metals

Processed Batch: 370408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-108844-1	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-2	BGWC-31-38-48-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-3	BGWC-34D-67-77-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-4	BGWC-36D-47-57-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-5	BGWC-32-38-48-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-6	BGWC-36D-83-93-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-7	BGWC-30-47-57-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-8	BGWC-20-40-46-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-9	BGWC-22-30-36-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-10	BGWC-23-50-56-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-11	BGWC-34D-DUP-67-77-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-1 MS	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-1 MSD	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	Part Size Red	

Prep Batch: 370461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-108844-1	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-2	BGWC-31-38-48-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-3	BGWC-34D-67-77-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-4	BGWC-36D-47-57-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-5	BGWC-32-38-48-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-6	BGWC-36D-83-93-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-7	BGWC-30-47-57-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-8	BGWC-20-40-46-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-9	BGWC-22-30-36-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-10	BGWC-23-50-56-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-11	BGWC-34D-DUP-67-77-2019-02-28	Total/NA	Solid	3050B	370408
MB 240-370461/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 240-370461/3-A ^2	Lab Control Sample	Total/NA	Solid	3050B	
240-108844-1 MS	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	3050B	370408
240-108844-1 MSD	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	3050B	370408

Analysis Batch: 370640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-108844-1	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-2	BGWC-31-38-48-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-3	BGWC-34D-67-77-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-4	BGWC-36D-47-57-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-5	BGWC-32-38-48-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-6	BGWC-36D-83-93-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-7	BGWC-30-47-57-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-8	BGWC-20-40-46-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-9	BGWC-22-30-36-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-10	BGWC-23-50-56-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-11	BGWC-34D-DUP-67-77-2019-02-28	Total/NA	Solid	6020B	370461
MB 240-370461/1-A ^2	Method Blank	Total/NA	Solid	6020B	370461
LCS 240-370461/3-A ^2	Lab Control Sample	Total/NA	Solid	6020B	370461
240-108844-1 MS	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	6020B	370461
240-108844-1 MSD	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	6020B	370461

TestAmerica Canton

QC Association Summary

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Organic Prep

Analysis Batch: 371063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
240-108844-1	BGWC-35D-68-78-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-2	BGWC-31-38-48-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-3	BGWC-34D-67-77-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-4	BGWC-36D-47-57-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-5	BGWC-32-38-48-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-6	BGWC-36D-83-93-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-7	BGWC-30-47-57-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-8	BGWC-20-40-46-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-9	BGWC-22-30-36-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-10	BGWC-23-50-56-2019-02-28	Total/NA	Solid	Part Size Red	
240-108844-11	BGWC-34D-DUP-67-77-2019-02-28	Total/NA	Solid	Part Size Red	

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-35D-68-78-2019-02-28

Lab Sample ID: 240-108844-1

Date Collected: 02/28/19 10:15

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.31 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 16:52	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-31-38-48-2019-02-28

Lab Sample ID: 240-108844-2

Date Collected: 02/28/19 10:25

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.38 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:08	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-34D-67-77-2019-02-28

Lab Sample ID: 240-108844-3

Date Collected: 02/28/19 10:40

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.19 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:10	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-36D-47-57-2019-02-28

Lab Sample ID: 240-108844-4

Date Collected: 02/28/19 11:00

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.21 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:12	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-32-38-48-2019-02-28

Lab Sample ID: 240-108844-5

Date Collected: 02/28/19 11:10

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.39 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:15	DSH	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-32-38-48-2019-02-28

Lab Sample ID: 240-108844-5

Date Collected: 02/28/19 11:10

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-36D-83-93-2019-02-28

Lab Sample ID: 240-108844-6

Date Collected: 02/28/19 11:15

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.16 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:17	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-30-47-57-2019-02-28

Lab Sample ID: 240-108844-7

Date Collected: 02/28/19 11:30

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.20 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:19	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-20-40-46-2019-02-28

Lab Sample ID: 240-108844-8

Date Collected: 02/28/19 11:45

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.17 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:22	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-22-30-36-2019-02-28

Lab Sample ID: 240-108844-9

Date Collected: 02/28/19 11:50

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.33 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:24	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

TestAmerica Canton

Lab Chronicle

Client: Geosyntec Consultants, Inc.
Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Client Sample ID: BGWC-23-50-56-2019-02-28

Lab Sample ID: 240-108844-10

Date Collected: 02/28/19 12:00

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.39 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:27	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Client Sample ID: BGWC-34D-DUP-67-77-2019-02-28

Lab Sample ID: 240-108844-11

Date Collected: 02/28/19 10:50

Matrix: Solid

Date Received: 03/02/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Processed	Part Size Red					370408	03/05/19 15:20	POP	TAL CAN
Total/NA	Prep	3050B			1.26 g	100 mL	370461	03/06/19 08:00	MBB	TAL CAN
Total/NA	Analysis	6020B		2			370640	03/06/19 17:29	DSH	TAL CAN
Total/NA	Analysis	Part Size Red		1			371063	03/05/19 15:20	DRJ	TAL CAN

Laboratory References:

TAL CAN = TestAmerica Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: Geosyntec Consultants, Inc.
 Project/Site: Plant Bowen GW6581C

TestAmerica Job ID: 240-108844-1

Laboratory: TestAmerica Canton

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

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2927	02-23-20
Connecticut	State Program	1	PH-0590	12-31-19
Florida	NELAP	4	E87225	06-30-19
Illinois	NELAP	5	200004	07-31-19
Kansas	NELAP	7	E-10336	04-30-19 *
Kentucky (UST)	State Program	4	58	02-23-20
Kentucky (WW)	State Program	4	98016	12-31-19
Minnesota	NELAP	5	039-999-348	12-31-19 *
Minnesota (Petrofund)	State Program	1	3506	07-31-19
Nevada	State Program	9	OH00048	07-31-19
New Jersey	NELAP	2	OH001	06-30-19
New York	NELAP	2	10975	03-31-19 *
Ohio VAP	State Program	5	CL0024	09-06-19
Oregon	NELAP	10	4062	02-23-20
Pennsylvania	NELAP	3	68-00340	08-31-19 *
Texas	NELAP	6	T104704517-18-10	08-31-19
USDA	Federal		P330-16-00404	12-28-19
Virginia	NELAP	3	460175	09-14-19
Washington	State Program	10	C971	01-12-20 *
West Virginia DEP	State Program	3	210	12-31-19

Laboratory: TestAmerica Pittsburgh

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Arkansas DEQ	State Program	6	88-0690	06-27-19
California	State Program	9	2891	04-30-19
Connecticut	State Program	1	PH-0688	09-30-20
Florida	NELAP	4	E871008	06-30-19
Illinois	NELAP	5	200005	06-30-19
Kansas	NELAP	7	E-10350	01-31-20
Louisiana	NELAP	6	04041	06-30-19
Nevada	State Program	9	PA00164	07-31-19
New Hampshire	NELAP	1	2030	04-04-19
New Jersey	NELAP	2	PA005	06-30-19
New York	NELAP	2	11182	03-31-19 *
North Carolina (WW/SW)	State Program	4	434	12-31-19
Oregon	NELAP	10	PA-2151	01-28-19 *
Pennsylvania	NELAP	3	02-00416	04-30-19
South Carolina	State Program	4	89014	04-30-19
Texas	NELAP	6	T104704528-15-2	03-31-19 *
US Fish & Wildlife	Federal		LE94312A-1	07-31-19
USDA	Federal		P330-16-00211	06-26-19
Utah	NELAP	8	PA001462015-4	05-31-19
Virginia	NELAP	3	460189	09-14-19
West Virginia DEP	State Program	3	142	01-31-20
Wisconsin	State Program	5	998027800	08-31-19

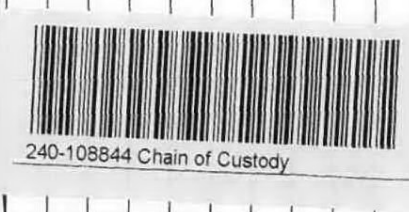
* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Canton
 4101 Shurfel Street NW
 North Canton, OH 44720-6900
 Main Phone: 330-497-9396

Quest-189 3-2-19 2.8 / C2.6
Chain of Custody Record

TestAmerica
 180-50076-10525.1

Quest-189

Client Information		Lab PM: Bortol, Veronica		Carrier Tracking No(s):	
Client Contact: Mr. Whitney Law		E-Mail: veronica.bortol@testamericainc.com		COC No: 180-50076-10525.1	
Company: Geosyntec Consultants, Inc.		Phone: 678-237-7434		Page 1 of 1	
Address: 1255 Roberts Blvd, NW Suite 200		Due Date Requested: <i>NLT 3/11/19</i>		GW5581C	
City: Kennesaw		TAT Requested (days): 10-day		Preservation Codes:	
State: GA, 30144		Purchase Order Requested		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AshNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - PH 4-5 Z - other (specify)	
Phone: 678-202-9573(Tel)		Project # 18020125		Other:	
Email: wlaw@geosyntec.com		SSOW#		Special Instructions/Note:	
Project Name: GW5581C		Matrix			
Site: Plant Bowen		Sample Type (W=water, S=solid, O=washbottle, BT=tissue, A=Air)			
Sample Identification		Sample Type (C=Comp, G=grab)			
BGWC-35D-68-78-2019-02-28		Preservation Code			
BGWC-31-38-48-2019-02-28		Sample Date			
BGWC-34D-67-77-2019-02-28		Sample Time			
BGWC-36D-47-57-2019-02-28		Sample Date			
BGWC-32-38-48-2019-02-28		Sample Time			
BGWC-36D-83-93-2019-02-28		Sample Date			
BGWC-30-47-57-2019-02-28		Sample Time			
BGWC-20-40-46-2019-02-28		Sample Date			
BGWC-22-30-36-2019-02-28		Sample Time			
BGWC-23-50-56-2019-02-28		Sample Date			
BGWC-34D-DUP-67-77-2019-02-28		Sample Time			

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

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

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: *[Signature]* Date: *3/1/19 9:47* Company: *Geosyntec*

Relinquished by: *[Signature]* Date: *16/10* Company: *TA*

Relinquished by: *[Signature]* Date: *3/1/19* Company: *TA*

Custody Seals Intact: Yes No

Custody Seal No.: _____

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

Special Instructions/QC Requirements:



TestAmerica Canton Sample Receipt Form/Narrative
Canton Facility

Login #: 108844

Client Geosyntec Consultants Inc Site Name _____
 Cooler Received on 3-2-19 Opened on 3-2-19
 FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Cooler unpacked by: _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1A Foam Box Client Cooler Box Other _____
 Packing material used: Bubble Wrap Foam Plastic Bag None Other _____
 COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt See Multiple Cooler Form
 IR GUN# IR-8 (CF -0.2 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
 IR GUN #36 (CF +0.7°C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 2 Yes No
 -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
 -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
 -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
 If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC861525
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? Yes No

Tests that are not checked for pH by Receiving:

 VOAs
 Oil and Grease
 TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other _____

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES

Samples processed by: _____

Martin

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
 Sample(s) _____ were received in a broken container.
 Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
 Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

APPENDIX D

Supplemental Semi-Annual Remedy Selection and Design Progress Report



Prepared for

Georgia Power Company
241 Ralph McGill Blvd NE
Atlanta, Georgia 30308

**SUPPLEMENTAL SEMI-ANNUAL
REMEDY SELECTION AND DESIGN
PROGRESS REPORT
PLANT BOWEN ASH POND 1 (AP-1)**

Prepared by

Geosyntec 
consultants

engineers | scientists | innovators

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144

Project Number GW6581C

January 2020

**SUPPLEMENTAL SEMI-ANNUAL REMEDY SELECTION AND DESIGN
PROGRESS REPORT**

GEORGIA POWER COMPANY - PLANT BOWEN

ASH POND 1 (AP-1)

This Supplemental Semi-Annual Remedy Selection and Design Progress Report, Georgia Power Company - Plant Bowen, Ash Pond 1 (AP-1), has been prepared in accordance with the United States Environmental Protection Agency coal combustion residual rule, specifically 40 Code of Federal (CFR) § 257.97(a) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10(6)(a).

Report Prepared by:



Whitney B. Law, P.E.
Georgia Professional Engineer No. 036641



January 30, 2020

Date

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LIST OF ACRONYMS

ACM	Assessment of Corrective Measures
AP	ash pond
CCR	coal combustion residuals
CFR	Code of Federal Regulations
CSM	conceptual site model
GA EPD	Georgia Environmental Protection Division
Geosyntec	Geosyntec Consultants, Inc.
GPC	Georgia Power Company
GWPS	Groundwater Protection Standard
MNA	monitored natural attenuation
PRB	permeable reactive barriers
SSI	statistically significant increase
SSL	statistically significant level
US EPA	United States Environmental Protection Agency

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D; published in 80 FR 21302-21501, April 17, 2015) (CCR Rule), Geosyntec Consultants, Inc. (Geosyntec) has prepared this *Supplemental Semi-Annual Remedy Selection and Design Progress Report* (Semi-Annual Progress Report) for Georgia Power Company (GPC) Plant Bowen Ash Pond 1 (AP-1 or Site). Specifically, this Semi-Annual Progress Report has been prepared pursuant to 40 CFR § 257.97(a) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10(6)(a). This Semi-Annual Progress Report was prepared to document activities conducted in the third and fourth quarters of 2019, and the supplementary activities conducted between December 12, 2019 and January 29, 2020 as described below, in support of the submitted *Assessment of Corrective Measures Report – Plant Bowen Ash Pond 1 (AP-1)* (Geosyntec, 2019b) (ACM Report). As required by the rules, this Semi-Annual Progress Report describes the progress made in selecting and designing a remedy.

The initial Semi-Annual Progress Report was submitted to GA EPD on December 12, 2019 (Geosyntec, 2019c). This supplemental Semi-Annual Progress Report provides the documents included with the initial Semi-Annual Progress Report supplemented with results of additional well installation and groundwater data analysis conducted between December 12, 2019 and January 29, 2020. Details of the additional work and results are described in Section 2.1. This supplemental Semi-Annual Progress Report has been included as an appendix to the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2020b). GPC will include future semi-annual remedy selection progress reports as an appendix to the routine semi-annual groundwater monitoring and corrective action reports.

On June 12, 2019, Geosyntec completed, on behalf of GPC, the ACM Report to evaluate potential corrective measures to address statistically significant levels (SSLs) of cobalt and molybdenum identified in groundwater at AP-1 (Geosyntec, 2019b). GPC placed the ACM in the Site's operating record and posted to the Site's CCR Rule Compliance website. Pursuant to 40 CFR § 257.97, GPC is evaluating the potential corrective measures presented in the ACM in order to identify an appropriate remedy, or combination of remedies, as soon as feasible.

As discussed in the ACM Report, the following corrective measures are potentially feasible for use at AP-1:

1. Geochemical Manipulation (In-Situ Injection)
2. Hydraulic Containment (Pump and Treat)
3. Monitored Natural Attenuation (MNA)
4. Permeable Reactive Barrier (PRB)
5. Phytoremediation
6. Subsurface Vertical Barrier Walls

Plant Bowen is a four-unit, coal-fired, electric-generating facility that commenced operations in the 1970s. The plant is located nine miles southwest of Cartersville in Bartow County, Georgia. The plant is bordered by the Etowah River to the north and east, and Euharlee Creek to the northwest and west (**Figure 1**).

Plant Bowen has a single CCR ash pond (AP-1) that occupies an area of approximately 254 acres. In preparation for AP-1 closure, the plant is undergoing the final phases of work for the conversion to dry handling so that AP-1 no longer receives CCR. Additionally, active projects are ongoing at the plant to remove gypsum waste streams from AP-1. GPC will close AP-1 by excavation and consolidation of CCR material into an approximately 144-acre fully-lined, multi-cell storage facility situated within the current footprint of AP-1. Closure activities will be conducted in accordance with 40 CFR § 257.102 and corresponding Rule 391-3-4-.10(7)(b). The proposed closure approach provides a source control measure that reduces the potential for migration of CCR constituents to groundwater. Details of the closure approach have been summarized in the Amended Written Closure Plan and published in 2018 to GPC's CCR Rule Compliance website.

2.0 SUMMARY OF WORK COMPLETED

2.1 Nature and Extent Delineation

CCR compliance groundwater monitoring-related activities have been performed for AP-1 since June 2016 pursuant to detection monitoring and assessment monitoring programs required by 40 CFR § 257.94 and 40 CFR § 257.95, respectively. GPC initiated the assessment monitoring program in January 2018 after identifying statistically significant increases (SSIs) of Appendix III parameter groundwater concentrations over background concentrations. Pursuant to 40 CFR § 257.95, samples were collected from the compliance monitoring well network, depicted on **Figure 2**, during 2018 and analyzed for Appendix IV parameters. SSLs of cobalt and molybdenum were identified within the 2018 data for the following wells:

- Cobalt: BGWC-22; and
- Molybdenum: BGWC-20, BGWC-22, BGWC-23, and BGWC-30

The BGWC-22 cobalt concentrations reported in 2018 exceeded the US EPA and GA EPD groundwater protection standards (GWPS), as derived pursuant to US EPA rule 40 CFR § 257.95(h) and GA EPD CCR Rule 391-3-4-.10(6)(a). The molybdenum concentrations in the above four wells exceeded the derived GA EPD GWPS, but not the US EPA GWPS. Details of these sampling events and statistical analyses are provided in the following report published to GPC's website and submitted to GA EPD in 2019: *2018 Annual Groundwater Monitoring and Corrective Action Report – Plant Bowen Ash Pond 1 (AP-1)* (Geosyntec, 2019a).

Pursuant to 40 CFR § 257.96, groundwater in the vicinity of AP-1 continues to be monitored during the remedy selection phase in accordance with the established assessment monitoring program. As part of the assessment program, eight additional groundwater monitoring wells were installed in 2018 and 2019 to provide additional data to characterize flow conditions downgradient of AP-1 and to horizontally and vertically delineate SSLs of cobalt and molybdenum from the four target wells previously listed. Wells BGWC-31 and BGWC-32 were installed for horizontal delineation and wells BGWC-34D, BGWC-35D, BGWC-36D, BGWC-37D, and BGWC-38D were installed for vertical delineation. Well BGWA-33 was installed as a characterization well to assess conditions and groundwater levels approaching the Plant Bowen property boundary to the south. At the time of the above well installation efforts, piezometer BGWA-6 was suitably located downgradient of target well BGWC-30 and was therefore selected as a

delineation well. Prior to 2018, BGWA-6 had only been used for gauging groundwater levels. The locations of these wells are shown on **Figure 2**. Supporting details and documents (e.g., boring logs, well construction table) are provided in the ACM Report.

Based on the groundwater data generated from the September 2019 second semi-annual assessment monitoring event, molybdenum concentrations reported in horizontal delineation wells BGWC-31, BGWC-32, and BGWA-6 are below the state and federal GWPS and therefore delineate the constituent to within the property boundary. The molybdenum concentration reported in well BGWC-34D is below the state and federal GWPS, and therefore vertically delineates the molybdenum SSL reported for well BGWC-20. Vertical delineation of molybdenum in wells BGWC-22, BGWC-23, and BGWC-30 is currently in progress.

In support of horizontally delineating the cobalt SSL reported for well BGWC-22, an additional delineation well (BGWC-39) was installed downgradient of BGWC-32 in early-December. A detailed boring and well construction log is provided in **Appendix A**. One additional delineation well (BGWC-40) and two piezometers (PZ-5, PZ-6) were also installed during the December 2019 field efforts to characterize groundwater conditions. Well BGWC-40 was installed to horizontally delineate general groundwater conditions southwest of AP-1; the two piezometers were installed to characterize flow conditions also southwest of AP-1. A well installation report documenting the installation of these wells and piezometers was submitted to GA EPD under separate cover on January 15, 2020 (Geosyntec, 2020a). The locations of these four new wells and piezometers are shown on **Figure 2**.

A groundwater sample was collected from well BGWC-39 and analyzed for Appendix III constituents and cobalt on December 13, 2019. The associated laboratory report is provided in **Appendix B**. Based on the groundwater data generated from the September 2019 second semi-annual assessment monitoring event and the supplementary December 2019 event, cobalt concentrations in delineation wells BGWC-39 and BGWC-35D are below the current state and federal GWPS and therefore delineates cobalt, both horizontally and vertically, to within the property boundary for compliance well BGWC-22.

The September 2019 data are provided in the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2020b).

2.2 Summary of Corrective Measures

The closure of AP-1 by excavation and consolidation of the CCR material into a fully-lined, multi-cell storage facility is a source control measure that reduces the potential for migration of CCR constituents to groundwater. The corrective measures proposed in the ACM are being evaluated to address SSLs in groundwater at and downgradient of the compliance boundary. Each individual corrective measure is evaluated relative to criteria specified in 40 CFR § 257.96(c) and 40 CFR § 257.97(b). A comparative screening of the corrective measures is provided in **Table 1**; the following provides a brief description of each corrective measure being screened.

- **Geochemical Approaches (In-Situ Injection):** *Use of an injection well network, or other means of introducing reagents or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of cobalt and molybdenum.*
- **Hydraulic Containment (Pump and Treat):** *The use of groundwater extraction system(s) to induce a hydraulic gradient for hydraulic capture or control the migration of impacted groundwater. Extracted water may require subsequent above-ground treatment before permitted discharge or reuse.*
- **Monitored Natural Attenuation (MNA):** *MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods.*
- **Permeable Reactive Barrier (PRB):** *PRB technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through.*
- **Phytoremediation:** *Phytoremediation uses trees and other plants to degrade or immobilize constituents or achieve hydraulic control without the need for an above-ground water treatment system and infrastructure.*
- **Subsurface Vertical Barrier Walls:** *This approach involves placing a barrier to groundwater flow in the subsurface, frequently around a source area, to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas. Groundwater extraction from upgradient of the barrier is required to avoid groundwater mounding behind the barrier.*

2.3 Field Investigation and Data Collection

Additional data, data analysis, and site-specific evaluation are necessary to refine the conceptual site model (CSM) and to further evaluate the feasibility of each proposed corrective measure. This investigation may occur in different phases as the understanding of site conditions expands. When feasible, data needed to refine the CSM will be collected concurrent with the routine assessment monitoring events. However, supplementary field investigations may be required to complete the data gathering efforts during the remedy selection phase.

Table 2 presents a summary of data collection activities completed during the second 2019 semi-annual reporting period in support of remedy selection. The applicability and rationale for specific actions and/or analysis of specific parameters are also provided on **Table 2**.

Field efforts completed at AP-1 during the reporting period included collecting supplementary groundwater samples to evaluate:

- Attenuation mechanisms and rates and aquifer capacity for attenuation;
- Amount and distribution of select metal hydroxides or electron donors that may affect geochemical mechanisms; and
- Groundwater parameters specific to the existing National Pollutant Discharge Elimination System (NPDES) permitted discharge limits and capabilities of on-site low volume wastewater treatment plant.

The groundwater samples discussed above were collected during the second semi-annual assessment monitoring event conducted in September 2019. During the event, a site-wide round of groundwater level data were recorded from the AP-1 well network depicted on **Figure 2**. The groundwater level data were used to generate the potentiometric surface map provided on **Figure 3**.

The ACM-related analytical results from the September 2019 event are summarized in **Tables 3a, 3b, and 3c**. The tables present parameters needed to evaluate in-situ conditions that may affect the performance and feasibility of the corrective measures. As previously mentioned, the Appendix III and IV groundwater data collected during the September 2019 event are not presented herein, but instead are provided in the *2019 Annual Groundwater Monitoring and Corrective Action Report* (Geosyntec, 2020b).

The laboratory reports associated with the data presented on Tables 3a, 3b, and 3c are included in **Appendix B**.

3.0 PLANNED ACTIVITIES & ANTICIPATED SCHEDULE

During the pond closure, temporary changes in site conditions may occur that must be considered as part of remedy selection. GPC proactively initiated adaptive site management as outlined in the ACM Report (Geosyntec, 2019b) to support the remedial strategy and address potential changes in site conditions as appropriate. The adaptive site management approach may be adjusted over the site's life cycle as new site information and technologies become available. To this end, GPC will continue its data collection efforts as necessary in support of efforts to refine the CSM and to further evaluate the feasibility of each corrective measure proposed in the ACM Report. At this time, all corrective measures outlined in **Table 1** are being retained. Once sufficient data are available to arrive at a focused number of corrective measures or a combination of corrective measures that would provide an effective groundwater remedy, necessary steps will be taken to implement a remedy for AP-1 in accordance with 40 CFR § 257.98.

Supplementary data collection and evaluation activities proposed to be completed during the next semi-annual reporting period are presented on **Table 4**. GPC will continue to prepare semi-annual progress reports to document AP-1 groundwater conditions, results associated with additional data gathering, and the progress in selecting and designing the remedy in accordance with 40 CFR § 257.97(a). GPC will include future semi-annual remedy selection progress reports in routine groundwater monitoring and corrective action reports. Record keeping, notifications, and publicly accessible internet site requirements for the semi-annual remedy selection progress reports will be provided in accordance with 40 CFR § 257.105(h)(12), 257.106(h)(9), and 257.107(h)(9), respectively.

4.0 REFERENCES

- Geosyntec Consultants. 2019a. *2018 Annual Groundwater Monitoring and Corrective Action Report - Plant Bowen Ash Pond 1 (AP-1)*. January 2019.
- Geosyntec Consultants, 2019b. *Assessment of Corrective Measures Report – Plant Bowen Ash Pond 1 (AP-1)*. June 2019.
- Geosyntec Consultatns, 2019c. *Semi-Annual Remedy Selection and Design Progress Report – Plant Bowen Ash Pond 1 (AP-1)*. December 2019.
- Geosyntec Consultants, 2020a. *Ash Pond Monitoring Well Certification Report – Addendum No.2, Plant Bowen Ash Pond 1*. January 2020.
- Geosyntec Consultants. 2020b. *2019 Annual Groundwater Monitoring and Corrective Action Report - Plant Bowen Ash Pond 1 (AP-1)*. January 2020.
- U.S. Environmental Protection Agency. 2015a. Federal Register. Volume 80. No. 74. Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule. [EPA-HQ-RCRA–2009–0640; FRL–9919–44–OSWER]. RIN–2050–AE81, April 2015.

TABLES

Table 1
Evaluation of Remedial Technologies
Plant Bowen AP-1, Bartow County, Georgia

Corrective Measure	Regulatory Citation for Criteria:	40 CFR 257.96(C)(1)	
	Description	Performance	Reliability
Geochemical Approaches (In-Situ Injection)	Use of an injection well network, or other means of introducing reagents or air into the subsurface, to provide suitable reagents for either anaerobic or aerobic attenuation of Co and Mo. Under anaerobic conditions, Co would be attenuated within sparingly soluble sulfide minerals; this approach might also increase the attenuation of Mo. Under aerobic conditions, soluble iron or manganese and oxygen (either via air sparging or through a chemical oxidant) would be injected to promote the formation of iron or manganese (oxy-) hydroxides for subsequent sorption of Co (and potentially, Mo) onto these mineral phases. If sufficient iron is present in groundwater, the use of air sparging alone may be considered to precipitate iron (oxy-) hydroxides for sorption. In-situ chemical oxidation (ISCO) or in-situ chemical reduction (ISCR) can be used to chemically alter the redox environment in the subsurface to affect the mobility of certain inorganic compounds, including Co. However, the main attenuation mechanism for Co and Mo is sorption, which is more dependent on pH than redox.	The effective immobilization of Co has been shown under aerobic and anaerobic conditions; however, the anaerobic approach (involving the injection of an electron donor together with iron or manganese and sulfur) requires careful study and testing. While aerobic approaches are somewhat less complex, additional aquifer characterization is needed to further evaluate these options. It is currently not well understood whether molybdenum can be efficiently attenuated using in-situ redox manipulations due to slow reaction kinetics. Mo attenuation under both aerobic and anaerobic conditions needs to be further evaluated but is expected to occur. Mo is more strongly sorbed to aluminum oxides than other metal oxides, and it is generally less sorptive and more mobile compared to Co.	Reliability dependent on permeability of the subsurface and the amount and distribution of secondary iron or manganese (oxy-) hydroxides (for aerobic approach), or electron donors and soluble iron or manganese and sulfur that can be consistently distributed (for anaerobic approach). Reliable technology if injected materials can be distributed throughout the impacted aquifer. Bench-and/or pilot-scale treatability testing programs are needed to understand the biogeochemical processes that would effectively reduce migration of Co and Mo in groundwater.
Hydraulic Containment ("Pump and Treat")	Hydraulic containment refers to the use of groundwater extraction to induce a hydraulic gradient for hydraulic capture or control the migration of impacted groundwater. This approach uses extraction wells or trenches to capture groundwater, which may subsequently require above-ground treatment and permitted discharge to a receiving water feature, reinjection into the groundwater, or reuse (e.g., land application, CCR conditioning, etc.). It is applicable to a variable mix of inorganic constituents, including dissolved Co and Mo.	Pump and treat (P&T) is effective at providing hydraulic control, but it is unclear whether full groundwater remediation can be achieved without further understanding attenuation mechanisms at the Site. At AP-1, implementation of the corrective measure is contingent on completing additional assessment activities (i.e. high-resolution site characterization, additional pump tests, flow modeling, and capture zone analysis). This is needed to refine the constituent distribution in the subsurface to target specific zones for pumping for improved mass recovery efficiency/ effectiveness and to further evaluate the potential remedy performance.	Generally reliable for hydraulic containment, but uncertainty exists whether groundwater remediation goals can be achieved within a reasonable time frame without further understanding attenuation mechanisms.
Monitored Natural Attenuation (MNA)	MNA relies on natural attenuation processes to achieve site-specific remediation objectives within a reasonable time frame relative to more active methods. Under certain conditions (e.g., through sorption, mineral precipitation or oxidation-reduction reactions), MNA effectively reduces the dissolved concentrations of inorganic constituents in groundwater. Attenuation mechanisms for inorganic constituents at CCR sites, including cobalt (Co) and molybdenum (Mo) at AP-1, are either physical (e.g. dilution, dispersion, flushing, and related processes) or chemical (e.g., sorption or oxidation reduction reactions). Chemical attenuation processes include precipitation and sorption reactions such as adsorption on the surfaces of soil minerals, absorption into the matrix of soil minerals, or partitioning into organic matter. Further, oxidation-reduction (redox) reactions, via abiotic or biotic processes, can transform the valence states of some inorganic constituents to less soluble and thus less mobile forms. For Co and Mo, the main attenuation processes include sorption to iron and manganese oxides (Co and Mo), aluminum oxides (Mo), and formation of sparingly soluble sulfide minerals (Co).	Physical and chemical MNA mechanisms for Co and Mo, including dilution, dispersion, sorption, and oxidation reduction reactions can be effective at achieving groundwater protection standards (GWPS) within a reasonable time frame. Attenuation processes for Co and Mo are already occurring at the site as evidenced by data from the delineation wells. Source control will improve the mass balance such that the buffer capacity of the aquifer is unlikely to be exhausted, and the attenuation processes already at work for Co and Mo at AP-1 will further enhance ongoing MNA.	Reliable as long as the aquifer conditions that result in Co and Mo attenuation remain favorable and/or are being enhanced and sufficient attenuation capacity is present. MNA is reliable and can either be used as a stand-alone corrective measure for groundwater impacted by dissolved Co and/or Mo, or in combination with a second technology.
Permeable Reactive Barrier	Permeable reactive barrier (PRB) technology typically involves the installation of a permeable subsurface wall constructed with reactive media for the removal of constituents as groundwater passes through. Either ZVI-Carbon matrix or solid carbon (bio-barrier) are currently proposed for the concurrent removal of Co and Mo. The carbon could be composed of peat moss, mulch or another carbon source. Exact placement of the PRB is contingent on finalization of the nature and extent characterization. PRB walls are typically keyed into the bedrock. While the shallow groundwater in the residuum and fractured bedrock is connected to the groundwater in more competent bedrock, the higher permeability/conductivity of the PRB is not expected to impede groundwater flow. PRBs can also be constructed as "funnel and gate" systems, where a barrier wall directs groundwater to a smaller "treatment gate" filled with reactive media.	PRBs have been shown to effectively address Co and Mo in groundwater if the right mix of reactive materials (e.g., ZVI and carbon) is selected for concurrent removal/immobilization of these constituents. The approach is expected to achieve GWPS for both constituents as impacted groundwater passes through the reactive barrier. Molybdenum redox kinetics may be slow and hence a thicker wall might be needed relative to solely treating for Co. Furthermore, additional testing is required to select the appropriate sorptive media mix, especially related to Mo.	Reliable groundwater corrective measure, but loss of reactivity over time may require re-installation depending on the duration of the remedy. Additional data collection, including conducting a bench and/or pilot study, is needed to better characterize current attenuation mechanisms and/or select the appropriate reactive media mix for a PRB wall.
Phytoremediation / TreeWells	Phytoremediation uses trees and other plants to degrade or immobilize constituents or achieve hydraulic control without the need for an above-ground water treatment system and infrastructure. Within the context of AP-1, this corrective measure would likely use an engineered (proprietary) TreeWell® phytoremediation system along the point of compliance or downgradient edge of the impacted groundwater for hydraulic control. The system promotes root development to the targeted groundwater zone (depth), allowing for hydraulic control of impacted groundwater. In addition, immobilization of Co and Mo within the root zone as well as incidental uptake of dissolved Co and Mo with groundwater is expected to occur concurrent with hydraulic control.	Once established (typically at the end of the third growing season), a TreeWell system is effective for providing hydraulic containment of groundwater, and potential reduction of Co and Mo concentrations through immobilization and/or uptake and sequestration in the tree biomass; however, the main purpose is to provide hydraulic control. Given the site-specific hydrogeology and reported Co and Mo groundwater concentrations surrounding AP-1, the approach is currently considered to be applicable in this setting. However, additional aquifer testing and/or groundwater flow modeling may be needed to confirm suitability for the area downgradient of AP-1.	Engineered phytoremediation is a proven technology where hydrogeologic factors are taken into account (e.g., hydraulic conductivity, flow velocity, depth to impacted groundwater zone, etc.). This is considered an active remedial approach through the use of trees as the "pumps" driving the system. Careful design will be needed to select the proper species, which will include consideration of groundwater chemistry, plant uptake of constituents, and groundwater flow modeling to evaluate the required number and placement of TreeWell® units.
Subsurface Vertical Barrier Walls	This approach involves placing a barrier to groundwater flow in the subsurface, frequently around a source area, to prevent future migration of dissolved constituents in groundwater from beneath the source to downgradient areas. In general, barrier walls are designed to provide containment; localized treatment achieved through the sorption or chemical precipitation reactions from construction of the walls are incidental to the design objective. Barrier walls can also be used in downgradient applications; to limit discharge to a surface water feature or to reduce aquifer recharge from an adjacent surface water feature when groundwater extraction wells are placed near one. A variety of barrier materials can be used, including cement and/or bentonite slurries, geomembrane composite materials, or driven materials such as steel or vinyl sheet pile. Groundwater extraction from upgradient of the barrier is required to avoid groundwater mounding behind the barrier.	Barrier walls are a proven technology for seepage control and/or groundwater cutoff at impoundments. Slurry walls are limited by the depth of installation, which is approximately 90 ft bgs. However, site-specific geologic and technology-specific considerations may limit this depth to shallower installations. Within the context of AP-1, a barrier wall might be used in conjunction with a "funnel and gate" system for a PRB rather than a stand-alone technology. As such, groundwater with Co and Mo above GWPS could either be directed to "treatment gates" for passive treatment (in a PRB) or migration of impacted groundwater could be minimized via barrier wall installation. Additional subsurface investigations, aquifer testing, and compatibility testing with site-specific groundwater will be needed.	Generally reliable as a barrier to groundwater flow; however, treatment of downgradient groundwater is incidental and not the primary objective.

Table 1
Evaluation of Remedial Technologies
Plant Bowen AP-1, Bartow County, Georgia

Corrective Measure	40 CFR 257.96(C)(1) Ease of Implementation	40 CFR 257.96(C)(1) Potential Impacts	40 CFR 257.96(C)(2) Time Requirement to Begin/Complete
Geochemical Approaches (In-Situ Injection)	Moderate. Installation of injection well network or other injection infrastructure would be required. Alternative installation approaches may be considered, such as along the downgradient edge of impacted groundwater, which would function similar to a PRB application. Potential for clogging of aquifer matrix and/or injection well infrastructure. Chemical distribution during injections (i.e., radius of influence) needs to be evaluated.	Minimal impacts are expected if remedy works as designed, based on a thorough pre-design investigation, geochemical modeling, and bench/pilot study results. Redox-altering processes have the potential to mobilize naturally-occurring constituents as an unintended consequence if not properly studied and implemented.	Installation of the injection network can be accomplished relatively quickly (1 to 2 months). However, a thorough pre-design investigation, geochemical modeling, and/or bench- and/or pilot-testing will be required to obtain design parameters prior to design and construction of the corrective measure, which may take up to 24 months. Once installed, the time required to achieve GWPS within the treatment area may be relatively quick but depends on the attenuation process kinetics of each targeted constituent. The time for complete distribution of the injected materials throughout the treatment area is also variable.
Hydraulic Containment ("Pump and Treat")	Moderate. Proven approach, and supplemental installation of extraction wells/trenches is fairly straightforward. The extracted groundwater may potentially require an above-ground treatment system. A variety of sorption and precipitation approaches exist for ex-situ treatment of Co and Mo. Operation and maintenance (O&M) requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Moderate. The main potential impacts are related to the presence and operation of an on-site above-ground water treatment facility and related infrastructure to convey and treat extracted groundwater. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone.	Installation of extraction wells and/or trenches can be accomplished relatively quickly (1 to 2 months). However, additional aquifer testing, system design and installation, and permit approval may be required, which may take up to 24 months. The initiation of the approach would be contingent on the start-up of the wastewater treatment infrastructure. Hydraulic containment can be achieved relatively quickly after startup of the extraction system, but uncertainty exists with respect to the time to achieve GWPS without additional data collection to better understand attenuation mechanisms for Co and Mo.
Monitored Natural Attenuation (MNA)	Reasonably implementable with respect to infrastructure, but moderate to complex with respect to documentation. Proven approach, but additional data are needed to show that the existing attenuation capacity is sufficient to meet site objectives within a reasonable timeframe. A monitoring well network already exists to implement future groundwater monitoring efforts.	None. MNA relies on the natural processes active in the aquifer matrix to reduce constituent concentrations without disturbing the surface or the subsurface.	The infrastructure to initiate MNA is already in place. Demonstrating attenuation mechanisms and capacity can be time-consuming and can take up to 24 months. MNA is expected to be successful within a reasonable time frame following pond closure. Engineering measures will be implemented during closure of AP-1 to minimize potential impacts to the subsurface during closure activities and routine groundwater monitoring will be used to verify that groundwater impacts remain stable or decrease over time.
Permeable Reactive Barrier	Moderate to difficult. Trenching would be required to install a mix of reactive materials in the subsurface. Continuous trenching may be the most feasible construction method. Site-specific geology (i.e., partially weathered bedrock layer) poses a possible constructability challenge when attempting to key PRB material into competent bedrock. Installation methods and materials are readily available. Once installed, treatment will be passive and O&M requirements are minimal if replacement of the PRB is not necessary.	Minimal impacts are expected following the construction of the remedy. However, ZVI has the potential to create anaerobic conditions downgradient of the PRB wall that may mobilize redox-sensitive naturally-occurring constituents. These conditions need to be carefully monitored. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures.	Installation of a PRB can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, bench- and/or pilot-testing would be required to obtain design parameters prior to design and construction of the remedy, which may take up to 24 months. Once installed, the time to achieve GWPS downgradient of the PRB is anticipated to be relatively quick.
Phytoremediation / TreeWells	Reasonably implementable to moderate. Engineered approach has been proven effective, and specific depth zones can be targeted. Trees are installed as "tree wells" in a large diameter boring to get the roots deep enough to intercept impacted groundwater flow paths. Area must be clear of above- and below-ground structures (i.e., power lines). The system, once established (approximately three growing seasons), is a self-maintaining, sustainable remedial system that has no external energy requirements and little maintenance (i.e., efforts normally associated with landscaping).	Minimal impacts are expected. In fact, there are several positive impacts expected, including enhanced aesthetics, wildlife habitat, and limited energy consumption.	The design phase will require some groundwater modeling for optimal placement of the TreeWell units, which may take up to 6 months. Depending on the number of required units, the installation effort is expected to last several weeks. Hydraulic capture/control is expected approximately three years after planting and system performance is expected to further improve over time.
Subsurface Vertical Barrier Walls	Moderate to difficult. Trenching will be required to fill in the various slurry mixes; alternatively, sheet pile installations can be accomplished without excavation of trenches. The application of barrier walls is limited by the depth of installation, which similar to PRBs, should be keyed into a low permeability layer such as a thick clay layer or bedrock. Installation methods and materials are readily available. Once installed, above-ground infrastructure to pump and treat groundwater will be required. O&M requirements are expected to include upkeep of infrastructure components (pumps, pipes, tanks, instrumentation and controls, above-ground treatment system) and handling of treatment residuals.	Minimal impacts are expected following the construction of the remedy. Short-term impacts during the construction of the remedy can be mitigated through appropriate planning and health and safety measures. Changes to groundwater flow patterns due to installation of the barrier wall are expected, which can affect other aspects of groundwater corrective action. Pumping activity may unintentionally alter the geochemistry within the hydraulic capture zone that may result in the mobilization of other constituents that may require treatment.	Installation of a barrier wall can be accomplished relatively quickly (6 to 12 months), depending on the final location and configuration. However, some design phase and additional aquifer and compatibility testing will be required, which may take up to 24 months. Once installed, preventing migration of constituents dissolved in groundwater is anticipated to be relatively quick. Since this approach does not treat the downgradient area of impacted groundwater but prevents migration from a source area, it will likely have to be maintained long-term and coupled with other approaches.

Table 1
Evaluation of Remedial Technologies
Plant Bowen AP-1, Bartow County, Georgia

Corrective Measure	40 CFR 257.96(C)(3)		Relative Costs
	Institutional Requirements	Other Env or Public Health Requirements	
Geochemical Approaches (In-Situ Injection)	Deed restrictions may be necessary until in-situ treatment has achieved GWPS. A new UIC permit (for in-situ injections) would be required to implement this corrective measure. No other institutional requirements are expected at this time.	None expected at this point. Based on downgradient sampling results near adjacent water features, there currently are no complete exposure pathways for potential receptors downgradient of AP-1. Potential mobilization of redox-sensitive constituents exists during implementation of an anaerobic attenuation approach. Following installation, the remedy is passive.	Medium (depending on expanse of injection network required and injectate volume required per derived design parameters)
Hydraulic Containment ("Pump and Treat")	Depending on the effluent management strategy, modifications to the existing NPDES permit may be required, or obtaining a new underground injection control (UIC) permit may be needed if groundwater reinjection is chosen. In addition, deed restrictions may be required as long as groundwater conditions are above regulatory standards for unrestricted use.	Based on downgradient sampling results near adjacent water features, there currently are no complete exposure pathways for potential receptors downgradient of AP-1. Above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on remedy duration, complexity of above-ground treatment system, and volume of water processed)
Monitored Natural Attenuation (MNA)	MNA may require the implementation of institutional controls, such as deed restrictions, to preclude potential exposure to groundwater within the footprint of impacted groundwater until GWPS are achieved.	Little to no physical disruption to remediation areas and no adverse construction-related impacts are expected on the surrounding community. Based on downgradient sampling results near adjacent water features, there currently are no complete exposure pathways for potential receptors downgradient of AP-1.	Low to medium
Permeable Reactive Barrier	Deed restrictions may be necessary for groundwater areas upgradient of the PRB (if not installed along the waste boundary). No other institutional requirements are expected at this time.	None expected at this point. Based on downgradient sampling results near adjacent water features, there currently are no complete exposure pathways for potential receptors downgradient of AP-1. Following installation, the remedy is passive. However, certain treatment media (such as ZVI) have the potential to mobilize naturally-occurring constituents downgradient of the PRB.	Medium to high (for installation) - minimal O&M requirements if replacement is not necessary
Phytoremediation / TreeWells	Deed restrictions may be necessary for groundwater areas upgradient of the TreeWell system. No other institutional requirements are expected at this time.	None expected at this point. Based on downgradient sampling results near adjacent water features, there currently are no complete exposure pathways for potential receptors downgradient of AP-1. Innovative and green technology may be positively received by various stakeholders. Following installation, the remedy is passive and does not require external energy.	Medium (for installation) - minimal O&M requirements
Subsurface Vertical Barrier Walls	Deed restrictions may be necessary for groundwater areas downgradient of the barrier wall until remedial goals are met. No other institutional requirements are expected at this time.	Based on downgradient sampling results near adjacent water features, there currently are no complete exposure pathways for potential receptors downgradient of AP-1. Due to the need for groundwater extraction associated with barrier walls, above-ground treatment components may need to be present for an extended period of time, generating residuals requiring management and disposal.	Medium to high (depending on length and depth of wall, remedy duration and complexity of above-ground treatment system)

Table 2
Summary of Activity
Plant Bowen AP-1, Bartow County, Georgia

Corrective Measure (CM)	Data Collected/Actions Completed	Applicable Locations Sampled	Applicability & Rationale	Comments/Planned Actions
Geochemical Approaches (In-Situ Injection)	Collected supplementary groundwater samples to evaluate: (i) attenuation mechanisms and rates and aquifer capacity for attenuation; and (ii) amount and distribution of select geochemical parameters (including Fe, Mn, DOC and other ligands) that may affect geochemical mechanisms.	BGWA-6, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-30, BGWC-31, BGWC-32	Understand geochemical baseline conditions to evaluate the need for and type of geochemical amendments required to attenuate constituents of interest.	(i) Collect and submit aquifer solid samples for sequential extraction procedure (SEP) for analysis of cobalt (Co) ⁽¹⁾ and molybdenum (Mo) in the aquifer solid matrix; x-ray diffraction (XRD) analysis for mineralogy; total Co ⁽¹⁾ , Mo, aluminum, iron, manganese, silica concentrations; cation/anion exchange capacity. (ii) Conduct pneumatic slug tests to evaluate aquifer transmissivity, storage coefficient, hydraulic conductivity in support of conducting injections.
Hydraulic Containment	Collected supplementary groundwater samples to evaluate groundwater parameters specific to the existing NPDES permitted discharge limits and capabilities of on-site low volume wastewater treatment plant (LVWTP)	BGWC-22, BGWC-23, BGWC-30	Evaluate groundwater concentrations relative to permitted discharge limits for the plant in support of processing/discharging extracted groundwater. Determine if a permit update is required to address potentially new groundwater-specific parameters.	Conduct pneumatic slug tests to evaluate aquifer transmissivity, storage coefficient, hydraulic conductivity in support of designing a groundwater extraction system.
Monitored Natural Attenuation (MNA)	Collected supplementary groundwater samples both upgradient and downgradient of unit to evaluate in situ attenuation mechanisms and rates and aquifer capacity for attenuation	BGWA-2, BGWA-6, BGWA-29, BGWC-19, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-24, BGWC-25, BGWC-30, BGWC-31, BGWC-32	Evaluate attenuation mechanisms and rates and aquifer capacity for attenuation. Multiple sampling events required to build adequate data set for determining attenuation mechanism trends.	(i) Continue to conduct supplementary groundwater sampling events during pre-closure and closure phase activities to assess plume stability and attenuation mechanisms. (ii) Collect and submit aquifer solid samples for SEP for analysis of Co ⁽¹⁾ and Mo in the aquifer solid matrix; XRD analysis for mineralogy; total Co ⁽¹⁾ , Mo, aluminum, iron, manganese, silica concentrations; cation/anion exchange capacity.
Permeable Reactive Barrier (PRB)	Collected supplementary groundwater samples to evaluate attenuation mechanisms and rates and aquifer capacity for attenuation applicable to evaluating reactive media options	BGWA-6, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-30, BGWC-31, BGWC-32	Evaluate in situ geochemical conditions and attenuation mechanisms that need to be considered when evaluating reactive media and initial design of a bench-scale treatability study.	(i) Initial identification of possible PRB reactive media based on current dataset, with refinement pending review of subsequent geochemical and aquifer attenuation data. (ii) Conduct pneumatic slug tests to evaluate aquifer transmissivity, storage coefficient, hydraulic conductivity in support of designing a groundwater extraction system.
Phytoremediation (<i>TreeWells</i> ®)	Collected supplementary groundwater samples to evaluate in situ geochemical conditions and plant nutrient levels needed to establish phytoremediation measures (<i>TreeWells</i> ®) downgradient of unit	BGWC-22, BGWC-23, BGWC-30	Careful design will be needed to select the proper species, which will include consideration of groundwater chemistry, plant uptake of constituents, and groundwater flow modeling to evaluate the required number and placement of <i>TreeWell</i> ® units.	(i) Conduct pneumatic slug tests to evaluate aquifer transmissivity, storage coefficient, hydraulic conductivity in support of developing a groundwater flow model to assess placement of <i>TreeWell</i> ® units. (ii) Continue to conduct supplementary groundwater sampling events to evaluate seasonal fluctuations in groundwater chemistry and plant nutrient levels.
Subsurface Vertical Barrier Walls	Collected supplementary groundwater samples to evaluate groundwater parameters specific to the existing NPDES permitted discharge limits, since limited pumping (and discharge) of groundwater will be required to maintain an inward hydraulic gradient inside/upgradient of the vertical barrier.	BGWC-22, BGWC-23, BGWC-30	Evaluate groundwater concentrations relative to permitted discharge limits for the plant in support of processing/discharging extracted groundwater. Determine if a permit update is required to address potentially new groundwater-specific parameters.	(i) Conduct pneumatic slug tests to evaluate aquifer transmissivity, storage coefficient, hydraulic conductivity in support of developing a groundwater flow model to assess placement of barrier walls, most likely in conjunction with PRBs, and placement of possible groundwater extraction system to maintain designed hydraulic gradients. (ii) Evaluate resources needed to conduct a bench compatibility test of barrier wall material.

Note:

(1) Alternate Source Demonstration prepared to address the statistically significant levels (SSLs) of Co identified within groundwater. Pending GA EPD approval, it may not be necessary to analyze for Co for the proposed action.

Table 3a
Summary of Groundwater Analytical Data - Geochemical Parameter Evaluation
Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWA-2	BGWA-29	BGWC-7	BGWC-8	BGWC-9	BGWC-10	BGWC-12	BGWC-14	BGWC-16
Sample Date:	9/23/2019	9/23/2019	9/24/2019	9/24/2019	9/24/2019	9/25/2019	9/25/2019	9/25/2019	9/26/2019
Parameter									
Alkalinity, Bicarbonate (CaCO ₃)	177	107	276	143	215	162	144	209	147
Alkalinity, Total as CaCO ₃	177	107	276	143	215	162	144	209	147
Dissolved Organic Carbon	ND (0.51 J)	ND (0.57 J)	ND	ND (0.55 J)	1.3	ND (0.78 J)	ND	ND (0.66 J)	ND (0.54 J)
Iron	ND (0.035 J)	ND	1.1	ND (0.028 J)	0.60	0.54	0.082	ND (0.032 J)	0.13
Magnesium	20.6	11.8	42.2	14.7	24.0	27.3	48.7	43.4	28.5
Manganese	0.11	ND	0.033	ND	0.12	0.065	ND (0.0024 J)	0.016	3.3
Orthophosphate as P	ND	ND	--	--	--	--	ND	ND	ND
Phosphorous	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium	1.8	ND (0.69 J)	ND (2.4 J)	2.5	2.7	2.0	2.5	2.8	4.0
Sodium	4.3	6.8	17.8	4.5	24.0	20.1	24.7	22.7	21.6
Sulfide	ND	ND	--	--	--	--	ND	ND	ND

Notes:

-- = Parameter was not analyzed

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

(1) Well is designated a delineation monitoring well.

(2) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

(3) Parameters are reported in units of milligrams per liter (mg/L).

Table 3a
Summary of Groundwater Analytical Data - Geochemical Parameter Evaluation
Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21	BGWC-22	BGWC-23	BGWC-24	BGWC-25
Sample Date:	9/26/2019	9/26/2019	9/26/2019	9/26/2019	9/30/2019	9/27/2019	9/27/2019	9/30/2019	9/30/2019
Parameter									
Alkalinity, Bicarbonate (CaCO ₃)	118	160	164	92.0	162	72.0	96	155	218
Alkalinity, Total as CaCO ₃	118	160	164	92.0	162	72.0	96	155	218
Dissolved Organic Carbon	ND	ND (0.67 J)	ND (0.76 J)	ND	ND	ND	ND	ND (0.96 J)	ND
Iron	ND (0.0097 J)	ND (0.0094 J)	ND	0.19	0.080	0.46	0.32	ND (0.010 J)	0.36
Magnesium	30.6	27.0	30.4	41.7	27.4	95.5	120	186	24.4
Manganese	0.16	0.048	0.23	0.40	0.052	6.8	0.52	5.5	0.29
Orthophosphate as P	ND	ND	ND	ND	ND	ND	ND	0.81	ND
Phosphorous	ND	ND	ND	ND	ND	ND	ND	0.43	ND
Potassium	3.3	2.0	2.8	5.7	1.5	14.9	10.1	11.4	ND (0.84 J)
Sodium	17.0	7.6	5.9	26.0	2.4	47.2	41.2	31.7	ND (1.5 J)
Sulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

-- = Parameter was not analyzed

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

(1) Well is designated a delineation monitoring well.

(2) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

(3) Parameters are reported in units of milligrams per liter (mg/L).

Table 3a
 Summary of Groundwater Analytical Data - Geochemical Parameter Evaluation
 Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWC-30	BGWA-6 ⁽¹⁾	BGWA-33 ⁽²⁾	BGWC-31 ⁽¹⁾	BGWC-32 ⁽¹⁾	BGWC-34D ⁽¹⁾	BGWC-35D ⁽¹⁾	BGWC-36D ⁽¹⁾
Sample Date:	9/27/2019	9/23/2019	9/27/2019	9/24/2019	9/26/2019	9/24/2019	9/26/2019	9/27/2019
Parameter								
Alkalinity, Bicarbonate (CaCO ₃)	171	258	230	184	172	253	112	153
Alkalinity, Total as CaCO ₃	171	258	230	184	172	253	112	153
Dissolved Organic Carbon	ND	ND	--	1.3	ND (0.62 J)	2.1	ND	ND (0.56 J)
Iron	0.11	ND (0.031 J)	ND (0.033 J)	2.0	0.065	0.70	0.97	0.19
Magnesium	34.1	35.5	31.6	36.7	61.1	31.9	92.2	59.8
Manganese	0.0076	0.017	0.014	0.17	0.26	0.024	0.12	0.14
Orthophosphate as P	ND	ND	--	ND	ND	--	ND	ND
Phosphorous	ND	ND	ND	0.053	ND	ND	ND	ND
Potassium	3.0	ND (0.51 J)	1.8	1.2	5.2	1.8	8.3	4.7
Sodium	8.2	2.2	2.1	8.8	20.9	5.7	51.1	26.2
Sulfide	ND	ND	--	ND	ND	--	ND	ND

Notes:

-- = Parameter was not analyzed

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

(1) Well is designated a delineation monitoring well.

(2) Well BGWA-33 serves as a characterization well unassociated with the delineation monitoring well network.

(3) Parameters are reported in units of milligrams per liter (mg/L).

Table 3b
 Summary of Groundwater Analytical Data - Agronomic Parameter Evaluation
 Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWC-22	BGWC-23	BGWC-30
Sample Date:	9/27/2019	9/27/2019	9/27/2019
Parameter			
Nitrogen, Ammonia	1.4	0.63	ND
Copper	ND	ND	ND
Nitrate as N	ND	0.076	1.0
Nitrite as N	ND	ND	ND
Total Dissolved Solids	3260	2540	629
Total Hardness as CaCO ₃ (SM 2340B)	2240	2060000	430000
Zinc	ND (0.0040 J)	ND (0.0023 J)	ND (0.0020 J)

Notes:

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

(1) Parameters are reported in units of milligrams per liter (mg/L).

Table 3c
 Summary of Groundwater Analytical Data - NPDES Compliance Evaluation
 Plant Bowen AP-1, Bartow County, Georgia

Well ID:	BGWC-22	BGWC-30
Sample Date:	9/27/2019	9/27/2019
Parameter		
Nitrogen, Ammonia	1.4	ND
BOD, 5 day	ND	ND
Lead	ND (0.000054 J)	ND (0.00018 J)
Mercury	ND	ND
Oil and Grease	ND	ND
Total Kjeldahl Nitrogen	1.2	ND
Total Organic Nitrogen	ND	ND
Total Suspended Solids	13.0	8.0

Notes:

J = Indicates the parameter was estimated and detected between the method detection limit (MDL) and the reporting limit (RL)

ND = Indicates the parameter was not detected above the analytical MDL

NPDES = National Pollutant Discharge Elimination System

(1) Parameters are reported in units of milligrams per liter (mg/L).

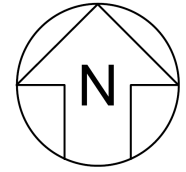
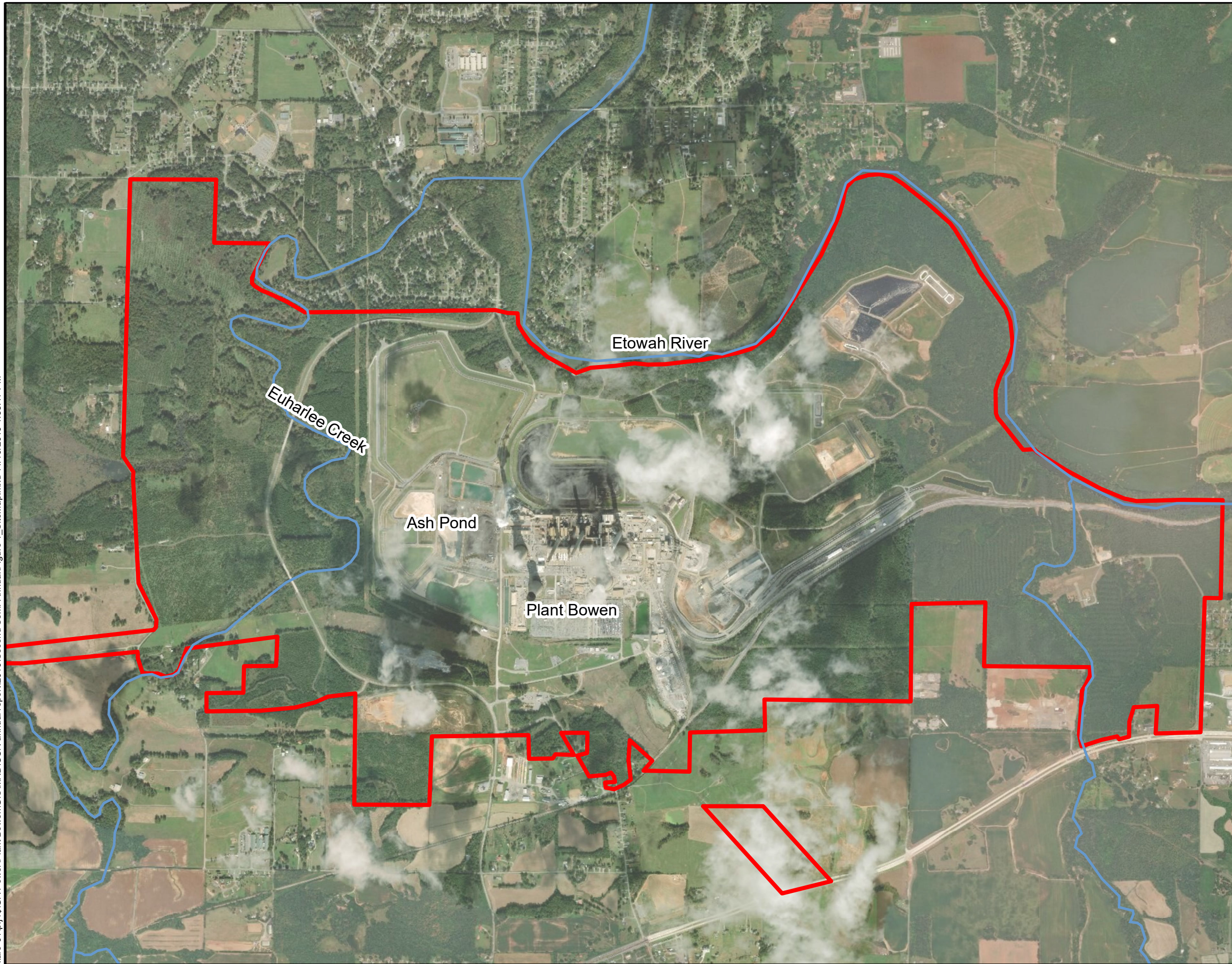
Table 4
Proposed ACM Supplementary Data Collection Tasks for First Semi-Annual Period 2020
Plant Bowen AP-1, Bartow County, Georgia

Data Collection Event	Applicable CMs ⁽¹⁾	Applicability/Rationale	Field Component	Parameters of Interest (POI)	Analytical Lab Performing Analysis
Groundwater sampling	3, 4, 5	Evaluation of: (i) attenuation mechanisms and rates and aquifer capacity for attenuation (ii) in situ conditions to establish phytoremediation measures downgradient of unit	Collect groundwater samples from existing well network currently sampled under the assessment monitoring program.	<u>In addition to routine App III/IV parameters:</u> orthophosphate, phosphorous, sulfide, iron, manganese, magnesium, sodium, potassium, total alkalinity, bicarbonate, dissolved organic carbon (DOC), nitrate/nitrite, total hardness, zinc, total dissolved solids, copper, ammonia nitrogen.	Pace-ATL
Aquifer solids sampling (Collect/Submit archived rock cores)	1, 3, 4	Evaluation of within aquifer matrix: (i) attenuation mechanisms and rates and aquifer capacity for attenuation (ii) mineralogy characterization	Collect samples from extracted rock cores archived at the SCS Civil Field Services (CFS) Logan Martin, AL, facility.	Sequential extraction procedure (SEP) for analysis of cobalt (Co) and molybdenum (Mo) to characterize Co and Mo in the aquifer solid matrix; x-ray diffraction (XRD) analysis for mineralogy; total Co, Mo, aluminum, iron, manganese, silica concentrations; cation/anion exchange capacity	TestAmerica-Canton; TestAmerica-Knoxville (SEP); DCM Science Lab (XRD)
Aquifer solids sampling	1, 3, 4	Evaluation of within aquifer matrix: (i) attenuation mechanisms and rates and aquifer capacity for attenuation (ii) mineralogy characterization	Collect unconsolidated aquifer solid material from the alluvium, residuum, and/or highly weathered rock zones using a DPT rig (3-4 locations downgradient and 1-2 background locations).	SEP for analysis of Co and Mo to characterize Co and Mo in the aquifer solid matrix; XRD analysis for mineralogy; total Co, Mo, aluminum, iron, manganese, silica concentrations; cation/anion exchange capacity	TestAmerica-Canton; TestAmerica-Knoxville (SEP); DCM Science Lab (XRD)
Pneumatic slug tests	1, 2, 4, 5, 6	Refine our understanding of hydrogeologic conditions within the anticipated treatment area. Slug data will be used in conjunction with groundwater data to prepare a groundwater flow model that evaluates conceptual CM designs.	Conduct pneumatic slug tests in select wells either not previously tested or in those wells for which historical data may be in question.	Transmissivity, storage coefficient, hydraulic conductivity	n/a



Note:
(1) Corrective Measure (CM) Codes:
1 - Geochemical Approaches (In-Situ Injection)
2 - Hydraulic Containment
3 - Monitored Natural Attenuation (MNA)
4 - Permeable Reactive Barrier (PRB)
5 - Phytoremediation (TreeWells®)
6 - Subsurface Vertical Barrier Walls

FIGURES

\\laro-01\proj\GA Power\Plant Bowen\GIS\MXD\CCR annual report\2019\Second Semi-Annual\Figure 1_SiteMap.mxd 11/19/2019 1:33:17 PM

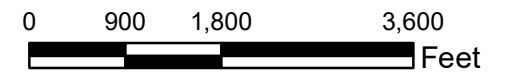


LEGEND

-  Approximate Site Boundary
-  River or Stream



Notes:
 1. Aerial photograph source: USDA FSA, 2015.



SITE LOCATION MAP

GEORGIA POWER COMPANY
 PLANT BOWEN AP-1
 BARTOW COUNTY, GEORGIA

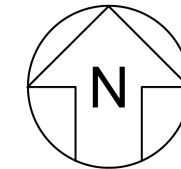
Prepared For:  Georgia Power

Prepared By:  Geosyntec
 consultants

KENNESAW, GA DECEMBER 2019

FIGURE
1

\\laro-01\proj\GA Power\Plant Bowen\GIS\MXD\CCR annual report\2019\Second Semi-Annual\Figure 2_WellMap.mxd 1/11/2020 1:55:32 AM



- LEGEND**
- ⊕ Compliance Monitoring Well
 - ⊕ Delineation Monitoring Well
 - ⊕ Characterization Monitoring Well
 - ⊕ Groundwater Level Monitoring Piezometer



- Notes:**
1. All wells and piezometers presented are screened within the weathered fractured bedrock.
 2. Aerial photograph source: Google Earth Pro, February 2018.



MONITORING WELL NETWORK MAP

GEORGIA POWER COMPANY
PLANT BOWEN AP-1
BARTOW COUNTY, GEORGIA

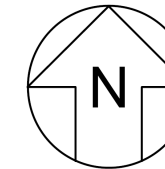
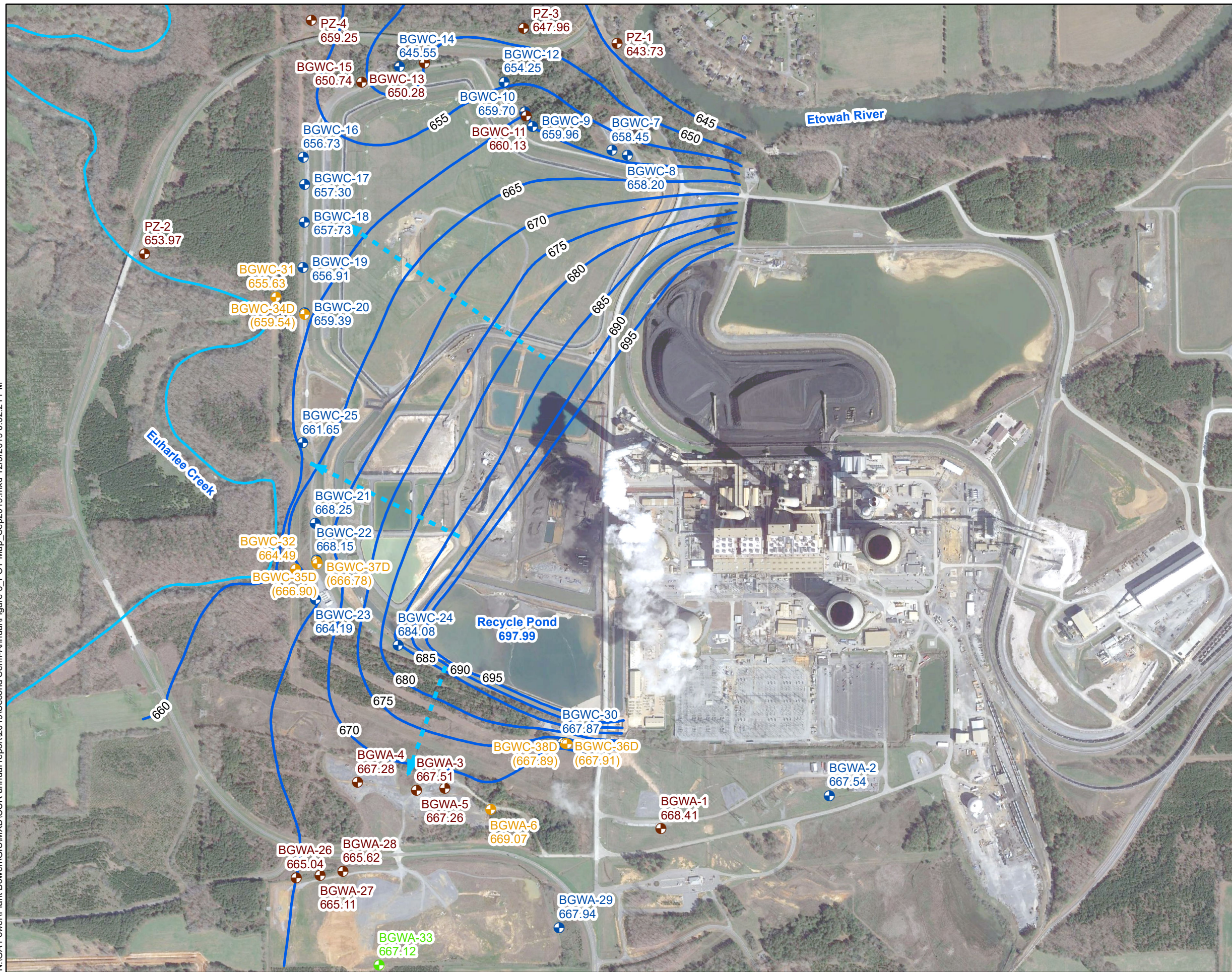
Prepared For: Georgia Power

Prepared By: Geosyntec
consultants

KENNESAW, GA JANUARY 2020

FIGURE
2

N:\GA Power\Plant Bowen\GIS\MXD\ICCR annual report\2019\Second Semi-Annual\Figure 5_POT Map_Sep2019.mxd 12/5/2019 6:32:21 PM

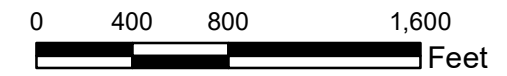


LEGEND

- ⊕ Compliance Monitoring Well
- ⊕ Delineation Monitoring Well
- ⊕ Characterization Monitoring Well
- ⊕ Groundwater Level Monitoring Piezometer
- ➔ Approximate Groundwater Flow Direction



- Notes:**
1. Water level elevations recorded on September 19, 2019. Elevation provided in feet above mean sea level (ft AMSL) in North American Vertical Datum (NAVD) 88. RecyclePond elevation recorded in October 2019
 2. Water elevation in parentheses is not used in development of groundwater contours due to well being screened at a different elevation in the formation/aquifer.
 3. Aerial photograph source: Google Earth Pro, 2017.



POTENTIOMETRIC SURFACE CONTOUR MAP - SEPTEMBER 2019

GEORGIA POWER COMPANY
PLANT BOWEN AP-1
BARTOW COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

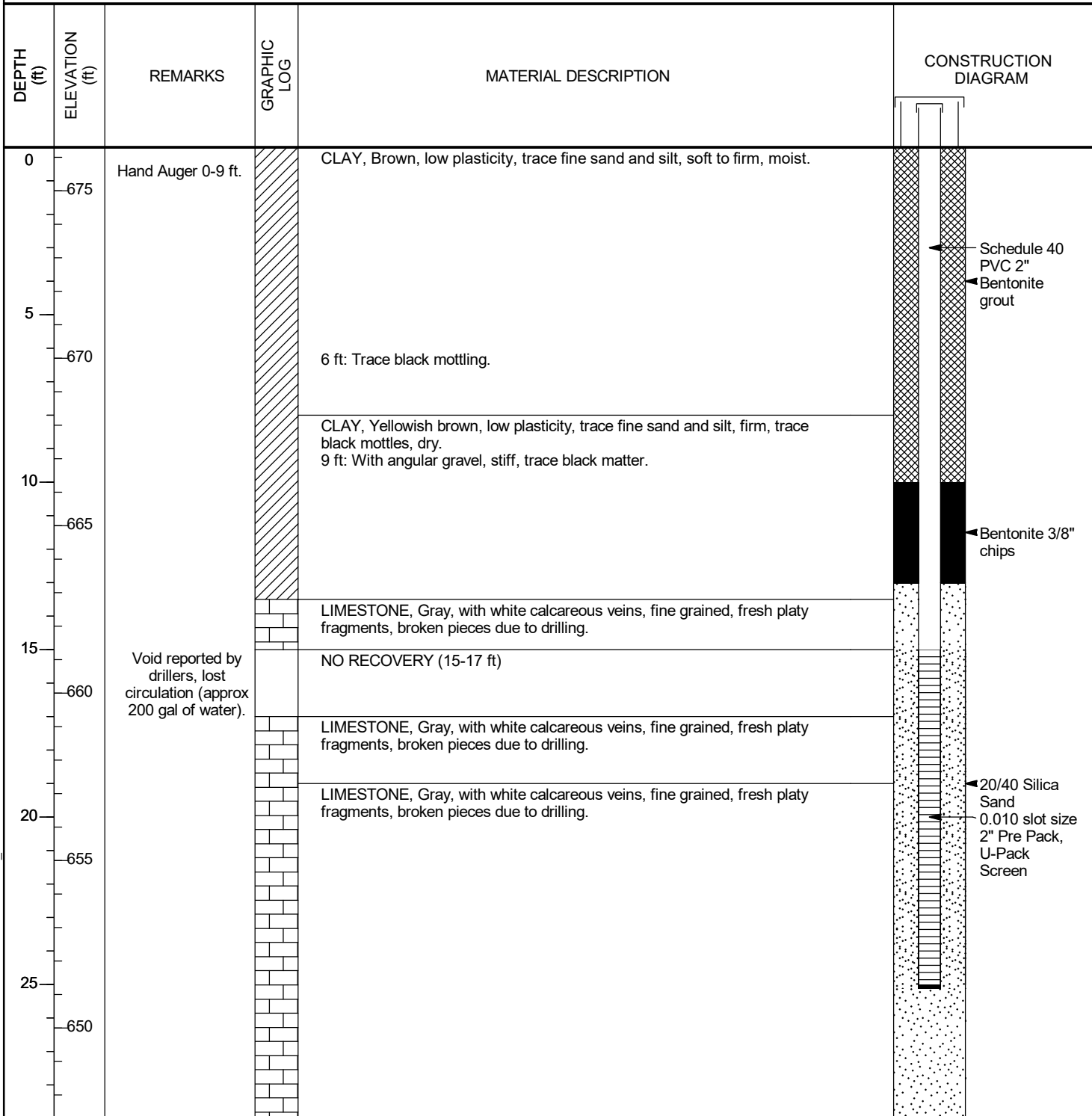
FIGURE
3

KENNESAW, GA DECEMBER 2019

APPENDIX A

Boring and Well Construction Log – BGWC-39

CLIENT <u>Southern Company Services</u>	PROJECT NAME <u>Groundwater SRV-AP1</u>
PROJECT NUMBER <u>GW6581C</u>	PROJECT LOCATION <u>Euharlee, GA</u>
DATE STARTED <u>12/5/19</u> COMPLETED <u>12/6/19</u>	NORTHING <u>1501240.843 ft</u> EASTING <u>2064095.033 ft</u>
DRILLER <u>Cascade Drilling</u>	GROUND ELEVATION <u>676.3 ft</u> BORING DIAMETER <u>6 in</u>
DRILLING METHOD <u>Sonic</u>	TOP OF CASING ELEVATION <u>679.28 ft</u>
SAMPLING METHOD <u>4" core 6" override</u>	GEOPHYSICAL CONTRACTOR <u>---</u>
RIG TYPE <u>1051181 Compact Crawler</u>	LOGGED BY <u>N.Tilahun</u> CHECKED BY <u>J. Ivanowski</u>



Bottom of borehole at 29.0 feet.

SCS MONITORING WELLS BGWC39 AND BGWC40 DECEMBER 2019.GPJ ACP GINT LIBRARY CH.GLB 12/23/19

APPENDIX B

Laboratory Analytical Reports

APPENDIX A

Laboratory Analytical Reports

October 21, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623563

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623563

Atlanta Certification IDs

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

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623563

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623563001	BGWA-2	Water	09/23/19 09:54	09/24/19 15:23
2623563002	BGWA-29	Water	09/23/19 10:22	09/24/19 15:23
2623563003	BGWA-6	Water	09/23/19 11:34	09/24/19 15:23
2623563004	DUP-1	Water	09/23/19 00:00	09/24/19 15:23

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623563

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623563001	BGWA-2	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623563002	BGWA-29	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623563003	BGWA-6	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623563004	DUP-1	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623563

Sample: BGWA-2		Lab ID: 2623563001		Collected: 09/23/19 09:54	Received: 09/24/19 15:23	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	0.035J	mg/L	0.040	0.0092	1	10/09/19 03:36	10/09/19 23:07	7439-89-6	
Magnesium	20.6	mg/L	0.50	0.084	1	10/09/19 03:36	10/09/19 23:07	7439-95-4	
Manganese	0.11	mg/L	0.0050	0.00042	1	10/09/19 03:36	10/09/19 23:07	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/09/19 03:36	10/09/19 23:07	7723-14-0	N2
Potassium	1.8	mg/L	1.0	0.15	1	10/09/19 03:36	10/09/19 23:07	7440-09-7	
Sodium	4.3	mg/L	2.0	0.27	1	10/09/19 03:36	10/09/19 23:07	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	177	mg/L	20.0	20.0	1		09/30/19 14:41		
Alkalinity, Total as CaCO ₃	177	mg/L	20.0	20.0	1		09/30/19 14:41		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	0.51J	mg/L	1.0	0.50	1		09/28/19 05:18		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623563

Sample: BGWA-29		Lab ID: 2623563002		Collected: 09/23/19 10:22	Received: 09/24/19 15:23	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	ND	mg/L	0.040	0.0092	1	10/09/19 03:36	10/09/19 23:26	7439-89-6		
Magnesium	11.8	mg/L	0.50	0.084	1	10/09/19 03:36	10/09/19 23:26	7439-95-4		
Manganese	ND	mg/L	0.0050	0.00042	1	10/09/19 03:36	10/09/19 23:26	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/09/19 03:36	10/09/19 23:26	7723-14-0	N2	
Potassium	0.69J	mg/L	1.0	0.15	1	10/09/19 03:36	10/09/19 23:26	7440-09-7		
Sodium	6.8	mg/L	2.0	0.27	1	10/09/19 03:36	10/09/19 23:26	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	107	mg/L	20.0	20.0	1		09/30/19 14:56			
Alkalinity, Total as CaCO ₃	107	mg/L	20.0	20.0	1		09/30/19 14:56			
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	0.57J	mg/L	1.0	0.50	1		09/28/19 05:34			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623563

Sample: BGWA-6		Lab ID: 2623563003		Collected: 09/23/19 11:34	Received: 09/24/19 15:23	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	0.031J	mg/L	0.040	0.0092	1	10/09/19 03:36	10/09/19 23:40	7439-89-6	
Magnesium	35.5	mg/L	0.50	0.084	1	10/09/19 03:36	10/09/19 23:40	7439-95-4	
Manganese	0.017	mg/L	0.0050	0.00042	1	10/09/19 03:36	10/09/19 23:40	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/09/19 03:36	10/09/19 23:40	7723-14-0	N2
Potassium	0.51J	mg/L	1.0	0.15	1	10/09/19 03:36	10/09/19 23:40	7440-09-7	
Sodium	2.2	mg/L	2.0	0.27	1	10/09/19 03:36	10/09/19 23:40	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	258	mg/L	20.0	20.0	1		09/30/19 16:02		
Alkalinity, Total as CaCO ₃	258	mg/L	20.0	20.0	1		09/30/19 16:02		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		09/28/19 05:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623563

Sample: DUP-1		Lab ID: 2623563004		Collected: 09/23/19 00:00	Received: 09/24/19 15:23	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	ND	mg/L	0.040	0.0092	1	10/09/19 03:36	10/09/19 23:45	7439-89-6		
Magnesium	11.9	mg/L	0.50	0.084	1	10/09/19 03:36	10/09/19 23:45	7439-95-4		
Manganese	ND	mg/L	0.0050	0.00042	1	10/09/19 03:36	10/09/19 23:45	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/09/19 03:36	10/09/19 23:45	7723-14-0	N2	
Potassium	0.68J	mg/L	1.0	0.15	1	10/09/19 03:36	10/09/19 23:45	7440-09-7		
Sodium	6.7	mg/L	2.0	0.27	1	10/09/19 03:36	10/09/19 23:45	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	107	mg/L	20.0	20.0	1		09/30/19 16:10			
Alkalinity, Total as CaCO ₃	107	mg/L	20.0	20.0	1		09/30/19 16:10			
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		09/28/19 05:05			

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623563

QC Batch: 576752 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2623563001, 2623563002, 2623563003, 2623563004

METHOD BLANK: 3134868 Matrix: Water
Associated Lab Samples: 2623563001, 2623563002, 2623563003, 2623563004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/09/19 22:58	
Magnesium	mg/L	ND	0.50	0.084	10/09/19 22:58	
Manganese	mg/L	ND	0.0050	0.00042	10/09/19 22:58	
Phosphorus	mg/L	ND	0.045	0.014	10/09/19 22:58	N2
Potassium	mg/L	ND	1.0	0.15	10/09/19 22:58	
Sodium	mg/L	ND	2.0	0.27	10/09/19 22:58	

LABORATORY CONTROL SAMPLE: 3134869

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.6	104	80-120	
Magnesium	mg/L	12.5	12.9	103	80-120	
Manganese	mg/L	0.25	0.26	105	80-120	
Phosphorus	mg/L	0.25	0.25	99	80-120	N2
Potassium	mg/L	12.5	12.8	103	80-120	
Sodium	mg/L	12.5	13.1	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3134870 3134871

Parameter	Units	35502582002 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MS Result						
Iron	mg/L	136 ug/L	2.5	2.5	2.5	2.7	103	104	75-125	0	20	
Magnesium	mg/L	3120 ug/L	12.5	12.5	12.5	15.7	100	100	75-125	0	20	
Manganese	mg/L	25.8 ug/L	0.25	0.25	0.25	0.29	106	106	75-125	0	20	
Phosphorus	mg/L	33.5J ug/L	0.25	0.25	0.25	0.30	104	108	75-125	3	20	N2
Potassium	mg/L	3350 ug/L	12.5	12.5	12.5	16.6	105	106	75-125	1	20	
Sodium	mg/L	12300 ug/L	12.5	12.5	12.5	25.5	106	104	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 Bowen Ash Pond
Pace Project No.: 2623563

QC Batch: 36180 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623563001, 2623563002, 2623563003, 2623563004

METHOD BLANK: 163383 Matrix: Water
Associated Lab Samples: 2623563001, 2623563002, 2623563003, 2623563004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	20.0	20.0	09/30/19 14:21	

LABORATORY CONTROL SAMPLE: 163384

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	100	100	100	85-115	

SAMPLE DUPLICATE: 163385

Parameter	Units	2623563001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	177	174	2	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623563

QC Batch: 573872 Analysis Method: SM 5310B
 QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
 Associated Lab Samples: 2623563001, 2623563002, 2623563003, 2623563004

METHOD BLANK: 3118689 Matrix: Water
 Associated Lab Samples: 2623563001, 2623563002, 2623563003, 2623563004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	09/28/19 04:35	

LABORATORY CONTROL SAMPLE: 3118690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	18.6	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3118694 3118695

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		35500243001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Dissolved Organic Carbon	mg/L	9.8	20	20	30.9	31.4	105	108	80-120	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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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623563

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-GA Pace Analytical Services - Atlanta, GA

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2623563

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623563001	BGWA-2	EPA 3010	576752	EPA 6010	576758
2623563002	BGWA-29	EPA 3010	576752	EPA 6010	576758
2623563003	BGWA-6	EPA 3010	576752	EPA 6010	576758
2623563004	DUP-1	EPA 3010	576752	EPA 6010	576758
2623563001	BGWA-2	SM 2320B	36180		
2623563002	BGWA-29	SM 2320B	36180		
2623563003	BGWA-6	SM 2320B	36180		
2623563004	DUP-1	SM 2320B	36180		
2623563001	BGWA-2	SM 5310B	573872		
2623563002	BGWA-29	SM 5310B	573872		
2623563003	BGWA-6	SM 5310B	573872		
2623563004	DUP-1	SM 5310B	573872		

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.

Page:) Of 1

Regulatory Agency

State / Location
GA

Section A
Requested Client Information:
Company: Georgia Power - Coal Combustion Residuals
Address: 2480 Manor Road
Atlanta, GA 30309
Phone: (404)508-7239
Email: jabraham@gepower.com
Requested Due Date:

Section B
Required Project Information:
Report To: Jaju Abraham
Copy To: Geeyahnee
Project Name:
Purchase Order #: SCS10392775
Plant Bowen Additional Parameters
Project #: Ash Pond

Section C
Invoice Information:
Attribution:
Company Name:
Address:
Phone Quote:
Pilot Project Manager: bobby.mcdaniel@gepower.com
Price Profile #: 315.5

ITEM #	MATRIX CODE (One character per box. (A-Z, 0-9, /, -) Sample IDs must be unique)	MATRIX TYPE (2-DIGIT CODE)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES		ANALYSES TEST Y/N	Requested Analysis Filtered (Y/N)											SAMPLE CONDITIONS																		
			START DATE	END DATE			UNPRESERVED	H2SO4		HNO3	HCl	NaOH	MASS200	Methanol	Other	Metals (6010)	Metals (6019/6020)	Ortho Phosphorus (Filtered)	Sulfide	Alkalinity, Bicarb		DOC (Filtered)	TDS, NO3, NO2	Ammonia	TiN	VBS	BOD	Oil Grease	Residual Chlorine (VAN)										
1	BGWA - 2	WT	9/23/19 10:54			4	1	2					X	X			X	X																					
2	BGWA - 29	WT	9/23/19 10:22			4	1	2					X	X			X	X																					
3	BGWA - 6	WT	9/23/19 11:34			4	1	2					X	X			X	X																					
4	DUP - 1	WT	9/23/19			4	1	2					X	X			X	X																					

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION: Audrey Crafton

ACCEPTED BY / AFFILIATION: Charles Cantor

DATE: 9/23/19

DATE: 9/23/19

SIGNATURE OF SAMPLER: Audrey Crafton

DATE SIGNED: 9/23/19

SAMPLER NAME AND SIGNATURE: Audrey Crafton, Joe Booth

PRINT Name of SAMPLER: Audrey Crafton

SIGNATURE OF SUPERVISOR: Audrey Crafton

DATE SIGNED: 9/23/19

Received on: 9/23/19

Received by (Name):

Temp in C: 28.7

Quantity (Y/N):

Quality (Y/N):

Control (Y/N):

Container (Y/N):

Labels (Y/N):

Samples (Y/N):

WO#: 2623563

2623563



Sample Condition Upon Receipt

WO#: 2623563

Client Name: GAPower CCR

PM: BM Due Date: 10/01/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Final Date: _____
Proj Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 214 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 218C Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 10/2/19/CC

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 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 19, 2019

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

RE: Project: Plant Bowen
Pace Project No.: 2623698

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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 was revised 10/22/19 to remove compounds not requested on the COC.

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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen
Pace Project No.: 2623698

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 Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Bowen

Pace Project No.: 2623698

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623698001	BGWC-22	Water	09/27/19 10:06	09/27/19 16:00
2623698002	BGWC-23	Water	09/27/19 11:45	09/27/19 16:00
2623698003	BGWC-30	Water	09/27/19 09:45	09/27/19 16:00
2623698004	BGWC-36D	Water	09/27/19 12:02	09/27/19 16:00
2623698005	BGWA-33	Water	09/27/19 13:08	09/27/19 16:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen
Pace Project No.: 2623698

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
2623698001	BGWC-22	EPA 6010	LEC	7	PASI-O		
		EPA 6020B	CSW	3	PASI-GA		
		EPA 7470A	DRB	1	PASI-GA		
		EPA 1664B	SJS	1	PASI-GA		
		SM 2320B	S1A	2	PASI-GA		
		SM 2540C	ALW	1	PASI-GA		
		SM 2540D	ALW	1	PASI-GA		
		SM 4500-P	JAD	1	PASI-GA		
		SM 4500-S2 D	KN	1	PASI-GA		
		SM 5210B	KN	1	PASI-GA		
		TKN-NH3 Calculation	LPH	1	PASI-GA		
		EPA 300.0	MWB	2	PASI-GA		
		EPA 350.1	ANB	1	PASI-GA		
		EPA 351.2	ANB	1	PASI-GA		
		SM 5310B	SA1	1	PASI-O		
2623698002	BGWC-23	EPA 6010	LEC	7	PASI-O		
		EPA 6020B	CSW	2	PASI-GA		
		SM 2320B	S1A	2	PASI-GA		
		SM 2540C	ALW	1	PASI-GA		
		SM 4500-P	JAD	1	PASI-GA		
		SM 4500-S2 D	KN	1	PASI-GA		
		EPA 300.0	MWB	2	PASI-GA		
		EPA 350.1	ANB	1	PASI-GA		
		SM 5310B	SA1	1	PASI-O		
		2623698003	BGWC-30	EPA 6010	LEC	7	PASI-O
				EPA 6020B	CSW	3	PASI-GA
				EPA 7470A	DRB	1	PASI-GA
				EPA 1664B	SJS	1	PASI-GA
				SM 2320B	S1A	2	PASI-GA
				SM 2540C	ALW	1	PASI-GA
SM 2540D	ALW			1	PASI-GA		
SM 4500-P	JAD			1	PASI-GA		
SM 4500-S2 D	KN			1	PASI-GA		
SM 5210B	KN			1	PASI-GA		
TKN-NH3 Calculation	LPH			1	PASI-GA		
EPA 300.0	MWB			2	PASI-GA		
EPA 350.1	ANB			1	PASI-GA		

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen

Pace Project No.: 2623698

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623698004	BGWC-36D	EPA 351.2	ANB	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
		EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
2623698005	BGWA-33	SM 5310B	SA1	1	PASI-O
		EPA 6010	KPP	6	PASI-O
		SM 2320B	S1A	2	PASI-GA

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623698

Sample: BGWC-22 Lab ID: 2623698001 Collected: 09/27/19 10:06 Received: 09/27/19 16:00 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	0.46	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 18:38	7439-89-6	
Magnesium	95.5	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 18:38	7439-95-4	
Manganese	6.8	mg/L	0.10	0.0084	20	10/08/19 14:00	10/09/19 18:43	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 18:38	7723-14-0	N2
Potassium	14.9	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 18:38	7440-09-7	
Sodium	47.2	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 18:38	7440-23-5	
Tot Hardness as CaCO ₃ (SM 2340B)	2240	mg/L	64.2	10.1	20	10/08/19 14:00	10/09/19 18:43		
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Copper	ND	mg/L	0.025	0.00019	1	09/30/19 13:30	10/03/19 17:05	7440-50-8	
Lead	0.000054J	mg/L	0.0050	0.000046	1	09/30/19 13:30	10/03/19 17:05	7439-92-1	
Zinc	0.0040J	mg/L	0.010	0.0015	1	09/30/19 13:30	10/03/19 17:05	7440-66-6	B
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:10	10/04/19 10:51	7439-97-6	
HEM, Oil and Grease Analytical Method: EPA 1664B									
Oil and Grease	ND	mg/L	4.9	4.9	1		10/02/19 08:00		
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Bicarbonate (CaCO ₃)	72.0	mg/L	20.0	20.0	1		10/01/19 18:37		
Alkalinity, Total as CaCO ₃	72.0	mg/L	20.0	20.0	1		10/01/19 18:37		
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	3260	mg/L	10.0	10.0	1		10/03/19 20:30		
2540D Total Suspended Solids Analytical Method: SM 2540D									
Total Suspended Solids	13.0	mg/L	5.0	5.0	1		09/30/19 12:16		
4500PE Ortho Phosphorus Analytical Method: SM 4500-P									
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 13:55		
4500S2D Sulfide Water Analytical Method: SM 4500-S2 D									
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 13:43	18496-25-8	M1
5210B BOD, 5 day Analytical Method: SM 5210B Preparation Method: SM 5210B									
BOD, 5 day	ND	mg/L	2.0	2.0	1	09/27/19 21:37	10/02/19 14:47		1A
Total Organic Nitrogen Calc. Analytical Method: TKN-NH ₃ Calculation									
Total Organic Nitrogen	ND	mg/L	0.40	0.40	1		10/07/19 23:42		
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	ND	mg/L	0.050	0.0050	1		09/28/19 09:55	14797-55-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen

Pace Project No.: 2623698

Sample: BGWC-22		Lab ID: 2623698001		Collected: 09/27/19 10:06	Received: 09/27/19 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions		Analytical Method: EPA 300.0							
Nitrite as N	ND	mg/L	0.050	0.011	1		09/28/19 09:55	14797-65-0	
350.1 Ammonia		Analytical Method: EPA 350.1							
Nitrogen, Ammonia	1.4	mg/L	0.10	0.10	1		09/30/19 11:26	7664-41-7	
351.2 Total Kjeldahl Nitrogen		Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	1.2	mg/L	0.40	0.40	1	10/01/19 09:05	10/01/19 13:12	7727-37-9	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 21:58		

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623698

Sample: BGWC-23 Lab ID: 2623698002 Collected: 09/27/19 11:45 Received: 09/27/19 16:00 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	0.32	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 18:57	7439-89-6	
Magnesium	120	mg/L	10.0	1.7	20	10/08/19 14:00	10/09/19 19:02	7439-95-4	
Manganese	0.52	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 18:57	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 18:57	7723-14-0	N2
Potassium	10.1	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 18:57	7440-09-7	
Sodium	41.2	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 18:57	7440-23-5	
Tot Hardness as CaCO ₃ (SM 2340B)	2060000	ug/L	64200	10100	20	10/08/19 14:00	10/09/19 19:02		
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Copper	ND	mg/L	0.025	0.00019	1	09/30/19 13:30	10/03/19 18:03	7440-50-8	
Zinc	0.0023J	mg/L	0.010	0.0015	1	09/30/19 13:30	10/03/19 18:03	7440-66-6	B
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Bicarbonate (CaCO ₃)	96.0	mg/L	20.0	20.0	1		10/01/19 18:39		
Alkalinity, Total as CaCO ₃	96.0	mg/L	20.0	20.0	1		10/01/19 18:39		
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	2540	mg/L	10.0	10.0	1		10/03/19 20:30		
4500PE Ortho Phosphorus Analytical Method: SM 4500-P									
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 13:55		
4500S2D Sulfide Water Analytical Method: SM 4500-S2 D									
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 13:47	18496-25-8	
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	0.076	mg/L	0.050	0.0050	1		09/28/19 10:15	14797-55-8	
Nitrite as N	ND	mg/L	0.050	0.011	1		09/28/19 10:15	14797-65-0	
350.1 Ammonia Analytical Method: EPA 350.1									
Nitrogen, Ammonia	0.63	mg/L	0.10	0.10	1		09/30/19 11:27	7664-41-7	
5310B Dissolved Organic Carbon Analytical Method: SM 5310B									
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 22:13		

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623698

Sample: BGWC-30 Lab ID: 2623698003 Collected: 09/27/19 09:45 Received: 09/27/19 16:00 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	0.11	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 19:07	7439-89-6	
Magnesium	34.1	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 19:07	7439-95-4	
Manganese	0.0076	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 19:07	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 19:07	7723-14-0	N2
Potassium	3.0	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 19:07	7440-09-7	
Sodium	8.2	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 19:07	7440-23-5	
Tot Hardness as CaCO ₃ (SM 2340B)	430000	ug/L	64200	10100	20	10/08/19 14:00	10/09/19 19:11		
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Copper	ND	mg/L	0.025	0.00019	1	09/30/19 13:30	10/03/19 18:14	7440-50-8	
Lead	0.00018J	mg/L	0.0050	0.000046	1	09/30/19 13:30	10/03/19 18:14	7439-92-1	
Zinc	0.0020J	mg/L	0.010	0.0015	1	09/30/19 13:30	10/03/19 18:14	7440-66-6	B
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:10	10/04/19 11:03	7439-97-6	
HEM, Oil and Grease Analytical Method: EPA 1664B									
Oil and Grease	ND	mg/L	4.9	4.9	1		10/02/19 08:00		
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Bicarbonate (CaCO ₃)	171	mg/L	20.0	20.0	1		10/01/19 18:45		
Alkalinity, Total as CaCO ₃	171	mg/L	20.0	20.0	1		10/01/19 18:45		
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	629	mg/L	11.1	11.1	1		10/03/19 20:30		
2540D Total Suspended Solids Analytical Method: SM 2540D									
Total Suspended Solids	8.0	mg/L	5.0	5.0	1		10/02/19 18:43		
4500PE Ortho Phosphorus Analytical Method: SM 4500-P									
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 13:56		
4500S2D Sulfide Water Analytical Method: SM 4500-S2 D									
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 13:47	18496-25-8	
5210B BOD, 5 day Analytical Method: SM 5210B Preparation Method: SM 5210B									
BOD, 5 day	ND	mg/L	2.0	2.0	1	09/27/19 21:37	10/02/19 14:48		1A
Total Organic Nitrogen Calc. Analytical Method: TKN-NH ₃ Calculation									
Total Organic Nitrogen	ND	mg/L	0.40	0.40	1		10/07/19 23:42		
300.0 IC Anions Analytical Method: EPA 300.0									
Nitrate as N	1.0	mg/L	0.050	0.0050	1		09/28/19 10:36	14797-55-8	

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ANALYTICAL RESULTS

Project: Plant Bowen

Pace Project No.: 2623698

Sample: BGWC-30		Lab ID: 2623698003		Collected: 09/27/19 09:45	Received: 09/27/19 16:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions		Analytical Method: EPA 300.0							
Nitrite as N	ND	mg/L	0.050	0.011	1		09/28/19 10:36	14797-65-0	
350.1 Ammonia		Analytical Method: EPA 350.1							
Nitrogen, Ammonia	ND	mg/L	0.10	0.10	1		09/30/19 11:29	7664-41-7	
351.2 Total Kjeldahl Nitrogen		Analytical Method: EPA 351.2 Preparation Method: EPA 351.2							
Nitrogen, Kjeldahl, Total	ND	mg/L	0.40	0.40	1	10/01/19 09:05	10/01/19 13:13	7727-37-9	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 21:46		

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623698

Sample: BGWC-36D Lab ID: 2623698004 Collected: 09/27/19 12:02 Received: 09/27/19 16:00 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	0.19	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 19:16	7439-89-6	
Magnesium	59.8	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 19:16	7439-95-4	
Manganese	0.14	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 19:16	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 19:16	7723-14-0	N2
Potassium	4.7	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 19:16	7440-09-7	
Sodium	26.2	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 19:16	7440-23-5	
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Bicarbonate (CaCO ₃)	153	mg/L	20.0	20.0	1		10/04/19 12:31		
Alkalinity, Total as CaCO ₃	153	mg/L	20.0	20.0	1		10/04/19 12:31		
4500PE Ortho Phosphorus Analytical Method: SM 4500-P									
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 13:56		
4500S2D Sulfide Water Analytical Method: SM 4500-S2 D									
Sulfide	ND	mg/L	0.20	0.20	1		10/03/19 13:48	18496-25-8	
5310B Dissolved Organic Carbon Analytical Method: SM 5310B									
Dissolved Organic Carbon	0.56J	mg/L	1.0	0.50	1		10/02/19 22:29		

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ANALYTICAL RESULTS

Project: Plant Bowen

Pace Project No.: 2623698

Sample: BGWA-33		Lab ID: 2623698005		Collected: 09/27/19 13:08		Received: 09/27/19 16:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	0.033J	mg/L	0.040	0.0092	1	10/09/19 08:23	10/11/19 06:22	7439-89-6	
Magnesium	31.6	mg/L	0.50	0.084	1	10/09/19 08:23	10/11/19 06:22	7439-95-4	
Manganese	0.014	mg/L	0.0050	0.00042	1	10/09/19 08:23	10/11/19 06:22	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/09/19 08:23	10/11/19 06:22	7723-14-0	N2
Potassium	1.8	mg/L	1.0	0.15	1	10/09/19 08:23	10/11/19 06:22	7440-09-7	
Sodium	2.1	mg/L	2.0	0.27	1	10/09/19 08:23	10/11/19 06:22	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	230	mg/L	20.0	20.0	1		10/01/19 18:54		
Alkalinity, Total as CaCO ₃	230	mg/L	20.0	20.0	1		10/01/19 18:54		

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623698

QC Batch: 36428

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2623698001, 2623698003

METHOD BLANK: 164509

Matrix: Water

Associated Lab Samples: 2623698001, 2623698003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/04/19 10:46	

LABORATORY CONTROL SAMPLE: 164510

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164511 164512

Parameter	Units	164511		164512		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		2623696001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Mercury	mg/L	ND	0.0025	0.0025	0.0022	0.0022	88	88	75-125	0	20	

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 576597 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698004

METHOD BLANK: 3133444 Matrix: Water
Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/09/19 08:23	
Magnesium	mg/L	ND	0.50	0.084	10/09/19 08:23	
Manganese	mg/L	ND	0.0050	0.00042	10/09/19 08:23	
Phosphorus	mg/L	ND	0.045	0.014	10/09/19 08:23	N2
Potassium	mg/L	ND	1.0	0.15	10/09/19 08:23	
Sodium	mg/L	ND	2.0	0.27	10/09/19 08:23	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	ND	3210	506	10/09/19 08:23	

LABORATORY CONTROL SAMPLE: 3133445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.5	101	80-120	
Magnesium	mg/L	12.5	12.4	100	80-120	
Manganese	mg/L	0.25	0.25	101	80-120	
Phosphorus	mg/L	0.25	0.24	95	80-120	N2
Potassium	mg/L	12.5	12.2	98	80-120	
Sodium	mg/L	12.5	12.4	100	80-120	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	82700	82600	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3133609 3133610

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623708004 Result	Spike Conc.	Spike Conc.	Result							Result
Iron	mg/L	0.049	2.5	2.5	2.7	2.7	104	104	75-125	0	20	
Magnesium	mg/L	49.1	12.5	12.5	61.6	62.2	100	105	75-125	1	20	
Manganese	mg/L	ND	0.25	0.25	0.27	0.26	107	104	75-125	3	20	
Phosphorus	mg/L	ND	0.25	0.25	0.27	0.26	106	103	75-125	3	20	N2
Potassium	mg/L	2.4	12.5	12.5	15.5	15.6	105	105	75-125	1	20	
Sodium	mg/L	24.4	12.5	12.5	37.3	37.8	104	107	75-125	1	20	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	526000	82700	82700	600000	603000	90	93	75-125	0	20	

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 576808 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2623698005

METHOD BLANK: 3135137 Matrix: Water
Associated Lab Samples: 2623698005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/11/19 06:29	
Magnesium	mg/L	ND	0.50	0.084	10/11/19 06:29	
Manganese	mg/L	ND	0.0050	0.00042	10/11/19 06:29	
Phosphorus	mg/L	ND	0.045	0.014	10/11/19 06:29	N2
Potassium	mg/L	ND	1.0	0.15	10/11/19 06:29	
Sodium	mg/L	ND	2.0	0.27	10/11/19 06:29	

LABORATORY CONTROL SAMPLE: 3135138

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.5	102	80-120	
Magnesium	mg/L	12.5	12.8	103	80-120	
Manganese	mg/L	0.25	0.26	104	80-120	
Phosphorus	mg/L	0.25	0.24	98	80-120	N2
Potassium	mg/L	12.5	12.6	101	80-120	
Sodium	mg/L	12.5	12.9	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3135139 3135140

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		35502685001 Result	Spike Conc.	Spike Conc.	Conc.								
Iron	mg/L	1940000 ug/L	125	125	125	2000	1990	50	43	75-125	0	20	M1
Magnesium	mg/L	4200U ug/L	625	625	625	647	652	103	104	75-125	1	20	
Manganese	mg/L	3610 ug/L	12.5	12.5	12.5	16.3	16.8	102	105	75-125	3	20	
Phosphorus	mg/L	700U ug/L	12.5	12.5	12.5	12.8	12.8	101	101	75-125	0	20	N2
Potassium	mg/L	906000 ug/L	625	625	625	1580	1570	107	106	75-125	0	20	
Sodium	mg/L	444000 ug/L	625	625	625	1120	1120	108	109	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 36173 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623698001, 2623698002, 2623698003

METHOD BLANK: 163347 Matrix: Water
Associated Lab Samples: 2623698001, 2623698002, 2623698003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Copper	mg/L	ND	0.025	0.00019	10/03/19 16:32	
Lead	mg/L	ND	0.0050	0.000046	10/03/19 16:32	
Zinc	mg/L	0.0016J	0.010	0.0015	10/03/19 16:32	

LABORATORY CONTROL SAMPLE: 163348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Zinc	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163349 163350

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		2623696001	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Copper	mg/L	ND	0.1	0.1	0.088	0.090	88	90	75-125	3	20		
Lead	mg/L	0.000054J	0.1	0.1	0.089	0.094	89	94	75-125	5	20		
Zinc	mg/L	0.0040J	0.1	0.1	0.091	0.096	87	91	75-125	5	20		

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 36282 Analysis Method: EPA 1664B
QC Batch Method: EPA 1664B Analysis Description: 1664 HEM, Oil and Grease
Associated Lab Samples: 2623698001, 2623698003

METHOD BLANK: 163839 Matrix: Water
Associated Lab Samples: 2623698001, 2623698003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Oil and Grease	mg/L	ND	5.0	5.0	10/02/19 08:00	

LABORATORY CONTROL SAMPLE: 163840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	40	39.8	100	78-114	

MATRIX SPIKE SAMPLE: 163842

Parameter	Units	2623558001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Oil and Grease	mg/L	23.1	40	80.3	143	78-114	M3

SAMPLE DUPLICATE: 163841

Parameter	Units	2623698001 Result	Dup Result	RPD	Max RPD	Qualifiers
Oil and Grease	mg/L	ND	ND		75	

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 36284 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698005

METHOD BLANK: 163853 Matrix: Water
Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	10/01/19 17:35	

LABORATORY CONTROL SAMPLE: 163854

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	98.0	98	85-115	

SAMPLE DUPLICATE: 163855

Parameter	Units	2623635002 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	165	164	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623698

QC Batch: 36486	Analysis Method: SM 2320B
QC Batch Method: SM 2320B	Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623698004	

METHOD BLANK: 164845 Matrix: Water

Associated Lab Samples: 2623698004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	20.0	20.0	10/04/19 12:28	

LABORATORY CONTROL SAMPLE: 164846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	100	102	102	85-115	

SAMPLE DUPLICATE: 164847

Parameter	Units	2623698004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	153	152	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 36464 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623698001, 2623698002, 2623698003

LABORATORY CONTROL SAMPLE: 164734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 164735

Parameter	Units	2623714002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	13.0	ND		10	

SAMPLE DUPLICATE: 164763

Parameter	Units	2623696005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	275	262	5	10	

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 36165 Analysis Method: SM 2540D
QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 2623698001

METHOD BLANK: 163320 Matrix: Water
Associated Lab Samples: 2623698001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	5.0	09/30/19 12:16	

LABORATORY CONTROL SAMPLE: 163321

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	99.5	100	90-110	

SAMPLE DUPLICATE: 163322

Parameter	Units	2623465001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	10.0	ND		10	

SAMPLE DUPLICATE: 163323

Parameter	Units	2623682001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	6.5	ND		10	

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623698

QC Batch: 36383	Analysis Method: SM 2540D
QC Batch Method: SM 2540D	Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 2623698003	

METHOD BLANK: 164324 Matrix: Water

Associated Lab Samples: 2623698003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	5.0	10/02/19 18:43	

LABORATORY CONTROL SAMPLE: 164325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	99.0	99	90-110	

SAMPLE DUPLICATE: 164326

Parameter	Units	2623856001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 164327

Parameter	Units	2623677002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND		10	

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623698

QC Batch: 36125 Analysis Method: SM 4500-P
 QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
 Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698004

METHOD BLANK: 163138 Matrix: Water
 Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/28/19 13:30	

LABORATORY CONTROL SAMPLE: 163139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.51	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163140 163141

Parameter	Units	2623698004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.50	0.50	100	101	80-120	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 36416 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698004

METHOD BLANK: 164448 Matrix: Water
Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	10/03/19 13:40	

LABORATORY CONTROL SAMPLE: 164449

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.43	87	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164450 164451

Parameter	Units	2623698001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	ND	ND	17	15	30-129		10	M1

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623698

QC Batch: 36102

Analysis Method: SM 5210B

QC Batch Method: SM 5210B

Analysis Description: 5210B BOD, 5 day

Associated Lab Samples: 2623698001, 2623698003

METHOD BLANK: 162918

Matrix: Water

Associated Lab Samples: 2623698001, 2623698003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
BOD, 5 day	mg/L	ND	2.0	2.0	10/02/19 14:17	1A

LABORATORY CONTROL SAMPLE: 162920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
BOD, 5 day	mg/L	198	205	104	85-115	1A

SAMPLE DUPLICATE: 163019

Parameter	Units	2623686001 Result	Dup Result	RPD	Max RPD	Qualifiers
BOD, 5 day	mg/L	831	690	19	20	1A

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 36067 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623698001, 2623698002, 2623698003

METHOD BLANK: 162737 Matrix: Water
Associated Lab Samples: 2623698001, 2623698002, 2623698003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.050	0.0050	09/27/19 18:48	
Nitrite as N	mg/L	ND	0.050	0.011	09/27/19 18:48	

LABORATORY CONTROL SAMPLE: 162738

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	10	10.5	105	90-110	
Nitrite as N	mg/L	10	10.7	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162739 162740

Parameter	Units	2623562005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	0.74			11.2	11.2				0	15	H1
Nitrite as N	mg/L	0.030J			10.7	10.5				2	15	H1

MATRIX SPIKE SAMPLE: 163021

Parameter	Units	2623704001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	ND	10	10.5	105	90-110	
Nitrite as N	mg/L	0.017J	10	10.8	108	90-110	

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 36150 Analysis Method: EPA 350.1
QC Batch Method: EPA 350.1 Analysis Description: 350.1 Ammonia
Associated Lab Samples: 2623698001, 2623698002, 2623698003

METHOD BLANK: 163273 Matrix: Water
Associated Lab Samples: 2623698001, 2623698002, 2623698003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.10	09/30/19 11:18	

LABORATORY CONTROL SAMPLE: 163274

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	10	10.3	103	90-110	

MATRIX SPIKE SAMPLE: 163275

Parameter	Units	2623698001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	1.4	10	12.0	106	90-110	

MATRIX SPIKE SAMPLE: 163276

Parameter	Units	2623682001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.96	10	11.5	105	90-110	

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623698

QC Batch: 36222 Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2 Analysis Description: 351.2 TKN
Associated Lab Samples: 2623698001, 2623698003

METHOD BLANK: 163614 Matrix: Water

Associated Lab Samples: 2623698001, 2623698003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	ND	0.40	0.40	10/01/19 13:03	

LABORATORY CONTROL SAMPLE: 163615

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	10	10.7	107	90-110	

MATRIX SPIKE SAMPLE: 163616

Parameter	Units	2623680001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	2.3	10	10.5	82	90-110	M1

MATRIX SPIKE SAMPLE: 163621

Parameter	Units	2623680003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/L	3.5	10	12.3	88	90-110	M1

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623698

QC Batch: 575017 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698004

METHOD BLANK: 3124986 Matrix: Water
Associated Lab Samples: 2623698001, 2623698002, 2623698003, 2623698004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/02/19 15:06	

LABORATORY CONTROL SAMPLE: 3124987

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	19.0	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124988 3124989

Parameter	Units	2623704001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	0.65J	20	20	19.6	19.8	95	96	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124990 3124991

Parameter	Units	2623708004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.6	19.4	96	96	80-120	1	20	

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QUALIFIERS

Project: Plant Bowen
Pace Project No.: 2623698

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-GA Pace Analytical Services - Atlanta, GA

PASI-O Pace Analytical Services - Ormond Beach

BATCH QUALIFIERS

Batch: 36345

[1] The calculated SCF was below the desired range of 0.6 to 1.0 mg/L. All other QC indicators, including the LCS, were within acceptance criteria

ANALYTE QUALIFIERS

1A The calculated SCF was below the desired range of 0.6 to 1.0 mg/L. All other QC indicators, including the LCS, were within acceptance criteria

B Analyte was detected in the associated method blank.

H1 Analysis conducted outside the EPA method holding time.

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

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen
Pace Project No.: 2623698

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623698001	BGWC-22	EPA 3010	576597	EPA 6010	576709
2623698002	BGWC-23	EPA 3010	576597	EPA 6010	576709
2623698003	BGWC-30	EPA 3010	576597	EPA 6010	576709
2623698004	BGWC-36D	EPA 3010	576597	EPA 6010	576709
2623698005	BGWA-33	EPA 3010	576808	EPA 6010	576923
2623698001	BGWC-22	EPA 3005A	36173	EPA 6020B	36203
2623698002	BGWC-23	EPA 3005A	36173	EPA 6020B	36203
2623698003	BGWC-30	EPA 3005A	36173	EPA 6020B	36203
2623698001	BGWC-22	EPA 7470A	36428	EPA 7470A	36481
2623698003	BGWC-30	EPA 7470A	36428	EPA 7470A	36481
2623698001	BGWC-22	EPA 1664B	36282		
2623698003	BGWC-30	EPA 1664B	36282		
2623698001	BGWC-22	SM 2320B	36284		
2623698002	BGWC-23	SM 2320B	36284		
2623698003	BGWC-30	SM 2320B	36284		
2623698004	BGWC-36D	SM 2320B	36486		
2623698005	BGWA-33	SM 2320B	36284		
2623698001	BGWC-22	SM 2540C	36464		
2623698002	BGWC-23	SM 2540C	36464		
2623698003	BGWC-30	SM 2540C	36464		
2623698001	BGWC-22	SM 2540D	36165		
2623698003	BGWC-30	SM 2540D	36383		
2623698001	BGWC-22	SM 4500-P	36125		
2623698002	BGWC-23	SM 4500-P	36125		
2623698003	BGWC-30	SM 4500-P	36125		
2623698004	BGWC-36D	SM 4500-P	36125		
2623698001	BGWC-22	SM 4500-S2 D	36416		
2623698002	BGWC-23	SM 4500-S2 D	36416		
2623698003	BGWC-30	SM 4500-S2 D	36416		
2623698004	BGWC-36D	SM 4500-S2 D	36416		
2623698001	BGWC-22	SM 5210B	36102	SM 5210B	36345
2623698003	BGWC-30	SM 5210B	36102	SM 5210B	36345
2623698001	BGWC-22	TKN-NH3 Calculation	36593		
2623698003	BGWC-30	TKN-NH3 Calculation	36593		
2623698001	BGWC-22	EPA 300.0	36067		
2623698002	BGWC-23	EPA 300.0	36067		
2623698003	BGWC-30	EPA 300.0	36067		
2623698001	BGWC-22	EPA 350.1	36150		
2623698002	BGWC-23	EPA 350.1	36150		
2623698003	BGWC-30	EPA 350.1	36150		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen
Pace Project No.: 2623698

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623698001	BGWC-22	EPA 351.2	36222	EPA 351.2	36226
2623698003	BGWC-30	EPA 351.2	36222	EPA 351.2	36226
2623698001	BGWC-22	SM 5310B	575017		
2623698002	BGWC-23	SM 5310B	575017		
2623698003	BGWC-30	SM 5310B	575017		
2623698004	BGWC-36D	SM 5310B	575017		

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	Attention:	
Address:	2480 Warner Road Atlanta, GA 30339	Copy To:	Geosyntec	Company Name:	
Email:	j.abraham@southhamco.com	Purchase Order #:	SCS10392775	Address:	
Phone:	(404)506-7239	Project Name:	Plant Bowen Additional Parameters	Pace Project Manager:	
Requested Due Date:		Project #:	Ash Pond	Pace Profile #:	
				315.5	
				Regulatory Agency:	
				State / Location:	
				GA	

Page: 0f

ITEM #	COLLECTED			MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	SAMPLE TEMP AT COLLECTION	Requested Analysis Filtered (Y/N)											Residual Chlorine (Y/N)																				
	DATE	START TIME	END TIME				Preservatives			Metals (6010)	Metals (6010/6020)**	Ortho Phosphorus (filtered)	Sulfide	Alkalinity, Bicarb	DOC (filtered)	TDS, NO3, NO2	Ammonia		TKN	TSS	BOD	Oil/Grease																
							H2SO4	HNO3	HCl														NaOH + Zinc Picolinate	Na2S2O3	Methanol	Other	Analyses Test	Y/N										
DATE	TIME	TIME	UNPRESERVED	# OF CONTAINERS	ACCEPTED BY / AFFILIATION	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME																			
1		9/27/19	1600		G	103																																
2		9/27/19	1145		G	72																																
3		9/27/19	0945		G	103																																
4		9/27/19	1702		G	62																																
5		9/27/19	1506		G	21																																
6																																						
7																																						
8																																						
9																																						
10																																						
11																																						
12																																						

W0#: 2623698

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	DATE	TIME	SAMPLE CONDITIONS
* (6010) Fe, Mg, Mn, P, K, Na	Rudney Caplan	9/27/19	1800	Charles Herb	9/27/19	1600			Received on Ice (Y/N)
** (6010) Fe, Mg, Mn, P, K, Na, Hardness (6020) Cu, Zn									Temp in C
									2.5

SAMPLER NAME AND SIGNATURE	Audrey Crafton, Joe Booth
PRINT Name of SAMPLER:	Audrey Crafton
SIGNATURE of SAMPLER:	Rudney Caplan
DATE Signed:	9/27/19



Sample Condition Upon Receipt

Client Name: GLA Power

Project # _____

WO#: **2623698**

PM: **BM** Due Date: **10/04/19**
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 2.5 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: 9/27/19 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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input 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 checked="" type="checkbox"/> Yes <input 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 10, 2019

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

RE: Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

Atlanta Certification IDs

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

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623707001	BGWC-35D	Water	09/26/19 09:52	09/27/19 13:15
2623707002	BGWC-16	Water	09/26/19 09:56	09/27/19 13:15
2623707003	BGWC-17	Water	09/26/19 11:34	09/27/19 13:15
2623707004	BGWC-18	Water	09/26/19 12:57	09/27/19 13:15
2623707005	BGWC-32	Water	09/26/19 13:48	09/27/19 13:15
2623707006	BGWC-19	Water	09/26/19 14:05	09/27/19 13:15
2623707007	BGWC-20	Water	09/26/19 16:15	09/27/19 13:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623707001	BGWC-35D	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623707002	BGWC-16	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623707003	BGWC-17	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623707004	BGWC-18	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623707005	BGWC-32	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623707006	BGWC-19	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623707007	BGWC-20	EPA 6010	CS2	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

Sample: BGWC-35D		Lab ID: 2623707001		Collected: 09/26/19 09:52	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.97	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:58	7439-89-6		
Magnesium	92.2	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:58	7439-95-4		
Manganese	0.12	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 13:58	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:58	7723-14-0	N2	
Potassium	8.3	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:58	7440-09-7		
Sodium	51.1	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:58	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	112	mg/L	20.0	20.0	1		10/03/19 12:17			
Alkalinity, Total as CaCO ₃	112	mg/L	20.0	20.0	1		10/03/19 12:17			
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 20:39			
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:03	18496-25-8		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/03/19 02:19			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

Sample: BGWC-16 Lab ID: 2623707002 Collected: 09/26/19 09:56 Received: 09/27/19 13:15 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	0.13	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 14:02	7439-89-6	
Magnesium	28.5	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 14:02	7439-95-4	
Manganese	3.3	mg/L	0.10	0.0084	20	10/08/19 16:13	10/10/19 15:19	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 14:02	7723-14-0	N2
Potassium	4.0	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 14:02	7440-09-7	
Sodium	21.6	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 14:02	7440-23-5	
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Bicarbonate (CaCO ₃)	147	mg/L	20.0	20.0	1		10/03/19 12:23		
Alkalinity, Total as CaCO ₃	147	mg/L	20.0	20.0	1		10/03/19 12:23		
4500PE Ortho Phosphorus Analytical Method: SM 4500-P									
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 20:40		
4500S2D Sulfide Water Analytical Method: SM 4500-S2 D									
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:04	18496-25-8	
5310B Dissolved Organic Carbon Analytical Method: SM 5310B									
Dissolved Organic Carbon	0.54J	mg/L	1.0	0.50	1		10/03/19 02:32		

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

Sample: BGWC-17		Lab ID: 2623707003		Collected: 09/26/19 11:34	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.0097J	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 14:05	7439-89-6		
Magnesium	30.6	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 14:05	7439-95-4		
Manganese	0.16	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 14:05	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 14:05	7723-14-0	N2	
Potassium	3.3	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 14:05	7440-09-7		
Sodium	17.0	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 14:05	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	118	mg/L	20.0	20.0	1		10/03/19 12:26			
Alkalinity, Total as CaCO ₃	118	mg/L	20.0	20.0	1		10/03/19 12:26			
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 20:41			
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:05	18496-25-8		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/03/19 03:24			

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

Sample: BGWC-18		Lab ID: 2623707004		Collected: 09/26/19 12:57	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.0094J	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 14:09	7439-89-6		
Magnesium	27.0	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 14:09	7439-95-4		
Manganese	0.048	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 14:09	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 14:09	7723-14-0	N2	
Potassium	2.0	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 14:09	7440-09-7		
Sodium	7.6	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 14:09	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	160	mg/L	20.0	20.0	1		10/03/19 12:31			
Alkalinity, Total as CaCO ₃	160	mg/L	20.0	20.0	1		10/03/19 12:31			
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/27/19 20:42			
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:15	18496-25-8		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	0.67J	mg/L	1.0	0.50	1		10/03/19 04:06			

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

Sample: BGWC-32		Lab ID: 2623707005		Collected: 09/26/19 13:48	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.065	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 14:12	7439-89-6		
Magnesium	61.1	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 14:12	7439-95-4		
Manganese	0.26	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 14:12	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 14:12	7723-14-0	N2	
Potassium	5.2	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 14:12	7440-09-7		
Sodium	20.9	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 14:12	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	172	mg/L	20.0	20.0	1		10/03/19 12:38			
Alkalinity, Total as CaCO ₃	172	mg/L	20.0	20.0	1		10/03/19 12:38			
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 13:32			
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:16	18496-25-8		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	0.62J	mg/L	1.0	0.50	1		10/03/19 04:21			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

Sample: BGWC-19		Lab ID: 2623707006		Collected: 09/26/19 14:05	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 14:15	7439-89-6		
Magnesium	30.4	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 14:15	7439-95-4		
Manganese	0.23	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 14:15	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 14:15	7723-14-0	N2	
Potassium	2.8	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 14:15	7440-09-7		
Sodium	5.9	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 14:15	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	164	mg/L	20.0	20.0	1		10/03/19 12:43			
Alkalinity, Total as CaCO ₃	164	mg/L	20.0	20.0	1		10/03/19 12:43			
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 13:54			
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:16	18496-25-8		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	0.76J	mg/L	1.0	0.50	1		10/03/19 04:37			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

Sample: BGWC-20		Lab ID: 2623707007		Collected: 09/26/19 16:15		Received: 09/27/19 13:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	0.19	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 14:26	7439-89-6	
Magnesium	41.7	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 14:26	7439-95-4	
Manganese	0.40	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 14:26	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 14:26	7723-14-0	N2
Potassium	5.7	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 14:26	7440-09-7	
Sodium	26.0	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 14:26	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	92.0	mg/L	20.0	20.0	1		10/03/19 12:49		
Alkalinity, Total as CaCO ₃	92.0	mg/L	20.0	20.0	1		10/03/19 12:49		
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P							
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:00		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D							
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 18:17	18496-25-8	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/03/19 04:53		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

QC Batch: 576681 Analysis Method: EPA 6010
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET
 Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004, 2623707005, 2623707006, 2623707007

METHOD BLANK: 3134011 Matrix: Water
 Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004, 2623707005, 2623707006, 2623707007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/09/19 12:43	
Magnesium	mg/L	ND	0.50	0.084	10/09/19 12:43	
Manganese	mg/L	ND	0.0050	0.00042	10/09/19 12:43	
Phosphorus	mg/L	ND	0.045	0.014	10/09/19 12:43	N2
Potassium	mg/L	ND	1.0	0.15	10/09/19 12:43	
Sodium	mg/L	ND	2.0	0.27	10/09/19 12:43	

LABORATORY CONTROL SAMPLE: 3134012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.5	98	80-120	
Magnesium	mg/L	12.5	12.2	98	80-120	
Manganese	mg/L	0.25	0.25	98	80-120	
Phosphorus	mg/L	0.25	0.23	92	80-120	N2
Potassium	mg/L	12.5	12.1	97	80-120	
Sodium	mg/L	12.5	12.3	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3134013 3134014

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623635003 Result	Spike Conc.	Spike Conc.	Conc.								
Iron	mg/L	3.1	2.5	2.5	5.6	5.6	98	100	75-125	1	20		
Magnesium	mg/L	8.6	12.5	12.5	21.1	21.2	99	101	75-125	1	20		
Manganese	mg/L	0.17	0.25	0.25	0.42	0.42	98	99	75-125	1	20		
Phosphorus	mg/L	0.083	0.25	0.25	0.33	0.33	98	99	75-125	1	20	N2	
Potassium	mg/L	0.31J	12.5	12.5	13.1	13.1	102	103	75-125	0	20		
Sodium	mg/L	11.0	12.5	12.5	23.7	23.8	101	103	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623707

QC Batch: 36366

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity

Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004, 2623707005, 2623707006, 2623707007

METHOD BLANK: 164227

Matrix: Water

Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004, 2623707005, 2623707006, 2623707007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	20.0	20.0	10/03/19 11:56	

LABORATORY CONTROL SAMPLE: 164228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	100	96.0	96	85-115	

SAMPLE DUPLICATE: 164468

Parameter	Units	2623706006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	173	172	1	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.

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

QC Batch: 36119 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004

METHOD BLANK: 163046 Matrix: Water
Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/27/19 20:37	

LABORATORY CONTROL SAMPLE: 163047

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.52	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163048 163049

Parameter	Units	163048		163049		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623707001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Orthophosphate as P	mg/L	ND	0.5	0.5	0.50	0.51	100	102	80-120	2	10

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

QC Batch: 36125 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623707005, 2623707006, 2623707007

METHOD BLANK: 163138 Matrix: Water
Associated Lab Samples: 2623707005, 2623707006, 2623707007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/28/19 13:30	

LABORATORY CONTROL SAMPLE: 163139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.51	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163140 163141

Parameter	Units	2623698004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.50	0.50	100	101	80-120	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

QC Batch: 36187 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004, 2623707005, 2623707006, 2623707007

METHOD BLANK: 163403 Matrix: Water
Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004, 2623707005, 2623707006, 2623707007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	09/30/19 17:04	

LABORATORY CONTROL SAMPLE: 163404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.45	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163405 163406

Parameter	Units	2623614004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.40	0.40	81	80	30-129	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

QC Batch: 575018 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004, 2623707005, 2623707006, 2623707007

METHOD BLANK: 3124995 Matrix: Water
Associated Lab Samples: 2623707001, 2623707002, 2623707003, 2623707004, 2623707005, 2623707006, 2623707007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/02/19 23:00	

LABORATORY CONTROL SAMPLE: 3124996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	18.9	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124997 3124998

Parameter	Units	2623718001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.4	19.4	95	95	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124999 3125000

Parameter	Units	2623707003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.9	19.9	97	97	80-120	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

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-GA Pace Analytical Services - Atlanta, GA

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623707

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623707001	BGWC-35D	EPA 3010	576681	EPA 6010	576722
2623707002	BGWC-16	EPA 3010	576681	EPA 6010	576722
2623707003	BGWC-17	EPA 3010	576681	EPA 6010	576722
2623707004	BGWC-18	EPA 3010	576681	EPA 6010	576722
2623707005	BGWC-32	EPA 3010	576681	EPA 6010	576722
2623707006	BGWC-19	EPA 3010	576681	EPA 6010	576722
2623707007	BGWC-20	EPA 3010	576681	EPA 6010	576722
2623707001	BGWC-35D	SM 2320B	36366		
2623707002	BGWC-16	SM 2320B	36366		
2623707003	BGWC-17	SM 2320B	36366		
2623707004	BGWC-18	SM 2320B	36366		
2623707005	BGWC-32	SM 2320B	36366		
2623707006	BGWC-19	SM 2320B	36366		
2623707007	BGWC-20	SM 2320B	36366		
2623707001	BGWC-35D	SM 4500-P	36119		
2623707002	BGWC-16	SM 4500-P	36119		
2623707003	BGWC-17	SM 4500-P	36119		
2623707004	BGWC-18	SM 4500-P	36119		
2623707005	BGWC-32	SM 4500-P	36125		
2623707006	BGWC-19	SM 4500-P	36125		
2623707007	BGWC-20	SM 4500-P	36125		
2623707001	BGWC-35D	SM 4500-S2 D	36187		
2623707002	BGWC-16	SM 4500-S2 D	36187		
2623707003	BGWC-17	SM 4500-S2 D	36187		
2623707004	BGWC-18	SM 4500-S2 D	36187		
2623707005	BGWC-32	SM 4500-S2 D	36187		
2623707006	BGWC-19	SM 4500-S2 D	36187		
2623707007	BGWC-20	SM 4500-S2 D	36187		
2623707001	BGWC-35D	SM 5310B	575018		
2623707002	BGWC-16	SM 5310B	575018		
2623707003	BGWC-17	SM 5310B	575018		
2623707004	BGWC-18	SM 5310B	575018		
2623707005	BGWC-32	SM 5310B	575018		
2623707006	BGWC-19	SM 5310B	575018		
2623707007	BGWC-20	SM 5310B	575018		

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 Maner Road Atlanta, GA 30339
 Email: jbraham@southernco.com
 Phone: (404)508-7239 Fax: _____

Section B Required Project Information: Report To: Joju Abraham
 Copy To: Geosymbc
 Purchase Order #: SCS10382775
 Project Name: Plant Bowen Additional Parameters
 Project #: Ash Pond

Section C Invoice Information: Attention: Company Name:
 Address:
 Regulatory Agency:
 Pace Quote: betsy.mcdaniel@pacelabs.com
 Pace Project Manager: betsy.mcdaniel@pacelabs.com
 Pace Profile #: 3155
 State / Location: GA

Page: | Of

ITEM #	MATRIX CODE DWW, WT, WW, P, SL, OL, WP, AK, OT, TS	SAMPLE ID	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Preservatives										Analyses Test Y/N	Requested Analyses Filtered (Y/N)	Residual Chlorine (Y/N)									
			START DATE	START TIME				END DATE	END TIME	Unpreserved	H2SO4	HNO3	HCl	NaOH + Zinc Picrate	Na2S2O3	Methanol	Other				Metals (G010)*	Metals (G010/6020)**	Ortho Phosphorus (Filtered)	Sulfide	Alkalinity, Bicarb	DOC (Filtered)	TDS, NO3, NO2	Ammonia	TKN
1	DWW	BGWC-35D	9/26/19	09:52	G	WT	62											X	X	X	X	X	X						
2	WT	BGWC-16	9/26/19	09:56	G	WT	62											X	X	X	X	X	X						
3	WT	BGWC-17	9/26/19	11:34	G	WT	62											X	X	X	X	X	X						
4	WT	BGWC-18	9/26/19	12:57	G	WT	62											X	X	X	X	X	X						
5	WT	BGWC-32	9/26/19	13:48	G	WT	62											X	X	X	X	X	X						
6	WT	BGWC-19	9/26/19	14:05	G	WT	62											X	X	X	X	X	X						
7	WT	BGWC-20	9/26/19	16:15	G	WT	62											X	X	X	X	X	X						
8																													
9																													
10																													
11																													
12																													

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION: Andrew Crafter
 DATE: 9/26/19
 TIME: 5:00

ACCEPTED BY / AFFILIATION: Cindy Mancos
 DATE: 9/27/19
 TIME: 17:33

RELINQUISHED BY / AFFILIATION: Andrew Crafter
 DATE: 9/27/19
 TIME: 13:15

DATE: 9/26/19

TIME: 5:00

TEMP In C: 5.0

Received on: _____
 Site: _____
 Custody Sealed: _____
 Cooler: _____
 Samples (Y/N): _____

SAMPLER NAME AND SIGNATURE: Andrew Crafter
 PRINT Name of SAMPLER: Andrew Crafter
 SIGNATURE of SAMPLER: Andrew Crafter
 DATE Signed: 9/26/19

NO#: 2623707

Page 20 of 21

2623707



Sample Condition Upon Receipt

WO#: 2623707

Client Name: GABWES/CCR

PM: BM

Due Date: 10/04/19

CLIENT: GAPower-CCR

Courier: [x] Fed Ex [] UPS [] USPS [] Client [] Commercial [x] Pace Other

Tracking #: _____

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

Proj. Due Date: _____
Proj. Name: _____

Packing Material: [x] Bubble Wrap [x] Bubble Bags [] None [] Other

Thermometer Used 214 Type of Ice: Wet Blue None [] Samples on ice, cooling process has begun

Cooler Temperature 5.0C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/27/19

Table with 16 rows and 2 columns. Row 1: Chain of Custody Present: [x] Yes [] No [] N/A 1. Row 2: Chain of Custody Filled Out: [x] Yes [] No [] N/A 2. Row 3: Chain of Custody Relinquished: [x] Yes [] No [] N/A 3. Row 4: Sampler Name & Signature on COC: [x] Yes [] No [] N/A 4. Row 5: Samples Arrived within Hold Time: [x] Yes [] No [] N/A 5. Row 6: Short Hold Time Analysis (<72hr): [x] Yes [] No [] N/A 6. Row 7: Rush Turn Around Time Requested: [] Yes [x] No [] N/A 7. Row 8: Sufficient Volume: [x] Yes [] No [] N/A 8. Row 9: Correct Containers Used: [x] Yes [] No [] N/A 9. Row 10: -Pace Containers Used: [x] Yes [] No [] N/A. Row 11: Containers Intact: [x] Yes [] No [] N/A 10. Row 12: Filtered volume received for Dissolved tests: [] Yes [] No [x] N/A 11. Row 13: Sample Labels match COC: [x] Yes [] No [] N/A 12. Row 14: -Includes date/time/ID/Analysis Matrix: W. Row 15: All containers needing preservation have been checked. [x] Yes [] No [] N/A 13. Row 16: All containers needing preservation are found to be in compliance with EPA recommendation. [x] Yes [] No [] N/A. Row 17: exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) [] Yes [x] No. Row 18: Samples checked for dechlorination: [] Yes [] No [x] N/A 14. Row 19: Headspace in VOA Vials (>6mm): [] Yes [] No [x] N/A 15. Row 20: Trip Blank Present: [] Yes [] No [x] N/A 16. Row 21: Trip Blank Custody Seals Present [] Yes [] No [x] N/A. Row 22: 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 23, 2019

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

RE: Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

Atlanta Certification IDs

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

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alaska DEC- CS/UST/LUST
Alabama Certification #: 41320
Arizona Certification# AZ0819
Colorado Certification: FL NELAC Reciprocity
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Kentucky Certification #: 90050
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
New Hampshire Certification #: 2958
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

Asheville Certification IDs

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

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SAMPLE SUMMARY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623708

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623708001	BGWC-10	Water	09/25/19 09:15	09/27/19 13:15
2623708002	BGWC-12	Water	09/25/19 14:05	09/27/19 13:15
2623708003	BGWC-14	Water	09/25/19 13:48	09/27/19 13:15
2623708004	Dup-2	Water	09/25/19 00:00	09/27/19 13:15
2623708005	FBL 092519	Water	09/25/19 16:24	09/27/19 13:15
2623708006	EQBL 092519	Water	09/25/19 16:31	09/27/19 13:15

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623708001	BGWC-10	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623708002	BGWC-12	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
2623708003	BGWC-14	SM 5310B	SA1	1	PASI-O
		EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
2623708004	Dup-2	SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
		EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
2623708005	FBL 092519	SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
		EPA 6010	LEC	9	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 2540D	ALW	1	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
2623708006	EQBL 092519	SM 4500-S2 D	KN	1	PASI-GA
		EPA 353.2 Rev 2.0 1993	KDF1	1	PASI-A
		SM 5310B	SA1	1	PASI-O
		EPA 6010	LEC	9	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 2540D	ALW	1	PASI-GA
2623708006	EQBL 092519	SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		EPA 353.2 Rev 2.0 1993	MFO	1	PASI-A
		SM 5310B	SA1	1	PASI-O

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623708

Sample: BGWC-10		Lab ID: 2623708001		Collected: 09/25/19 09:15	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.54	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 19:21	7439-89-6		
Magnesium	27.3	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 19:21	7439-95-4		
Manganese	0.065	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 19:21	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 19:21	7723-14-0	N2	
Potassium	2.0	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 19:21	7440-09-7		
Sodium	20.1	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 19:21	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	162	mg/L	20.0	20.0	1		10/03/19 12:55			
Alkalinity, Total as CaCO ₃	162	mg/L	20.0	20.0	1		10/03/19 12:55			
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	0.78J	mg/L	1.0	0.50	1		10/02/19 19:54			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623708

Sample: BGWC-12 Lab ID: 2623708002 Collected: 09/25/19 14:05 Received: 09/27/19 13:15 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	0.082	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 19:26	7439-89-6	
Magnesium	48.7	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 19:26	7439-95-4	
Manganese	0.0024J	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 19:26	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 19:26	7723-14-0	N2
Potassium	2.5	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 19:26	7440-09-7	
Sodium	24.7	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 19:26	7440-23-5	
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Bicarbonate (CaCO ₃)	144	mg/L	20.0	20.0	1		10/03/19 13:37		
Alkalinity, Total as CaCO ₃	144	mg/L	20.0	20.0	1		10/03/19 13:37		
4500PE Ortho Phosphorus Analytical Method: SM 4500-P									
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:04		1A, H1
4500S2D Sulfide Water Analytical Method: SM 4500-S2 D									
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 15:54	18496-25-8	
5310B Dissolved Organic Carbon Analytical Method: SM 5310B									
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 20:27		

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

Sample: BGWC-14 Lab ID: 2623708003 Collected: 09/25/19 13:48 Received: 09/27/19 13:15 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	0.032J	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 19:30	7439-89-6	
Magnesium	43.4	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 19:30	7439-95-4	
Manganese	0.016	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 19:30	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 19:30	7723-14-0	N2
Potassium	2.8	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 19:30	7440-09-7	
Sodium	22.7	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 19:30	7440-23-5	
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Bicarbonate (CaCO ₃)	209	mg/L	20.0	20.0	1		10/03/19 13:42		
Alkalinity, Total as CaCO ₃	209	mg/L	20.0	20.0	1		10/03/19 13:42		
4500PE Ortho Phosphorus Analytical Method: SM 4500-P									
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:05		1A, H1
4500S2D Sulfide Water Analytical Method: SM 4500-S2 D									
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 15:55	18496-25-8	
5310B Dissolved Organic Carbon Analytical Method: SM 5310B									
Dissolved Organic Carbon	0.66J	mg/L	1.0	0.50	1		10/02/19 20:11		

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623708

Sample: Dup-2		Lab ID: 2623708004		Collected: 09/25/19 00:00	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.049	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 19:35	7439-89-6		
Magnesium	49.1	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 19:35	7439-95-4		
Manganese	ND	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 19:35	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 19:35	7723-14-0	N2	
Potassium	2.4	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 19:35	7440-09-7		
Sodium	24.4	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 19:35	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	235	mg/L	20.0	20.0	1		10/03/19 13:52			
Alkalinity, Total as CaCO ₃	235	mg/L	20.0	20.0	1		10/03/19 13:52			
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:07		1A, H3	
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 15:56	18496-25-8		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 19:10			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

Sample: FBL 092519		Lab ID: 2623708005		Collected: 09/25/19 16:24	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	ND	mg/L	0.0050	0.0026	1	10/08/19 14:00	10/09/19 19:40	7440-50-8		
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 19:40	7439-89-6		
Magnesium	ND	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 19:40	7439-95-4		
Manganese	ND	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 19:40	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 19:40	7723-14-0	N2	
Potassium	ND	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 19:40	7440-09-7		
Sodium	ND	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 19:40	7440-23-5		
Tot Hardness asCaCO3 (SM 2340B)	ND	mg/L	3.2	0.51	1	10/08/19 14:00	10/09/19 19:40			
Zinc	ND	mg/L	0.020	0.011	1	10/08/19 14:00	10/09/19 19:40	7440-66-6		
2320B Alkalinity Low Level		Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	1.0	1.0	1		10/04/19 15:03			
Alkalinity, Total as CaCO3	ND	mg/L	1.0	1.0	1		10/04/19 15:03			
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	13.0	mg/L	10.0	10.0	1		10/02/19 16:03			
2540D Total Suspended Solids		Analytical Method: SM 2540D								
Total Suspended Solids	ND	mg/L	11.1	11.1	1		10/08/19 16:31		H1	
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:07		1A,H1	
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 16:05	18496-25-8		
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2 Rev 2.0 1993								
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/23/19 08:31			
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 21:21			

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

Sample: EQBL 092519		Lab ID: 2623708006		Collected: 09/25/19 16:31	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	ND	mg/L	0.0050	0.0026	1	10/08/19 14:00	10/09/19 19:54	7440-50-8		
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 19:54	7439-89-6		
Magnesium	ND	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 19:54	7439-95-4		
Manganese	ND	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 19:54	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 19:54	7723-14-0	N2	
Potassium	ND	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 19:54	7440-09-7		
Sodium	ND	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 19:54	7440-23-5		
Tot Hardness asCaCO3 (SM 2340B)	ND	mg/L	3.2	0.51	1	10/08/19 14:00	10/09/19 19:54			
Zinc	ND	mg/L	0.020	0.011	1	10/08/19 14:00	10/09/19 19:54	7440-66-6		
2320B Alkalinity Low Level		Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	1.0	1.0	1		10/04/19 15:08			
Alkalinity, Total as CaCO3	ND	mg/L	1.0	1.0	1		10/04/19 15:08			
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	15.0	mg/L	10.0	10.0	1		10/02/19 16:03			
2540D Total Suspended Solids		Analytical Method: SM 2540D								
Total Suspended Solids	ND	mg/L	10.0	10.0	1		10/08/19 16:31		H1	
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		09/28/19 14:08		1A,H1	
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		09/30/19 16:06	18496-25-8		
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2 Rev 2.0 1993								
Nitrogen, NO2 plus NO3	ND	mg/L	0.040	0.017	1		10/18/19 20:59		P4	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 21:35			

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623708

QC Batch: 576597 Analysis Method: EPA 6010
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET
 Associated Lab Samples: 2623708001, 2623708002, 2623708003, 2623708004, 2623708005, 2623708006

METHOD BLANK: 3133444 Matrix: Water
 Associated Lab Samples: 2623708001, 2623708002, 2623708003, 2623708004, 2623708005, 2623708006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Copper	ug/L	ND	5.0	2.6	10/09/19 08:23	
Iron	mg/L	ND	0.040	0.0092	10/09/19 08:23	
Magnesium	mg/L	ND	0.50	0.084	10/09/19 08:23	
Manganese	mg/L	ND	0.0050	0.00042	10/09/19 08:23	
Phosphorus	mg/L	ND	0.045	0.014	10/09/19 08:23	N2
Potassium	mg/L	ND	1.0	0.15	10/09/19 08:23	
Sodium	mg/L	ND	2.0	0.27	10/09/19 08:23	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	ND	3210	506	10/09/19 08:23	
Zinc	ug/L	ND	20.0	11.0	10/09/19 08:23	

LABORATORY CONTROL SAMPLE: 3133445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	250	240	96	80-120	
Iron	mg/L	2.5	2.5	101	80-120	
Magnesium	mg/L	12.5	12.4	100	80-120	
Manganese	mg/L	0.25	0.25	101	80-120	
Phosphorus	mg/L	0.25	0.24	95	80-120	N2
Potassium	mg/L	12.5	12.2	98	80-120	
Sodium	mg/L	12.5	12.4	100	80-120	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	82700	82600	100	80-120	
Zinc	ug/L	1250	1280	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3133609 3133610

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623708004 Result	Spike Conc.	Spike Conc.	Result						
Copper	ug/L	ND	250	250	268	259	107	104	75-125	3	20
Iron	mg/L	0.049	2.5	2.5	2.7	2.7	104	104	75-125	0	20
Magnesium	mg/L	49.1	12.5	12.5	61.6	62.2	100	105	75-125	1	20
Manganese	mg/L	ND	0.25	0.25	0.27	0.26	107	104	75-125	3	20
Phosphorus	mg/L	ND	0.25	0.25	0.27	0.26	106	103	75-125	3	20 N2
Potassium	mg/L	2.4	12.5	12.5	15.5	15.6	105	105	75-125	1	20
Sodium	mg/L	24.4	12.5	12.5	37.3	37.8	104	107	75-125	1	20
Tot Hardness asCaCO3 (SM 2340B)	ug/L	526000	82700	82700	600000	603000	90	93	75-125	0	20
Zinc	ug/L	ND	1250	1250	1310	1270	105	102	75-125	3	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

QC Batch: 36366 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2623708001, 2623708002, 2623708003, 2623708004

METHOD BLANK: 164227 Matrix: Water
Associated Lab Samples: 2623708001, 2623708002, 2623708003, 2623708004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	20.0	20.0	10/03/19 11:56	

LABORATORY CONTROL SAMPLE: 164228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	100	96.0	96	85-115	

SAMPLE DUPLICATE: 164468

Parameter	Units	2623706006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO3	mg/L	173	172	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623708

QC Batch: 36503

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity, Low Level

Associated Lab Samples: 2623708005, 2623708006

METHOD BLANK: 164938

Matrix: Water

Associated Lab Samples: 2623708005, 2623708006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	1.0	1.0	10/04/19 14:44	

LABORATORY CONTROL SAMPLE: 164939

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	47.5	95	85-115	

SAMPLE DUPLICATE: 164940

Parameter	Units	2623704001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	ND		10	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

QC Batch: 36344 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623708005, 2623708006

LABORATORY CONTROL SAMPLE: 164074

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	419	105	84-108	

SAMPLE DUPLICATE: 164075

Parameter	Units	2623639001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	503	491	2	10	

SAMPLE DUPLICATE: 164076

Parameter	Units	2623623008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	126	119	6	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

QC Batch: 36634 Analysis Method: SM 2540D
QC Batch Method: SM 2540D Analysis Description: 2540D Total Suspended Solids
Associated Lab Samples: 2623708005, 2623708006

METHOD BLANK: 165502 Matrix: Water
Associated Lab Samples: 2623708005, 2623708006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	5.0	10/08/19 16:31	

LABORATORY CONTROL SAMPLE: 165503

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	99.0	99	90-110	

SAMPLE DUPLICATE: 165504

Parameter	Units	2622860001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND			10 H1

SAMPLE DUPLICATE: 165505

Parameter	Units	2623854001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	163	190	15		10 D6

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

QC Batch: 36125 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623708002, 2623708003, 2623708004, 2623708005, 2623708006

METHOD BLANK: 163138 Matrix: Water
Associated Lab Samples: 2623708002, 2623708003, 2623708004, 2623708005, 2623708006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	09/28/19 13:30	

LABORATORY CONTROL SAMPLE: 163139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.51	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163140 163141

Parameter	Units	2623698004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.50	0.50	100	101	80-120	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

QC Batch: 36186 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623708002, 2623708003, 2623708004, 2623708005, 2623708006

METHOD BLANK: 163399 Matrix: Water
Associated Lab Samples: 2623708002, 2623708003, 2623708004, 2623708005, 2623708006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	09/30/19 14:59	

LABORATORY CONTROL SAMPLE: 163400

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163401 163402

Parameter	Units	2623644003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.49	0.50	98	100	30-129	2	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

QC Batch: 504416 Analysis Method: EPA 353.2 Rev 2.0 1993
QC Batch Method: EPA 353.2 Rev 2.0 1993 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 2623708006

METHOD BLANK: 2710764 Matrix: Water
Associated Lab Samples: 2623708006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.040	0.017	10/18/19 20:57	

LABORATORY CONTROL SAMPLE: 2710765

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.6	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2710766 2710767

Parameter	Units	92448984001		MS		MSD		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Nitrogen, NO2 plus NO3	mg/L	0.80	2.5	2.5	2.9	3.0	84	87	90-110	3	10	M1	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2710768 2710769

Parameter	Units	92449201001		MS		MSD		% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result						
Nitrogen, NO2 plus NO3	mg/L	18.9	2.5	2.5	23.7	26.5	191	306	90-110	11	10	M6,R1	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

QC Batch: 504958 Analysis Method: EPA 353.2 Rev 2.0 1993
QC Batch Method: EPA 353.2 Rev 2.0 1993 Analysis Description: 353.2 Nitrate + Nitrite, preserved
Associated Lab Samples: 2623708005

METHOD BLANK: 2713292 Matrix: Water
Associated Lab Samples: 2623708005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	ND	0.040	0.017	10/23/19 08:29	

LABORATORY CONTROL SAMPLE: 2713311

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	mg/L	2.5	2.5	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2713312 2713313

Parameter	Units	2713312		2713313		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92449927001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Nitrogen, NO2 plus NO3	mg/L	0.10	2.5	2.5	2.5	2.5	97	97	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2713314 2713315

Parameter	Units	2713314		2713315		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92449927002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Nitrogen, NO2 plus NO3	mg/L	0.33	2.5	2.5	2.5	2.5	88	88	90-110	0	10 M1	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

QC Batch: 575017 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623708001, 2623708002, 2623708003, 2623708004, 2623708005, 2623708006

METHOD BLANK: 3124986 Matrix: Water
Associated Lab Samples: 2623708001, 2623708002, 2623708003, 2623708004, 2623708005, 2623708006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/02/19 15:06	

LABORATORY CONTROL SAMPLE: 3124987

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	19.0	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124988 3124989

Parameter	Units	2623704001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	0.65J	20	20	19.6	19.8	95	96	80-120	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124990 3124991

Parameter	Units	2623708004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.6	19.4	96	96	80-120	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623708

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
PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

1A Sample was received outside of the EPA recommended holding time or was received with insufficient time to run sample within the EPA recommended holding time.

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

H1 Analysis conducted outside the EPA method holding time.

H3 Sample was received or analysis requested beyond the recognized method holding time.

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

P4 Sample field preservation does not meet EPA or method recommendations for this analysis.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623708

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623708001	BGWC-10	EPA 3010	576597	EPA 6010	576709
2623708002	BGWC-12	EPA 3010	576597	EPA 6010	576709
2623708003	BGWC-14	EPA 3010	576597	EPA 6010	576709
2623708004	Dup-2	EPA 3010	576597	EPA 6010	576709
2623708005	FBL 092519	EPA 3010	576597	EPA 6010	576709
2623708006	EQBL 092519	EPA 3010	576597	EPA 6010	576709
2623708001	BGWC-10	SM 2320B	36366		
2623708002	BGWC-12	SM 2320B	36366		
2623708003	BGWC-14	SM 2320B	36366		
2623708004	Dup-2	SM 2320B	36366		
2623708005	FBL 092519	SM 2320B	36503		
2623708006	EQBL 092519	SM 2320B	36503		
2623708005	FBL 092519	SM 2540C	36344		
2623708006	EQBL 092519	SM 2540C	36344		
2623708005	FBL 092519	SM 2540D	36634		
2623708006	EQBL 092519	SM 2540D	36634		
2623708002	BGWC-12	SM 4500-P	36125		
2623708003	BGWC-14	SM 4500-P	36125		
2623708004	Dup-2	SM 4500-P	36125		
2623708005	FBL 092519	SM 4500-P	36125		
2623708006	EQBL 092519	SM 4500-P	36125		
2623708002	BGWC-12	SM 4500-S2 D	36186		
2623708003	BGWC-14	SM 4500-S2 D	36186		
2623708004	Dup-2	SM 4500-S2 D	36186		
2623708005	FBL 092519	SM 4500-S2 D	36186		
2623708006	EQBL 092519	SM 4500-S2 D	36186		
2623708005	FBL 092519	EPA 353.2 Rev 2.0 1993	504958		
2623708006	EQBL 092519	EPA 353.2 Rev 2.0 1993	504416		
2623708001	BGWC-10	SM 5310B	575017		
2623708002	BGWC-12	SM 5310B	575017		
2623708003	BGWC-14	SM 5310B	575017		
2623708004	Dup-2	SM 5310B	575017		
2623708005	FBL 092519	SM 5310B	575017		
2623708006	EQBL 092519	SM 5310B	575017		

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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:	Johu Abraham	Attention:	
Address:	2480 Maner Road Atlanta, GA 30339	Copy To:	Geosynbic	Company Name:	
Email:	jabraham@geouthortco.com	Purchase Order #:	SCS10382775	Address:	
Phone:	(404)506-7239	Project Name:	Plant Bowen Additional Parameters	Pace Quote:	
Requested Due Date:		Project #:	Ash Pond	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
				Pace Profile #:	315.5
				Regulatory Agency:	
				State / Location:	GA

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Requested Analysis Filtered (Y/N)										SAMPLE CONDITIONS										
			START DATE	END DATE				TIME	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME											
1	DW	DW	9/25/19	0915	G	W5G	4	Unpreserved	H2SO4	HNO3	HCl	NaOH + Zinc Acetate	Na2S2O3	Methanol	Other	Metals (6010) *	Metals (6010/6020) **	Ortho Phosphorus (filtered)	Sulfide	Alkalinity, Bicarb	DOC (filtered)	TDS, NO3, NO2	Ammonia	TKN	TSS	BOD	Oil/Grease	Residual Chlorine (Y/N)
2	WW	WW	9/25/19	1405	G	W5G	6	Unpreserved	H2SO4	HNO3	HCl	NaOH + Zinc Acetate	Na2S2O3	Methanol	Other	Metals (6010) *	Metals (6010/6020) **	Ortho Phosphorus (filtered)	Sulfide	Alkalinity, Bicarb	DOC (filtered)	TDS, NO3, NO2	Ammonia	TKN	TSS	BOD	Oil/Grease	Residual Chlorine (Y/N)
3	SL	SL	9/25/19	1348	G	W5G	6	Unpreserved	H2SO4	HNO3	HCl	NaOH + Zinc Acetate	Na2S2O3	Methanol	Other	Metals (6010) *	Metals (6010/6020) **	Ortho Phosphorus (filtered)	Sulfide	Alkalinity, Bicarb	DOC (filtered)	TDS, NO3, NO2	Ammonia	TKN	TSS	BOD	Oil/Grease	Residual Chlorine (Y/N)
4	WP	WP	9/25/19	---	G	W5G	6	Unpreserved	H2SO4	HNO3	HCl	NaOH + Zinc Acetate	Na2S2O3	Methanol	Other	Metals (6010) *	Metals (6010/6020) **	Ortho Phosphorus (filtered)	Sulfide	Alkalinity, Bicarb	DOC (filtered)	TDS, NO3, NO2	Ammonia	TKN	TSS	BOD	Oil/Grease	Residual Chlorine (Y/N)
5	AR	AR	9/25/19	1624	G	W5G	6	Unpreserved	H2SO4	HNO3	HCl	NaOH + Zinc Acetate	Na2S2O3	Methanol	Other	Metals (6010) *	Metals (6010/6020) **	Ortho Phosphorus (filtered)	Sulfide	Alkalinity, Bicarb	DOC (filtered)	TDS, NO3, NO2	Ammonia	TKN	TSS	BOD	Oil/Grease	Residual Chlorine (Y/N)
6	OT	OT	9/25/19	1631	G	W5G	6	Unpreserved	H2SO4	HNO3	HCl	NaOH + Zinc Acetate	Na2S2O3	Methanol	Other	Metals (6010) *	Metals (6010/6020) **	Ortho Phosphorus (filtered)	Sulfide	Alkalinity, Bicarb	DOC (filtered)	TDS, NO3, NO2	Ammonia	TKN	TSS	BOD	Oil/Grease	Residual Chlorine (Y/N)

REQUIREMENTS BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Murphy Campbell	9/26	5:00	Cindy Mandry	9/26	5:00	
Cindy Mandry	9/27	1223	Charles Hunter	9/27	1203	
				9/27/19	1315	5:00

NO# : 2623708

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Audrey Campbell, Joe Booth

SIGNATURE of SAMPLER: *Audrey Campbell*

DATE Signed: 9/25/19

TEMP in C

Received on

Ice (Y/N)

Sealed (Y/N)

Cooler (Y/N)

Samples (Y/N)





Sample Condition Upon Receipt

WO#: 2623708

Client Name: GABwedCCR

PM: BM Due Date: 10/04/19
CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Face Other
Tracking #:

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 214 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 5.0C Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6C

Proj. Due Date
Proj. Name

Date and Initials of person examining contents: 9/27/19

Table with 16 rows of checklist items including Chain of Custody Present, Samples Arrived within Hold Time, Short Hold Time Analysis, etc.

Handwritten note: BGWL-10 arrived out of hold for O-phos The rest went out of hold during the bg process

Handwritten note: DOC + O-phos field filtered

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 11, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623718

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Atlanta Certification IDs

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

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

Arizona Certification# AZ0819

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079

Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity

Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maryland Certification: #346

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264

South Carolina Certification: #96042001

Tennessee Certification #: TN02974

Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

Asheville Certification IDs

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 Bowen Ash Pond

Pace Project No.: 2623718

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623718001	BGWC-7	Water	09/24/19 08:58	09/27/19 13:15
2623718002	BGWC-8	Water	09/24/19 10:15	09/27/19 13:15
2623718003	BGWC-9	Water	09/24/19 12:05	09/27/19 13:15
2623718004	BGWC-31	Water	09/24/19 13:36	09/27/19 13:15
2623718005	BGWC-34D	Water	09/24/19 10:45	09/27/19 13:15
2623718006	FBL092419	Water	09/24/19 15:30	09/27/19 13:15
2623718007	EQBL092419	Water	09/24/19 15:35	09/27/19 13:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623718001	BGWC-7	EPA 6010	ATC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623718002	BGWC-8	EPA 6010	ATC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623718003	BGWC-9	EPA 6010	ATC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623718004	BGWC-31	EPA 6010	ATC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623718005	BGWC-34D	EPA 6010	ATC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623718006	FBL092419	EPA 6010	ATC	9	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 2540D	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623718007	EQBL092419	SM 5310B	SA1	1	PASI-O
		EPA 6010	CS2	9	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 2540D	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		SM 5310B	SA1	1	PASI-O

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Sample: BGWC-7		Lab ID: 2623718001		Collected: 09/24/19 08:58	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	1.1	mg/L	0.20	0.046	1	10/08/19 14:00	10/09/19 10:32	7439-89-6		
Magnesium	42.2	mg/L	2.5	0.42	1	10/08/19 14:00	10/09/19 10:32	7439-95-4		
Manganese	0.033	mg/L	0.025	0.0021	1	10/08/19 14:00	10/09/19 10:32	7439-96-5		
Phosphorus	ND	mg/L	0.22	0.070	1	10/08/19 14:00	10/09/19 10:32	7723-14-0	N2	
Potassium	2.4J	mg/L	5.0	0.75	1	10/08/19 14:00	10/09/19 10:32	7440-09-7		
Sodium	17.8	mg/L	10.0	1.4	1	10/08/19 14:00	10/09/19 10:32	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	276	mg/L	20.0	20.0	1		10/03/19 14:00			
Alkalinity, Total as CaCO ₃	276	mg/L	20.0	20.0	1		10/03/19 14:00			
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/02/19 23:29			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Sample: BGWC-8		Lab ID: 2623718002		Collected: 09/24/19 10:15		Received: 09/27/19 13:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	0.028J	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 10:36	7439-89-6	
Magnesium	14.7	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 10:36	7439-95-4	
Manganese	ND	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 10:36	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 10:36	7723-14-0	N2
Potassium	2.5	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 10:36	7440-09-7	
Sodium	4.5	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 10:36	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	143	mg/L	20.0	20.0	1		10/03/19 14:06		
Alkalinity, Total as CaCO ₃	143	mg/L	20.0	20.0	1		10/03/19 14:06		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	0.55J	mg/L	1.0	0.50	1		10/03/19 00:49		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Sample: BGWC-9		Lab ID: 2623718003		Collected: 09/24/19 12:05	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.60	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 10:43	7439-89-6		
Magnesium	24.0	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 10:43	7439-95-4		
Manganese	0.12	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 10:43	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 10:43	7723-14-0	N2	
Potassium	2.7	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 10:43	7440-09-7		
Sodium	24.0	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 10:43	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	215	mg/L	20.0	20.0	1		10/03/19 14:13			
Alkalinity, Total as CaCO ₃	215	mg/L	20.0	20.0	1		10/03/19 14:13			
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	1.3	mg/L	1.0	0.50	1		10/03/19 01:21			

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Sample: BGWC-31 Lab ID: 2623718004 Collected: 09/24/19 13:36 Received: 09/27/19 13:15 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Iron	2.0	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 10:46	7439-89-6	
Magnesium	36.7	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 10:46	7439-95-4	
Manganese	0.17	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 10:46	7439-96-5	
Phosphorus	0.053	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 10:46	7723-14-0	N2
Potassium	1.2	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 10:46	7440-09-7	
Sodium	8.8	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 10:46	7440-23-5	
2320B Alkalinity Analytical Method: SM 2320B									
Alkalinity, Bicarbonate (CaCO ₃)	184	mg/L	20.0	20.0	1		10/03/19 14:15		
Alkalinity, Total as CaCO ₃	184	mg/L	20.0	20.0	1		10/03/19 14:15		
5310B Dissolved Organic Carbon Analytical Method: SM 5310B									
Dissolved Organic Carbon	1.3	mg/L	1.0	0.50	1		10/03/19 01:36		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Sample: BGWC-34D		Lab ID: 2623718005		Collected: 09/24/19 10:45	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.70	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 10:39	7439-89-6		
Magnesium	31.9	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 10:39	7439-95-4		
Manganese	0.024	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 10:39	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 10:39	7723-14-0	N2	
Potassium	1.8	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 10:39	7440-09-7		
Sodium	5.7	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 10:39	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	253	mg/L	20.0	20.0	1		10/03/19 14:19			
Alkalinity, Total as CaCO ₃	253	mg/L	20.0	20.0	1		10/03/19 14:19			
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	2.1	mg/L	1.0	0.50	1		10/03/19 01:07			

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Sample: FBL092419		Lab ID: 2623718006		Collected: 09/24/19 15:30	Received: 09/27/19 13:15	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	ND	ug/L	5.0	2.6	1	10/08/19 14:00	10/09/19 10:49	7440-50-8		
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 14:00	10/09/19 10:49	7439-89-6		
Magnesium	ND	mg/L	0.50	0.084	1	10/08/19 14:00	10/09/19 10:49	7439-95-4		
Manganese	ND	mg/L	0.0050	0.00042	1	10/08/19 14:00	10/09/19 10:49	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:00	10/09/19 10:49	7723-14-0	N2	
Potassium	ND	mg/L	1.0	0.15	1	10/08/19 14:00	10/09/19 10:49	7440-09-7		
Sodium	ND	mg/L	2.0	0.27	1	10/08/19 14:00	10/09/19 10:49	7440-23-5		
Tot Hardness asCaCO3 (SM 2340B)	ND	ug/L	3210	506	1	10/08/19 14:00	10/09/19 10:49			
Zinc	ND	ug/L	20.0	11.0	1	10/08/19 14:00	10/09/19 10:49	7440-66-6		
2320B Alkalinity Low Level		Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	1.0	1.0	1		10/04/19 15:12			
Alkalinity, Total as CaCO3	ND	mg/L	1.0	1.0	1		10/04/19 15:12			
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/01/19 19:35			
2540D Total Suspended Solids		Analytical Method: SM 2540D								
Total Suspended Solids	ND	mg/L	10.0	10.0	1		10/08/19 16:31		H1	
300.0 IC anions 48hr		Analytical Method: EPA 300.0 Rev 2.1 1993								
Nitrate as N	ND	mg/L	0.10	0.060	1		10/05/19 22:10	14797-55-8	H3	
Nitrate-Nitrite (as N)	ND	mg/L	0.20	0.11	1		10/05/19 22:10	7727-37-9	H3	
Nitrite as N	ND	mg/L	0.10	0.050	1		10/05/19 22:10	14797-65-0	H3	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/03/19 01:50			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623718

Sample: EQBL092419 Lab ID: 2623718007 Collected: 09/24/19 15:35 Received: 09/27/19 13:15 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Copper	ND	ug/L	5.0	2.6	1	10/08/19 16:13	10/09/19 13:55	7440-50-8	
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 16:13	10/09/19 13:55	7439-89-6	
Magnesium	ND	mg/L	0.50	0.084	1	10/08/19 16:13	10/09/19 13:55	7439-95-4	
Manganese	ND	mg/L	0.0050	0.00042	1	10/08/19 16:13	10/09/19 13:55	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 16:13	10/09/19 13:55	7723-14-0	N2
Potassium	ND	mg/L	1.0	0.15	1	10/08/19 16:13	10/09/19 13:55	7440-09-7	
Sodium	ND	mg/L	2.0	0.27	1	10/08/19 16:13	10/09/19 13:55	7440-23-5	
Tot Hardness asCaCO3 (SM 2340B)	ND	ug/L	3210	506	1	10/08/19 16:13	10/09/19 13:55		
Zinc	ND	ug/L	20.0	11.0	1	10/08/19 16:13	10/09/19 13:55	7440-66-6	
2320B Alkalinity Low Level Analytical Method: SM 2320B									
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	1.0	1.0	1		10/04/19 15:16		
Alkalinity, Total as CaCO3	ND	mg/L	1.0	1.0	1		10/04/19 15:16		
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/01/19 19:37		
2540D Total Suspended Solids Analytical Method: SM 2540D									
Total Suspended Solids	ND	mg/L	10.0	10.0	1		10/08/19 16:31		H1
300.0 IC anions 48hr Analytical Method: EPA 300.0 Rev 2.1 1993									
Nitrate as N	ND	mg/L	0.10	0.060	1		10/05/19 22:25	14797-55-8	H3
Nitrate-Nitrite (as N)	ND	mg/L	0.20	0.11	1		10/05/19 22:25	7727-37-9	H3
Nitrite as N	ND	mg/L	0.10	0.050	1		10/05/19 22:25	14797-65-0	H3
5310B Dissolved Organic Carbon Analytical Method: SM 5310B									
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/03/19 02:05		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623718

QC Batch: 576597 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2623718001, 2623718002, 2623718003, 2623718004, 2623718005, 2623718006

METHOD BLANK: 3133444 Matrix: Water
Associated Lab Samples: 2623718001, 2623718002, 2623718003, 2623718004, 2623718005, 2623718006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Copper	ug/L	ND	5.0	2.6	10/09/19 08:23	
Iron	mg/L	ND	0.040	0.0092	10/09/19 08:23	
Magnesium	mg/L	ND	0.50	0.084	10/09/19 08:23	
Manganese	mg/L	ND	0.0050	0.00042	10/09/19 08:23	
Phosphorus	mg/L	ND	0.045	0.014	10/09/19 08:23	N2
Potassium	mg/L	ND	1.0	0.15	10/09/19 08:23	
Sodium	mg/L	ND	2.0	0.27	10/09/19 08:23	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	ND	3210	506	10/09/19 08:23	
Zinc	ug/L	ND	20.0	11.0	10/09/19 08:23	

LABORATORY CONTROL SAMPLE: 3133445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	250	240	96	80-120	
Iron	mg/L	2.5	2.5	101	80-120	
Magnesium	mg/L	12.5	12.4	100	80-120	
Manganese	mg/L	0.25	0.25	101	80-120	
Phosphorus	mg/L	0.25	0.24	95	80-120	N2
Potassium	mg/L	12.5	12.2	98	80-120	
Sodium	mg/L	12.5	12.4	100	80-120	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	82700	82600	100	80-120	
Zinc	ug/L	1250	1280	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3133609 3133610

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623708004 Result	Spike Conc.	Spike Conc.	MS Result						
Copper	ug/L	ND	250	250	268	259	107	104	75-125	3	20
Iron	mg/L	0.049	2.5	2.5	2.7	2.7	104	104	75-125	0	20
Magnesium	mg/L	49.1	12.5	12.5	61.6	62.2	100	105	75-125	1	20
Manganese	mg/L	ND	0.25	0.25	0.27	0.26	107	104	75-125	3	20
Phosphorus	mg/L	ND	0.25	0.25	0.27	0.26	106	103	75-125	3	20
Potassium	mg/L	2.4	12.5	12.5	15.5	15.6	105	105	75-125	1	20
Sodium	mg/L	24.4	12.5	12.5	37.3	37.8	104	107	75-125	1	20
Tot Hardness asCaCO3 (SM 2340B)	ug/L	526000	82700	82700	600000	603000	90	93	75-125	0	20
Zinc	ug/L	ND	1250	1250	1310	1270	105	102	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.

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623718

QC Batch: 576681 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2623718007

METHOD BLANK: 3134011 Matrix: Water
Associated Lab Samples: 2623718007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Iron	mg/L	ND	0.040	0.0092	10/09/19 12:43	
Magnesium	mg/L	ND	0.50	0.084	10/09/19 12:43	
Manganese	mg/L	ND	0.0050	0.00042	10/09/19 12:43	
Phosphorus	mg/L	ND	0.045	0.014	10/09/19 12:43	N2
Potassium	mg/L	ND	1.0	0.15	10/09/19 12:43	
Sodium	mg/L	ND	2.0	0.27	10/09/19 12:43	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	ND	3210	506	10/09/19 12:43	
Zinc	ug/L	ND	20.0	11.0	10/09/19 12:43	

LABORATORY CONTROL SAMPLE: 3134012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	mg/L	2.5	2.5	98	80-120	
Magnesium	mg/L	12.5	12.2	98	80-120	
Manganese	mg/L	0.25	0.25	98	80-120	
Phosphorus	mg/L	0.25	0.23	92	80-120	N2
Potassium	mg/L	12.5	12.1	97	80-120	
Sodium	mg/L	12.5	12.3	98	80-120	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	82700	81100	98	80-120	
Zinc	ug/L	1250	1260	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3134013 3134014

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623635003 Result	Spike Conc.	Spike Conc.	Result						
Iron	mg/L	3.1	2.5	2.5	5.6	5.6	98	100	75-125	1	20
Magnesium	mg/L	8.6	12.5	12.5	21.1	21.2	99	101	75-125	1	20
Manganese	mg/L	0.17	0.25	0.25	0.42	0.42	98	99	75-125	1	20
Phosphorus	mg/L	0.083	0.25	0.25	0.33	0.33	98	99	75-125	1	20 N2
Potassium	mg/L	0.31J	12.5	12.5	13.1	13.1	102	103	75-125	0	20
Sodium	mg/L	11.0	12.5	12.5	23.7	23.8	101	103	75-125	1	20
Tot Hardness asCaCO3 (SM 2340B)	ug/L	337000	82700	82700	418000	421000	99	102	75-125	1	20
Zinc	ug/L		1250	1250	1240	1250	99	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 Bowen Ash Pond

Pace Project No.: 2623718

QC Batch: 36366 Analysis Method: SM 2320B

QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity

Associated Lab Samples: 2623718001, 2623718002, 2623718003, 2623718004, 2623718005

METHOD BLANK: 164227

Matrix: Water

Associated Lab Samples: 2623718001, 2623718002, 2623718003, 2623718004, 2623718005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	20.0	20.0	10/03/19 11:56	

LABORATORY CONTROL SAMPLE: 164228

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	100	96.0	96	85-115	

SAMPLE DUPLICATE: 164468

Parameter	Units	2623706006 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	173	172	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

QC Batch: 36503

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity, Low Level

Associated Lab Samples: 2623718006, 2623718007

METHOD BLANK: 164938

Matrix: Water

Associated Lab Samples: 2623718006, 2623718007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	1.0	1.0	10/04/19 14:44	

LABORATORY CONTROL SAMPLE: 164939

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	47.5	95	85-115	

SAMPLE DUPLICATE: 164940

Parameter	Units	2623704001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	ND		10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

QC Batch:	36295	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	2623718006, 2623718007		

LABORATORY CONTROL SAMPLE: 163905

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	379	95	84-108	

SAMPLE DUPLICATE: 163906

Parameter	Units	2623719002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	193	190	2	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

QC Batch: 36634

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D Total Suspended Solids

Associated Lab Samples: 2623718006, 2623718007

METHOD BLANK: 165502

Matrix: Water

Associated Lab Samples: 2623718006, 2623718007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	5.0	10/08/19 16:31	

LABORATORY CONTROL SAMPLE: 165503

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	99.0	99	90-110	

SAMPLE DUPLICATE: 165504

Parameter	Units	2622860001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND			10 H1

SAMPLE DUPLICATE: 165505

Parameter	Units	2623854001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	163	190	15		10 D6

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

QC Batch: 508795

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: 2623718006, 2623718007

METHOD BLANK: 2731096

Matrix: Water

Associated Lab Samples: 2623718006, 2623718007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.10	0.060	10/05/19 19:16	
Nitrate-Nitrite (as N)	mg/L	ND	0.20	0.11	10/05/19 19:16	
Nitrite as N	mg/L	ND	0.10	0.050	10/05/19 19:16	

LABORATORY CONTROL SAMPLE: 2731097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	2.5	2.5	99	90-110	
Nitrate-Nitrite (as N)	mg/L	5	4.9	99	90-110	
Nitrite as N	mg/L	2.5	2.5	99	90-110	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623718

QC Batch: 575018 Analysis Method: SM 5310B
QC Batch Method: SM 5310B Analysis Description: 5310B Dissolved Organic Carbon
Associated Lab Samples: 2623718001, 2623718002, 2623718003, 2623718004, 2623718005, 2623718006, 2623718007

METHOD BLANK: 3124995 Matrix: Water
Associated Lab Samples: 2623718001, 2623718002, 2623718003, 2623718004, 2623718005, 2623718006, 2623718007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/02/19 23:00	

LABORATORY CONTROL SAMPLE: 3124996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	18.9	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124997 3124998

Parameter	Units	3124997		3124998		% Rec	% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		2623718001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Dissolved Organic Carbon	mg/L	ND	20	20	19.4	19.4	95	95	80-120	0	20		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3124999 3125000

Parameter	Units	3124999		3125000		% Rec	% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		2623707003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Dissolved Organic Carbon	mg/L	ND	20	20	19.9	19.9	97	97	80-120	0	20		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623718

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
PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

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

H1 Analysis conducted outside the EPA method holding time.

H3 Sample was received or analysis requested beyond the recognized method holding time.

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2623718

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623718001	BGWC-7	EPA 3010	576597	EPA 6010	576709
2623718002	BGWC-8	EPA 3010	576597	EPA 6010	576709
2623718003	BGWC-9	EPA 3010	576597	EPA 6010	576709
2623718004	BGWC-31	EPA 3010	576597	EPA 6010	576709
2623718005	BGWC-34D	EPA 3010	576597	EPA 6010	576709
2623718006	FBL092419	EPA 3010	576597	EPA 6010	576709
2623718007	EQBL092419	EPA 3010	576681	EPA 6010	576722
2623718001	BGWC-7	SM 2320B	36366		
2623718002	BGWC-8	SM 2320B	36366		
2623718003	BGWC-9	SM 2320B	36366		
2623718004	BGWC-31	SM 2320B	36366		
2623718005	BGWC-34D	SM 2320B	36366		
2623718006	FBL092419	SM 2320B	36503		
2623718007	EQBL092419	SM 2320B	36503		
2623718006	FBL092419	SM 2540C	36295		
2623718007	EQBL092419	SM 2540C	36295		
2623718006	FBL092419	SM 2540D	36634		
2623718007	EQBL092419	SM 2540D	36634		
2623718006	FBL092419	EPA 300.0 Rev 2.1 1993	508795		
2623718007	EQBL092419	EPA 300.0 Rev 2.1 1993	508795		
2623718001	BGWC-7	SM 5310B	575018		
2623718002	BGWC-8	SM 5310B	575018		
2623718003	BGWC-9	SM 5310B	575018		
2623718004	BGWC-31	SM 5310B	575018		
2623718005	BGWC-34D	SM 5310B	575018		
2623718006	FBL092419	SM 5310B	575018		
2623718007	EQBL092419	SM 5310B	575018		

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
 Report To: Jofu Abraham
 Copy To: Geosyntec
 Address: 2480 Maner Road
 Atlanta, GA 30339
 Email: jabraham@southernco.com
 Purchase Order #: SCS10382775
 Project Name: Plant Bowen Additional Parameters
 Project #: Ash Pond
 Phone: (404)506-7239
 Fax:
 Requested Due Date:

Section B

Invoice Information:

Attention:
 Company Name:
 Address:
 Pace Quote:
 Pace Project Manager: betsy.mcdaniel@paceelabs.com
 State / Location: GA
 Pace Profile #: 315.5

Section C

Page: 1 Of 1

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	# OF CONTAINERS	PRESERVATIVES											ANALYSES TEST						OTHER	TEMP IN °C	RECEIVED ON	SAFETY	INSTRUMENT			
			START DATE	END DATE				H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Unpreserved	Meths (G010)	Meths (G010/5020)	Ortho Phosphorus (filtered)	Sulfide	Alkalinity, Bicarb	DOC (filtered)	TDS, NO3, NO2	Ammonia	TKN	TSS						BOD	Oil/Grease	Residual Chlorine (Y/N)
1	WW	G	9/24/11	0858		4	1	2													X	X										
2	WW	G	9/24/11	1015		4	1	2													X	X										
3	WW	G	9/24/11	1205		4	1	2													X	X										
4	WW	G	9/24/11	1386		4	1	2													X	X										
5	WW	G	9/24/11	1045		4	1	2													X	X										
6	WW	G	9/24/11	1530		4	1	2													X	X										
7	WW	G	9/24/11	1535		4	1	2													X	X										
8																																
9																																
10																																
11																																
12																																

ADDITIONAL COMMENTS
 (6010) Fe, Mg, Mn, P, K, Ni
 (6010) Fe, Mg, Mn, P, K, Na, Hardness (6020) Cu, Zn

RELINQUISHED BY / AFFILIATION
 Audrey Crafton
 Cindy Mards

RECEIVED BY / AFFILIATION
 Cindy Mards
 Audrey Crafton

DATE
 9/26 5:00
 9/27 12:23
 9/27 13:15

TIME
 5:00
 12:23
 1:35

SAMPLE CONDITIONS
 5:00 X

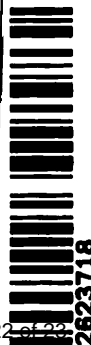
TEMP IN °C

RECEIVED ON

SAFETY

INSTRUMENT

NO# : 2623718



2623718

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Audrey Crafton, Joe Booth
 SIGNATURE of SAMPLER: Audrey Crafton
 DATE Signed: 9/25/11

Face Analytical

Client Name: E-A Power

PM: BM

Due Date: 10/04/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Optional:
Proj. Due Date:
Proj. Name:

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

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 214
Cooler Temperature 5.0°C
Temp should be above freezing to 6°C

Type of Ice: Wet Blue None Samples on ice, cooling process has begun
Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/27/19 [Signature]

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 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:

Person Contacted: _____ Date/Time: _____

Field Data Required? Y / N

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 Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

October 04, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623810

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623810

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623810

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623810001	BGWC-31	Water	10/01/19 09:58	10/01/19 16:30

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623810

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623810001	BGWC-31	SM 4500-P	JAD	1
		SM 4500-S2 D	KN	1

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623810

Sample: BGWC-31		Lab ID: 2623810001		Collected: 10/01/19 09:58	Received: 10/01/19 16:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P							
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/02/19 12:32		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D							
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 17:06	18496-25-8	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623810

QC Batch: 36329	Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P	Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623810001	

METHOD BLANK: 164011 Matrix: Water

Associated Lab Samples: 2623810001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	10/02/19 12:29	

LABORATORY CONTROL SAMPLE: 164012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.51	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164013 164014

Parameter	Units	2623811001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.52	0.52	103	102	80-120	1	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 Bowen Ash Pond

Pace Project No.: 2623810

QC Batch: 36501	Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D	Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623810001	

METHOD BLANK: 164930 Matrix: Water

Associated Lab Samples: 2623810001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	10/04/19 15:41	

LABORATORY CONTROL SAMPLE: 164931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164932 164933

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623773004 Result	Spike Conc.	Spike Conc.	Result						
Sulfide	mg/L	ND	0.5	0.5	0.42	0.42	85	85	30-129	0	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.

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623810

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2623810

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623810001	BGWC-31	SM 4500-P	36329		
2623810001	BGWC-31	SM 4500-S2 D	36501		

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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:	Jehu Abraham	Attention:	
Address:	2480 Mayer Road	Copy To:	Geosyntec	Company Name:	
Email:	jabraham@geopower.com	Purchase Order #:	SCS10382775	Trace Order #:	
Phone:	(404)506-7239	Project Name:	Plant Bowen Additional Parameters	Trace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:		Project #:	Ash Pond	Trace Profile #:	315.5
			State / Location GA		
			Regulatory Agency		

Page: | Of |

ITEM #	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	BGWC - 31	G	10/11/19	0958								
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

WO#: 2623810

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP In C	Received on	Ice (Y/N)	Custody	Cooled (Y/N)	Samples Intact (Y/N)
Jehu Abraham	10/11/19	1400	Jehu Abraham	10/11/19	1400						
Jehu Abraham	10/11/19	1515	M. Washington	10-11-19	15:17						
M. Washington	10-11-19	16:30	M. Washington	10/11/19	16:30	2.0					

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Joe Booth
 SIGNATURE of SAMPLER: *[Signature]*
 DATE Signed: 10/11/19



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: **2623810**

PM: BM Due Date: 10/08/19

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 2.0 Biological Tissue is Frozen: Yes No Samples on ice, cooling process has begun

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/01/19 ms

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 checked="" type="checkbox"/> Yes <input 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input 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: _____

November 11, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623811

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Atlanta Certification IDs

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

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

Arizona Certification# AZ0819

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

Florida Certification #: E83079

Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity

Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maryland Certification: #346

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264

South Carolina Certification: #96042001

Tennessee Certification #: TN02974

Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623811001	BGWA-2	Water	09/30/19 14:13	10/01/19 16:30
2623811002	BGWA-6	Water	09/30/19 15:14	10/01/19 16:30
2623811003	BGWC-21	Water	09/30/19 09:40	10/01/19 16:30
2623811004	BGWC-24	Water	09/30/19 11:25	10/01/19 16:30
2623811005	BGWC-25	Water	09/30/19 12:18	10/01/19 16:30
2623811006	BGWA-29	Water	09/30/19 13:42	10/01/19 16:30
2623811007	Dup-3	Water	09/30/19 00:00	10/01/19 16:30
2623811008	FBL 093019	Water	09/30/19 15:20	10/01/19 16:30
2623811009	EQBL 093019	Water	09/30/19 15:25	10/01/19 16:30

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond
Pace Project No.: 2623811

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623811001	BGWA-2	SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
2623811002	BGWA-6	SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
2623811003	BGWC-21	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623811004	BGWC-24	EPA 6010	CS2, LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623811005	BGWC-25	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623811006	BGWA-29	SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
2623811007	Dup-3	EPA 6010	LEC	6	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 4500-P	MWB	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623811008	FBL 093019	EPA 6010	LEC	9	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		SM 2540D	ALW	1	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		EPA 300.0	MWB	2	PASI-GA
		SM 5310B	SA1	1	PASI-O
2623811009	EQBL 093019	EPA 6010	LEC	9	PASI-O
		SM 2320B	S1A	2	PASI-GA
		SM 2540C	ALW	1	PASI-GA

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 2540D	ALW	1	PASI-GA
		SM 4500-P	JAD	1	PASI-GA
		SM 4500-S2 D	KN	1	PASI-GA
		EPA 300.0	MWB	2	PASI-GA
		SM 5310B	SA1	1	PASI-O

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Sample: BGWA-2		Lab ID: 2623811001		Collected: 09/30/19 14:13	Received: 10/01/19 16:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/02/19 12:32		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 16:13	18496-25-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Sample: BGWA-6		Lab ID: 2623811002		Collected: 09/30/19 15:14	Received: 10/01/19 16:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/02/19 12:35		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 16:14	18496-25-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623811

Sample: BGWC-21		Lab ID: 2623811003		Collected: 09/30/19 09:40	Received: 10/01/19 16:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	0.080	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 22:25	7439-89-6	
Magnesium	27.4	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 22:25	7439-95-4	
Manganese	0.052	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 22:25	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 22:25	7723-14-0	N2
Potassium	1.5	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 22:25	7440-09-7	
Sodium	2.4	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 22:25	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	162	mg/L	20.0	20.0	1		10/04/19 13:15		
Alkalinity, Total as CaCO ₃	162	mg/L	20.0	20.0	1		10/04/19 13:15		
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P							
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 20:56		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D							
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 16:15	18496-25-8	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/05/19 07:18		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Sample: BGWC-24		Lab ID: 2623811004		Collected: 09/30/19 11:25	Received: 10/01/19 16:30	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	0.010J	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 22:29	7439-89-6		
Magnesium	186	mg/L	10.0	1.7	20	10/08/19 14:47	10/10/19 13:53	7439-95-4		
Manganese	5.5	mg/L	0.10	0.0084	20	10/08/19 14:47	10/10/19 13:53	7439-96-5		
Phosphorus	0.43	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 22:29	7723-14-0	N2	
Potassium	11.4	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 22:29	7440-09-7		
Sodium	31.7	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 22:29	7440-23-5		
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	155	mg/L	20.0	20.0	1		10/04/19 13:26			
Alkalinity, Total as CaCO ₃	155	mg/L	20.0	20.0	1		10/04/19 13:26			
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	0.81	mg/L	0.20	0.20	10		10/01/19 20:57			
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 16:16	18496-25-8		
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	0.96J	mg/L	1.0	0.50	1		10/05/19 07:36			

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Sample: BGWC-25		Lab ID: 2623811005		Collected: 09/30/19 12:18		Received: 10/01/19 16:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	0.36	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 22:44	7439-89-6	
Magnesium	24.4	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 22:44	7439-95-4	
Manganese	0.29	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 22:44	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 22:44	7723-14-0	N2
Potassium	0.84J	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 22:44	7440-09-7	
Sodium	1.5J	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 22:44	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	218	mg/L	20.0	20.0	1		10/04/19 13:34		
Alkalinity, Total as CaCO ₃	218	mg/L	20.0	20.0	1		10/04/19 13:34		
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P							
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 20:57		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D							
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 16:16	18496-25-8	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/05/19 07:51		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Sample: BGWA-29		Lab ID: 2623811006		Collected: 09/30/19 13:42	Received: 10/01/19 16:30	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500PE Ortho Phosphorus	Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/02/19 12:35		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 16:18	18496-25-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Sample: Dup-3		Lab ID: 2623811007		Collected: 09/30/19 00:00		Received: 10/01/19 16:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	0.077	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 22:20	7439-89-6	
Magnesium	27.4	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 22:20	7439-95-4	
Manganese	0.059	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 22:20	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 22:20	7723-14-0	N2
Potassium	1.5	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 22:20	7440-09-7	
Sodium	2.2	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 22:20	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	165	mg/L	20.0	20.0	1		10/04/19 13:40		
Alkalinity, Total as CaCO ₃	165	mg/L	20.0	20.0	1		10/04/19 13:40		
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P							
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/01/19 20:54		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D							
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 16:18	18496-25-8	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/05/19 06:38		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623811

Sample: FBL 093019		Lab ID: 2623811008		Collected: 09/30/19 15:20	Received: 10/01/19 16:30	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Copper	ND	ug/L	5.0	2.6	1	10/08/19 14:47	10/09/19 22:48	7440-50-8		
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 22:48	7439-89-6		
Magnesium	ND	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 22:48	7439-95-4		
Manganese	ND	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 22:48	7439-96-5		
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 22:48	7723-14-0	N2	
Potassium	ND	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 22:48	7440-09-7		
Sodium	ND	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 22:48	7440-23-5		
Tot Hardness asCaCO3 (SM 2340B)	ND	ug/L	3210	506	1	10/08/19 14:47	10/09/19 22:48			
Zinc	ND	ug/L	20.0	11.0	1	10/08/19 14:47	10/09/19 22:48	7440-66-6		
2320B Alkalinity Low Level		Analytical Method: SM 2320B								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	1.0	1.0	1		10/08/19 12:50			
Alkalinity, Total as CaCO3	ND	mg/L	1.0	1.0	1		10/08/19 12:50			
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	22.0	mg/L	10.0	10.0	1		10/04/19 20:03			
2540D Total Suspended Solids		Analytical Method: SM 2540D								
Total Suspended Solids	ND	mg/L	5.0	5.0	1		10/08/19 16:31		H1	
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P								
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/02/19 12:36			
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D								
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 16:38	18496-25-8		
300.0 IC Anions		Analytical Method: EPA 300.0								
Nitrate as N	0.010J	mg/L	0.050	0.0050	1		10/11/19 08:32	14797-55-8	H1	
Nitrite as N	0.016J	mg/L	0.050	0.011	1		10/11/19 08:32	14797-65-0	B,H1	
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B								
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/05/19 08:43			

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Sample: EQBL 093019		Lab ID: 2623811009		Collected: 09/30/19 15:25		Received: 10/01/19 16:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Copper	ND	ug/L	5.0	2.6	1	10/08/19 14:47	10/09/19 22:53	7440-50-8	
Iron	ND	mg/L	0.040	0.0092	1	10/08/19 14:47	10/09/19 22:53	7439-89-6	
Magnesium	ND	mg/L	0.50	0.084	1	10/08/19 14:47	10/09/19 22:53	7439-95-4	
Manganese	ND	mg/L	0.0050	0.00042	1	10/08/19 14:47	10/09/19 22:53	7439-96-5	
Phosphorus	ND	mg/L	0.045	0.014	1	10/08/19 14:47	10/09/19 22:53	7723-14-0	N2
Potassium	ND	mg/L	1.0	0.15	1	10/08/19 14:47	10/09/19 22:53	7440-09-7	
Sodium	ND	mg/L	2.0	0.27	1	10/08/19 14:47	10/09/19 22:53	7440-23-5	
Tot Hardness asCaCO3 (SM 2340B)	ND	ug/L	3210	506	1	10/08/19 14:47	10/09/19 22:53		
Zinc	ND	ug/L	20.0	11.0	1	10/08/19 14:47	10/09/19 22:53	7440-66-6	
2320B Alkalinity Low Level		Analytical Method: SM 2320B							
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	1.0	1.0	1		10/08/19 12:53		
Alkalinity, Total as CaCO3	ND	mg/L	1.0	1.0	1		10/08/19 12:53		
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	21.0	mg/L	10.0	10.0	1		10/04/19 20:03		
2540D Total Suspended Solids		Analytical Method: SM 2540D							
Total Suspended Solids	ND	mg/L	5.0	5.0	1		10/08/19 16:31		H1
4500PE Ortho Phosphorus		Analytical Method: SM 4500-P							
Orthophosphate as P	ND	mg/L	0.020	0.020	1		10/02/19 12:37		
4500S2D Sulfide Water		Analytical Method: SM 4500-S2 D							
Sulfide	ND	mg/L	0.20	0.20	1		10/04/19 17:06	18496-25-8	
300.0 IC Anions		Analytical Method: EPA 300.0							
Nitrate as N	0.020J	mg/L	0.050	0.0050	1		10/11/19 09:41	14797-55-8	H1
Nitrite as N	0.017J	mg/L	0.050	0.011	1		10/11/19 09:41	14797-65-0	B,H1, M1
5310B Dissolved Organic Carbon		Analytical Method: SM 5310B							
Dissolved Organic Carbon	ND	mg/L	1.0	0.50	1		10/05/19 08:57		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

QC Batch: 576632 Analysis Method: EPA 6010
 QC Batch Method: EPA 3010 Analysis Description: 6010 MET
 Associated Lab Samples: 2623811003, 2623811004, 2623811005, 2623811007, 2623811008, 2623811009

METHOD BLANK: 3133743 Matrix: Water
 Associated Lab Samples: 2623811003, 2623811004, 2623811005, 2623811007, 2623811008, 2623811009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Copper	ug/L	ND	5.0	2.6	10/10/19 13:56	
Iron	mg/L	ND	0.040	0.0092	10/10/19 13:56	
Magnesium	mg/L	ND	0.50	0.084	10/10/19 13:56	
Manganese	mg/L	ND	0.0050	0.00042	10/10/19 13:56	
Phosphorus	mg/L	ND	0.045	0.014	10/10/19 13:56	N2
Potassium	mg/L	ND	1.0	0.15	10/10/19 13:56	
Sodium	mg/L	ND	2.0	0.27	10/10/19 13:56	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	ND	3210	506	10/10/19 13:56	
Zinc	ug/L	ND	20.0	11.0	10/10/19 13:56	

LABORATORY CONTROL SAMPLE: 3133744

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Copper	ug/L	250	257	103	80-120	
Iron	mg/L	2.5	2.6	105	80-120	
Magnesium	mg/L	12.5	13.0	104	80-120	
Manganese	mg/L	0.25	0.26	106	80-120	
Phosphorus	mg/L	0.25	0.25	99	80-120	N2
Potassium	mg/L	12.5	12.8	103	80-120	
Sodium	mg/L	12.5	13.2	106	80-120	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	82700	86400	104	80-120	
Zinc	ug/L	1250	1280	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3133745 3133746

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623752004 Result	Spike Conc.	Spike Conc.	MS Result								
Copper	ug/L	ND	250	250	265	260	106	103	75-125	2	20		
Iron	mg/L	0.22	2.5	2.5	2.8	2.8	105	103	75-125	1	20		
Magnesium	mg/L	8.5	12.5	12.5	21.6	21.3	105	103	75-125	2	20		
Manganese	mg/L	0.040	0.25	0.25	0.31	0.30	107	103	75-125	3	20		
Phosphorus	mg/L	0.019J	0.25	0.25	0.28	0.28	103	104	75-125	1	20	N2	
Potassium	mg/L	0.69J	12.5	12.5	13.6	13.5	103	103	75-125	1	20		
Sodium	mg/L	118	12.5	12.5	135	131	130	102	75-125	3	20	M1	
Tot Hardness asCaCO3 (SM 2340B)	ug/L	107000	82700	82700	196000	191000	107	102	75-125	2	20		
Zinc	ug/L	ND	1250	1250	1280	1300	102	104	75-125	2	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

QC Batch: 36486 Analysis Method: SM 2320B
 QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
 Associated Lab Samples: 2623811003, 2623811004, 2623811005, 2623811007

METHOD BLANK: 164845 Matrix: Water
 Associated Lab Samples: 2623811003, 2623811004, 2623811005, 2623811007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	20.0	20.0	10/04/19 12:28	

LABORATORY CONTROL SAMPLE: 164846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	100	102	102	85-115	

SAMPLE DUPLICATE: 164847

Parameter	Units	2623698004 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	153	152	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

QC Batch: 36620

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity, Low Level

Associated Lab Samples: 2623811008, 2623811009

METHOD BLANK: 165408

Matrix: Water

Associated Lab Samples: 2623811008, 2623811009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	1.0	1.0	10/08/19 12:42	

LABORATORY CONTROL SAMPLE: 165409

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	46.0	92	85-115	

SAMPLE DUPLICATE: 165410

Parameter	Units	2623811008 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	ND		10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

QC Batch: 36519 Analysis Method: SM 2540C
 QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
 Associated Lab Samples: 2623811008, 2623811009

LABORATORY CONTROL SAMPLE: 165036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	409	102	84-108	

SAMPLE DUPLICATE: 165037

Parameter	Units	2623748003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	442	458	4	10	

SAMPLE DUPLICATE: 165038

Parameter	Units	2623793003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	475	497	5	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

QC Batch: 36634

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D Total Suspended Solids

Associated Lab Samples: 2623811008, 2623811009

METHOD BLANK: 165502

Matrix: Water

Associated Lab Samples: 2623811008, 2623811009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Suspended Solids	mg/L	ND	5.0	5.0	10/08/19 16:31	

LABORATORY CONTROL SAMPLE: 165503

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	99.0	99	90-110	

SAMPLE DUPLICATE: 165504

Parameter	Units	2622860001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	ND	ND			10 H1

SAMPLE DUPLICATE: 165505

Parameter	Units	2623854001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	163	190	15		10 D6

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

QC Batch: 36288

Analysis Method: SM 4500-P

QC Batch Method: SM 4500-P

Analysis Description: 4500PE Ortho Phosphorus

Associated Lab Samples: 2623811003, 2623811004, 2623811005, 2623811007

METHOD BLANK: 163887

Matrix: Water

Associated Lab Samples: 2623811003, 2623811004, 2623811005, 2623811007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	10/01/19 20:51	

LABORATORY CONTROL SAMPLE: 163888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.52	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163889 163890

Parameter	Units	2623811007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.52	0.49	103	97	80-120	6	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623811

QC Batch: 36329 Analysis Method: SM 4500-P
QC Batch Method: SM 4500-P Analysis Description: 4500PE Ortho Phosphorus
Associated Lab Samples: 2623811001, 2623811002, 2623811006, 2623811008, 2623811009

METHOD BLANK: 164011 Matrix: Water
Associated Lab Samples: 2623811001, 2623811002, 2623811006, 2623811008, 2623811009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Orthophosphate as P	mg/L	ND	0.020	0.020	10/02/19 12:29	

LABORATORY CONTROL SAMPLE: 164012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Orthophosphate as P	mg/L	0.5	0.51	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164013 164014

Parameter	Units	2623811001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Orthophosphate as P	mg/L	ND	0.5	0.5	0.52	0.52	103	102	80-120	1	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623811

QC Batch: 36501 Analysis Method: SM 4500-S2 D
QC Batch Method: SM 4500-S2 D Analysis Description: 4500S2D Sulfide Water
Associated Lab Samples: 2623811001, 2623811002, 2623811003, 2623811004, 2623811005, 2623811006, 2623811007, 2623811008, 2623811009

METHOD BLANK: 164930 Matrix: Water
Associated Lab Samples: 2623811001, 2623811002, 2623811003, 2623811004, 2623811005, 2623811006, 2623811007, 2623811008, 2623811009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.20	0.20	10/04/19 15:41	

LABORATORY CONTROL SAMPLE: 164931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164932 164933

Parameter	Units	2623773004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.42	0.42	85	85	30-129	0	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623811

QC Batch: 36842 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623811008, 2623811009

METHOD BLANK: 166535 Matrix: Water
Associated Lab Samples: 2623811008, 2623811009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.050	0.0050	10/11/19 07:48	
Nitrite as N	mg/L	0.019J	0.050	0.011	10/11/19 07:48	

LABORATORY CONTROL SAMPLE: 166536

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	10	10.7	107	90-110	
Nitrite as N	mg/L	10	10.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 166537 166538

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623811008 Result	Spike Conc.	Spike Conc.	Result						
Nitrate as N	mg/L	0.010J	10	10	10.6	10.7	106	106	90-110	0	15 H1
Nitrite as N	mg/L	0.016J	10	10	10.7	10.7	107	107	90-110	0	15 H1

MATRIX SPIKE SAMPLE: 166539

Parameter	Units	2623811009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	0.020J	10	10.7	107	90-110	H1
Nitrite as N	mg/L	0.017J	10	11.1	111	90-110	H1,M1

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

QC Batch: 575614

Analysis Method: SM 5310B

QC Batch Method: SM 5310B

Analysis Description: 5310B Dissolved Organic Carbon

Associated Lab Samples: 2623811003, 2623811004, 2623811005, 2623811007, 2623811008, 2623811009

METHOD BLANK: 3128950

Matrix: Water

Associated Lab Samples: 2623811003, 2623811004, 2623811005, 2623811007, 2623811008, 2623811009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dissolved Organic Carbon	mg/L	ND	1.0	0.50	10/05/19 06:10	

LABORATORY CONTROL SAMPLE: 3128951

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dissolved Organic Carbon	mg/L	20	18.9	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3128952 3128953

Parameter	Units	2623811007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Dissolved Organic Carbon	mg/L	ND	20	20	19.4	19.3	96	95	80-120	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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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

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-GA Pace Analytical Services - Atlanta, GA

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

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

H1 Analysis conducted outside the EPA method holding time.

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

N2 The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2623811

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623811003	BGWC-21	EPA 3010	576632	EPA 6010	576717
2623811004	BGWC-24	EPA 3010	576632	EPA 6010	576717
2623811005	BGWC-25	EPA 3010	576632	EPA 6010	576717
2623811007	Dup-3	EPA 3010	576632	EPA 6010	576717
2623811008	FBL 093019	EPA 3010	576632	EPA 6010	576717
2623811009	EQBL 093019	EPA 3010	576632	EPA 6010	576717
2623811003	BGWC-21	SM 2320B	36486		
2623811004	BGWC-24	SM 2320B	36486		
2623811005	BGWC-25	SM 2320B	36486		
2623811007	Dup-3	SM 2320B	36486		
2623811008	FBL 093019	SM 2320B	36620		
2623811009	EQBL 093019	SM 2320B	36620		
2623811008	FBL 093019	SM 2540C	36519		
2623811009	EQBL 093019	SM 2540C	36519		
2623811008	FBL 093019	SM 2540D	36634		
2623811009	EQBL 093019	SM 2540D	36634		
2623811001	BGWA-2	SM 4500-P	36329		
2623811002	BGWA-6	SM 4500-P	36329		
2623811003	BGWC-21	SM 4500-P	36288		
2623811004	BGWC-24	SM 4500-P	36288		
2623811005	BGWC-25	SM 4500-P	36288		
2623811006	BGWA-29	SM 4500-P	36329		
2623811007	Dup-3	SM 4500-P	36288		
2623811008	FBL 093019	SM 4500-P	36329		
2623811009	EQBL 093019	SM 4500-P	36329		
2623811001	BGWA-2	SM 4500-S2 D	36501		
2623811002	BGWA-6	SM 4500-S2 D	36501		
2623811003	BGWC-21	SM 4500-S2 D	36501		
2623811004	BGWC-24	SM 4500-S2 D	36501		
2623811005	BGWC-25	SM 4500-S2 D	36501		
2623811006	BGWA-29	SM 4500-S2 D	36501		
2623811007	Dup-3	SM 4500-S2 D	36501		
2623811008	FBL 093019	SM 4500-S2 D	36501		
2623811009	EQBL 093019	SM 4500-S2 D	36501		
2623811008	FBL 093019	EPA 300.0	36842		
2623811009	EQBL 093019	EPA 300.0	36842		
2623811003	BGWC-21	SM 5310B	575614		
2623811004	BGWC-24	SM 5310B	575614		
2623811005	BGWC-25	SM 5310B	575614		
2623811007	Dup-3	SM 5310B	575614		
2623811008	FBL 093019	SM 5310B	575614		
2623811009	EQBL 093019	SM 5310B	575614		

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	Page: <u> </u> Of <u> </u>
Required Client Information:	Required Project Information:	Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Jbju Abraham	Attention: <u> </u>	
Address: 2480 Marer Road	Copy To: Gcscystoc	Company Name: <u> </u>	
Atlanta, GA 30339	Purchase Order #: SCS10392775	Address: <u> </u>	
Email: jabraham@southernco.com	Project Name: Plant Bowen Additional Parameters	Pace Quota: <u> </u>	Regulatory Agency
Phone: (404)506-7239	Project #: Ash Pond	Pace Project Manager: betsy.nordani@pascelabs.com	State / Location
Requested Duo Date: <u> </u>		Pace Profile #: 315.5	<u> </u>

ITEM #	MATRIX Drinking Water Water Waste Water Product Solid Oil Wipe Air Cher Tissue	CODE DW WT WW P SL CL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED			# OF CONTAINERS	Preservatives						Requested Analysis Filtered (Y/N)																																						
					START DATE TIME	END DATE TIME	SAMPLE TEMP AT COLLECTION		H2SO4	HNO3	HCl	NaOH	Na2SO3	Methanol	Other	Analyzes Test																																					
																Y/N																																					
1	BGWA-2	WT	G	G	9/30/19	1413		2	1	1	1	1	1																																								
2	BGWA-6	WT	G	G	9/30/19	1514		2	1	1	1	1	1																																								
3	BGWC-21	WT	G	G	9/30/19	0940		6	2	1	2	1	1	1																																							
4	BGWC-24	WT	G	G	9/30/19	1125		6	2	1	2	1	1	1																																							
5	BGWC-25	WT	G	G	9/30/19	1218		6	2	1	2	1	1	1																																							
6	BGWA-29	WT	G	G	9/30/19	1342		2	1	1	1	1	1																																								
7	DUP-3	WT	G	G	9/30/19	---		6	2	1	2	1	1	1																																							
8	FBL 093019	WT	G	G	9/30/19	1520		6	2	1	2	1	1	1																																							
9	EQBL 093019	WT	G	G	9/30/19	1525		6	2	1	2	1	1	1																																							
10																																																					
11																																																					
12																																																					

WO#: 2623811



ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION
	Audrey Crafton	10/1/2019	1400	Lee Miller
	Lee Miller	10/1/2019	1515	M. Washington
	M. Washington	10/1/19	16:30	M. Washington

TEMP In C <u> </u>	Received on Ice (Y/N)	Sealed (Y/N)	Custody (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER: Audrey Crafton, Joe Booth	DATE Signed: 9/30/19				
SIGNATURE of SAMPLER: <i>Audrey Crafton</i>					



Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

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

WO#: **2623811**

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

PM: **BM** Due Date: **10/08/19**
CLIENT: **GAPower-CCR**

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 8.3 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: 10/01/19 [Signature]

	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 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input 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)

APPENDIX E

Analytical Results and Field Sampling Forms

Appendix E1: Laboratory Analytical Data Packages and Data
Validation Reports

Appendix E2: Field Sampling Forms

APPENDIX E

Laboratory Analytical and Field Sampling Reports

Appendix E1: Laboratory Analytical Data Packages
and Data Validation Reports

Appendix E2: Field Sampling Forms

APPENDIX E1

Laboratory Analytical Data Packages and Data Validation Reports

Laboratory Reports

March 06, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615445

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Maria Padilla, Georgia Power
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615445

Atlanta Certification IDs

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 Bowen Ash Pond

Pace Project No.: 2615445

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615445001	BGWA-2	Water	02/25/19 11:03	02/27/19 15:43
2615445002	BGWC-8	Water	02/25/19 13:12	02/27/19 15:43
2615445003	BGWC-16	Water	02/25/19 15:50	02/27/19 15:43

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615445

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615445001	BGWA-2	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615445002	BGWC-8	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615445003	BGWC-16	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615445

Sample: BGWA-2		Lab ID: 2615445001		Collected: 02/25/19 11:03		Received: 02/27/19 15:43		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	0.00078	1	03/04/19 10:39	03/04/19 20:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/04/19 10:39	03/04/19 20:01	7440-38-2	
Barium	0.16	mg/L	0.010	0.00078	1	03/04/19 10:39	03/04/19 20:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/04/19 10:39	03/04/19 20:01	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/04/19 10:39	03/04/19 20:01	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/04/19 10:39	03/04/19 20:01	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/04/19 10:39	03/04/19 20:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/04/19 10:39	03/04/19 20:01	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/04/19 10:39	03/04/19 20:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/04/19 10:39	03/04/19 20:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/04/19 10:39	03/04/19 20:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/04/19 10:39	03/04/19 20:01	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	02/28/19 11:45	02/28/19 15:40	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/04/19 12:54	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615445

Sample: BGWC-8		Lab ID: 2615445002		Collected: 02/25/19 13:12		Received: 02/27/19 15:43		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	0.00078	1	03/04/19 10:39	03/04/19 20:23	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/04/19 10:39	03/04/19 20:23	7440-38-2	
Barium	0.030	mg/L	0.010	0.00078	1	03/04/19 10:39	03/04/19 20:23	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/04/19 10:39	03/04/19 20:23	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/04/19 10:39	03/04/19 20:23	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/04/19 10:39	03/04/19 20:23	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/04/19 10:39	03/04/19 20:23	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/04/19 10:39	03/04/19 20:23	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/04/19 10:39	03/04/19 20:23	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/04/19 10:39	03/04/19 20:23	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/04/19 10:39	03/04/19 20:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/04/19 10:39	03/04/19 20:23	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	02/28/19 11:45	02/28/19 16:04	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/04/19 13:56	16984-48-8	M1

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615445

Sample: BGWC-16		Lab ID: 2615445003		Collected: 02/25/19 15:50		Received: 02/27/19 15:43		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	0.00078	1	03/04/19 10:39	03/04/19 20:35	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/04/19 10:39	03/04/19 20:35	7440-38-2	
Barium	0.028	mg/L	0.010	0.00078	1	03/04/19 10:39	03/04/19 20:35	7440-39-3	
Beryllium	0.000087J	mg/L	0.0030	0.000050	1	03/04/19 10:39	03/04/19 20:35	7440-41-7	
Cadmium	0.0016	mg/L	0.0010	0.000093	1	03/04/19 10:39	03/04/19 20:35	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/04/19 10:39	03/04/19 20:35	7440-47-3	
Cobalt	0.0071J	mg/L	0.010	0.00052	1	03/04/19 10:39	03/04/19 20:35	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/04/19 10:39	03/04/19 20:35	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/04/19 10:39	03/04/19 20:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/04/19 10:39	03/04/19 20:35	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/04/19 10:39	03/04/19 20:35	7782-49-2	
Thallium	0.00023J	mg/L	0.0010	0.00014	1	03/04/19 10:39	03/04/19 20:35	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	02/28/19 11:45	02/28/19 16:06	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.13J	mg/L	0.30	0.029	1		03/04/19 14:37	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615445

QC Batch: 23344 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2615445001, 2615445002, 2615445003

METHOD BLANK: 104469 Matrix: Water
Associated Lab Samples: 2615445001, 2615445002, 2615445003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	02/28/19 15:35	

LABORATORY CONTROL SAMPLE: 104470

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 104471 104472

Parameter	Units	2615445001 Result	MS		MSD		% Rec	% Rec	% Rec	Limits	Max		Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result					RPD	RPD	
Mercury	mg/L	ND	0.0025	0.0024	0.0025	0.0024	98	98	75-125	0	20		

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615445

QC Batch: 23515 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2615445001, 2615445002, 2615445003

METHOD BLANK: 105353 Matrix: Water
Associated Lab Samples: 2615445001, 2615445002, 2615445003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/04/19 19:49	
Arsenic	mg/L	ND	0.0050	0.00057	03/04/19 19:49	
Barium	mg/L	ND	0.010	0.00078	03/04/19 19:49	
Beryllium	mg/L	ND	0.0030	0.000050	03/04/19 19:49	
Cadmium	mg/L	ND	0.0010	0.000093	03/04/19 19:49	
Chromium	mg/L	ND	0.010	0.0016	03/04/19 19:49	
Cobalt	mg/L	ND	0.010	0.00052	03/04/19 19:49	
Lead	mg/L	ND	0.0050	0.00027	03/04/19 19:49	
Lithium	mg/L	ND	0.050	0.00097	03/04/19 19:49	
Molybdenum	mg/L	ND	0.010	0.0019	03/04/19 19:49	
Selenium	mg/L	ND	0.010	0.0014	03/04/19 19:49	
Thallium	mg/L	ND	0.0010	0.00014	03/04/19 19:49	

LABORATORY CONTROL SAMPLE: 105354

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	100	80-120	
Barium	mg/L	0.1	0.10	101	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	105	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105392 105393

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2615445001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.11	0.10	105	103	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	3	20	
Barium	mg/L	0.16	0.1	0.1	0.27	0.27	116	111	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.095	98	95	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615445

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105392		105393		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2615445001 Result	MS Spike Conc.	MSD Spike Conc.									
Chromium	mg/L	ND	0.1	0.1	0.10	0.099	102	99	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.097	100	96	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Lithium	mg/L	ND	0.1	0.1	0.097	0.095	97	95	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	102	100	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	3	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615445

QC Batch: 23493 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Associated Lab Samples: 2615445001, 2615445002, 2615445003

METHOD BLANK: 105280 Matrix: Water

Associated Lab Samples: 2615445001, 2615445002, 2615445003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/04/19 12:13	

LABORATORY CONTROL SAMPLE: 105281

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: 105285 105286

Parameter	Units	2615445001		2615445002		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	9.6	10.4	96	104	90-110	8	15		

MATRIX SPIKE SAMPLE: 105358

Parameter	Units	2615445002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	8.8	88	90-110	M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615445

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

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 Bowen Ash Pond
Pace Project No.: 2615445

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615445001	BGWA-2	EPA 3005A	23515	EPA 6020B	23543
2615445002	BGWC-8	EPA 3005A	23515	EPA 6020B	23543
2615445003	BGWC-16	EPA 3005A	23515	EPA 6020B	23543
2615445001	BGWA-2	EPA 7470A	23344	EPA 7470A	23360
2615445002	BGWC-8	EPA 7470A	23344	EPA 7470A	23360
2615445003	BGWC-16	EPA 7470A	23344	EPA 7470A	23360
2615445001	BGWA-2	EPA 300.0	23493		
2615445002	BGWC-8	EPA 300.0	23493		
2615445003	BGWC-16	EPA 300.0	23493		

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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
 Requested Due Date: _____
 Fax: _____

Section B
Required Project Information:
 Report To: Joji Abraham
 Copy To: Geosyntec
 Purchase Order #: SCS10348606
 Project Name: Plant Bowen Ash Pond
 Project #: _____

Section C
Invoice Information:
 Attention: _____
 Company Name: _____
 Address: _____
 Pace Quote: _____
 Pace Project Manager: betsy.mcdaniel@pace-labs.com
 Pace Profile #: 315

Page: 1 Of 1

Regulatory Agency: _____
 State / Location: GA

ITEM #	MATRIX Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Other Tissue	CODE DW WT WW P SL OL WP AR OT TS	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H2SO4 HNO3 HCl NaOH Na2S2O3 Methanol Other	Y/N	Requested Analysis Filtered (Y/N)	Fluoride	Metals 6020 App IV (See L)	Radium 226, 228	Residual Chlorine (Y/N)
				START DATE	END DATE									
1			516	2/15/14	1103		4				1	1		
2			516	2/15/14	1312		4				1	1		
3			516	2/15/14	1550		4				1	1		
4														
5														
6														
7														
8														
9														
10														
11														
12														

ADDITIONAL COMMENTS
 Relinquished by / Affiliation: Cindy Mauldin
 Date: 2/27
 Time: 1:34 PM
 Accepted by / Affiliation: Jessica Weiler
 Date: 2/27/14
 Time: 1543
 Sample Conditions: Y N Y N

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Robert Mull / Andrea Crocker
 SIGNATURE of SAMPLER: [Signature]
 DATE Signed: 2/25/14
 Cindy Mauldin

Received on: _____
 TEMP in C: _____
 Ice (Y/N): _____
 Sealed (Y/N): _____
 Custody (Y/N): _____

WO#: 2615445

2615445



Sample Condition Upon Receipt

WO#: 2615445

Client Name: GA Power

PM: BM

Due Date: 03/06/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 082 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 2.5°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 2/27/19/CR

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: _____

8151A WSC

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)

March 22, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615446

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615446

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

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 Bowen Ash Pond

Pace Project No.: 2615446

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615446001	BGWA-2	Water	02/25/19 11:03	02/27/19 15:43
2615446002	BGWC-8	Water	02/25/19 13:12	02/27/19 15:43
2615446003	BGWC-16	Water	02/25/19 15:50	02/27/19 15:43

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615446

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615446001	BGWA-2	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615446002	BGWC-8	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615446003	BGWC-16	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615446

Sample: BGWA-2 **Lab ID: 2615446001** Collected: 02/25/19 11:03 Received: 02/27/19 15:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.10 ± 0.426 (0.485) C:91% T:NA	pCi/L	03/12/19 09:13	13982-63-3	
Radium-228	EPA 9320	0.327 ± 0.381 (0.802) C:77% T:79%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.43 ± 0.807 (1.29)	pCi/L	03/19/19 14:43	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615446

Sample: BGWC-8 **Lab ID: 2615446002** Collected: 02/25/19 13:12 Received: 02/27/19 15:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.313 ± 0.236 (0.383) C:94% T:NA	pCi/L	03/12/19 09:13	13982-63-3	
Radium-228	EPA 9320	0.712 ± 0.405 (0.733) C:72% T:87%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.03 ± 0.641 (1.12)	pCi/L	03/19/19 14:43	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615446

Sample: BGWC-16 **Lab ID: 2615446003** Collected: 02/25/19 15:50 Received: 02/27/19 15:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.606 ± 0.298 (0.357) C:97% T:NA	pCi/L	03/12/19 09:13	13982-63-3	
Radium-228	EPA 9320	0.473 ± 0.340 (0.652) C:76% T:85%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.08 ± 0.638 (1.01)	pCi/L	03/19/19 14:43	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615446

QC Batch: 332854

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2615446001, 2615446002, 2615446003

METHOD BLANK: 1619642

Matrix: Water

Associated Lab Samples: 2615446001, 2615446002, 2615446003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.381 ± 0.318 (0.630) C:77% T:89%	pCi/L	03/18/19 16:07	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615446

QC Batch:	332626	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2615446001, 2615446002, 2615446003		

METHOD BLANK:	1618580	Matrix:	Water
Associated Lab Samples:	2615446001, 2615446002, 2615446003		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.397 ± 0.246 (0.344) C:98% T:NA	pCi/L	03/12/19 09:13	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2615446

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 Bowen Ash Pond

Pace Project No.: 2615446

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615446001	BGWA-2	EPA 9315	332626		
2615446002	BGWC-8	EPA 9315	332626		
2615446003	BGWC-16	EPA 9315	332626		
2615446001	BGWA-2	EPA 9320	332854		
2615446002	BGWC-8	EPA 9320	332854		
2615446003	BGWC-16	EPA 9320	332854		
2615446001	BGWA-2	Total Radium Calculation	334412		
2615446002	BGWC-8	Total Radium Calculation	334412		
2615446003	BGWC-16	Total Radium Calculation	334412		

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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:	Joyu Abraham	Attention:	
Address:	2480 Maner Road Atlanta, GA 30339	Copy To:	Geosyntec	Company Name:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10348606	Address:	
Phone:	(404)506-7239	Project Name:	Plant Bowen Ash Pond	Pace Quote:	
Requested Due Date:		Project #:		Pace Project Manager:	betsy.mcdaniel@paceelabs.com
				Pace Profile #:	315
				State / Location:	GA
				Regulatory Agency:	
				Page:	Of

ITEM #	MATRIX CODE DW Drinking Water WV Waste Water WW Wastewater P Product SL Soil/Solid OI Oil WP Wipe AR Air OT Other TS Task	SAMPLE ID (A-Z, 0-9 / . -) Sample ids must be unique	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	# OF CONTAINERS	Preservatives							Analyses Test Y/N	Requested Analysis Filtered (Y/N)		
			START DATE TIME	END DATE TIME			Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol			Other	
1		B3602-A-2	2/27/14 11:03		G	4										1	
2		B3602-8	2/27/14 13:12		G	4										2	
3		B3602-16	2/27/14 15:50		G	4										3	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		SAMPLE CONDITIONS	
	DATE	TIME	DATE	TIME	TEMP in C	Received on Ice (Y/N)
Cindy Madden	2/27	1:34 PM	Jessica Weiler	2/27/14	2.5	Y

WO# : 2615446

2615446

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Robert Mull
 SIGNATURE of SAMPLER: Robert Mull
 DATE Signed: 2/25/14

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Robert Mull
 SIGNATURE of SAMPLER: Robert Mull
 DATE Signed: 2/25/14



Sample Condition Upon Receipt

WO#: 2615446

Client Name: GA Power

PM: BM Due Date: 03/27/19
CLIENT: GAPower-CCR

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

Optional
Proj. Due Date:
Proj. Name:

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 082 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 2.5C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 2/27/19 [Signature]

Temp should be above freezing to 6C

Comments:

Table with 16 rows of checklist items including Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot # (if purchased).

Client Notification/ Resolution: Field Data Required? Y / N
Person Contacted: Date/Time:
Comments/ Resolution:
8151A WSC

Project Manager Review: Date:

March 07, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615499

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Maria Padilla, Georgia Power
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2615499

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615499

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615499001	BGWA-29	Water	02/27/19 11:16	02/28/19 17:00
2615499002	BGWC-17	Water	02/27/19 13:00	02/28/19 17:00
2615499003	BGWC-18	Water	02/27/19 15:00	02/28/19 17:00
2615499004	BGWC-20	Water	02/27/19 16:46	02/28/19 17:00
2615499005	Dup-1	Water	02/27/19 00:00	02/28/19 17:00

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615499

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615499001	BGWA-29	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615499002	BGWC-17	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615499003	BGWC-18	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615499004	BGWC-20	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615499005	Dup-1	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 Bowen Ash Pond

Pace Project No.: 2615499

Sample: BGWA-29		Lab ID: 2615499001		Collected: 02/27/19 11:16		Received: 02/28/19 17:00		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	0.00078	1	03/05/19 11:25	03/06/19 13:06	7440-36-0		
Arsenic	0.0011J	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 13:06	7440-38-2		
Barium	0.013	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 13:06	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 13:06	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 13:06	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 13:06	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 13:06	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 13:06	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 13:06	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 13:06	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 13:06	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 13:06	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000065J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 12:45	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		03/04/19 22:12	16984-48-8	M1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615499

Sample: BGWC-17		Lab ID: 2615499002		Collected: 02/27/19 13:00		Received: 02/28/19 17:00		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	0.00078	1	03/05/19 11:25	03/06/19 13:11	7440-36-0		
Arsenic	0.0010J	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 13:11	7440-38-2		
Barium	0.014	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 13:11	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 13:11	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 13:11	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 13:11	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 13:11	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 13:11	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 13:11	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 13:11	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 13:11	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 13:11	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.00029J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 12:47	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.26J	mg/L	0.30	0.029	1		03/04/19 23:14	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615499

Sample: BGWC-18		Lab ID: 2615499003		Collected: 02/27/19 15:00		Received: 02/28/19 17:00		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	0.00078	1	03/05/19 11:25	03/06/19 13:17	7440-36-0		
Arsenic	0.00083J	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 13:17	7440-38-2		
Barium	0.027	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 13:17	7440-39-3		
Beryllium	0.00011J	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 13:17	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 13:17	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 13:17	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 13:17	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 13:17	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 13:17	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 13:17	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 13:17	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 13:17	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000079J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 12:50	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		03/04/19 23:55	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615499

Sample: BGWC-20		Lab ID: 2615499004		Collected: 02/27/19 16:46		Received: 02/28/19 17:00		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	0.00078	1	03/05/19 11:25	03/06/19 13:23	7440-36-0		
Arsenic	0.0014J	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 13:23	7440-38-2		
Barium	0.032	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 13:23	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 13:23	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 13:23	7440-43-9		
Chromium	0.0048J	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 13:23	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 13:23	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 13:23	7439-92-1		
Lithium	0.015J	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 13:23	7439-93-2		
Molybdenum	0.013	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 13:23	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 13:23	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 13:23	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000066J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 12:52	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.13J	mg/L	0.30	0.029	1		03/05/19 00:16	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615499

Sample: Dup-1		Lab ID: 2615499005		Collected: 02/27/19 00:00		Received: 02/28/19 17:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	03/05/19 11:25	03/06/19 13:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 13:28	7440-38-2	
Barium	0.013	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 13:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 13:28	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 13:28	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 13:28	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 13:28	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 13:28	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 13:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 13:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 13:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 13:28	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000054J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 12:59	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 00:36	16984-48-8	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615499

QC Batch: 23510 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2615499001, 2615499002, 2615499003, 2615499004, 2615499005

METHOD BLANK: 105333 Matrix: Water
Associated Lab Samples: 2615499001, 2615499002, 2615499003, 2615499004, 2615499005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000058J	0.00050	0.000036	03/05/19 12:05	

LABORATORY CONTROL SAMPLE: 105334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0027	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105335 105336

Parameter	Units	MS		MSD		% Rec		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		2615468001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec							
Mercury	mg/L	0.000074J	0.0025	0.0025	0.0025	0.0025	99	97	75-125	2	20			

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

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615499

QC Batch: 23567 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2615499001, 2615499002, 2615499003, 2615499004, 2615499005

METHOD BLANK: 105477 Matrix: Water
Associated Lab Samples: 2615499001, 2615499002, 2615499003, 2615499004, 2615499005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/06/19 12:37	
Arsenic	mg/L	ND	0.0050	0.00057	03/06/19 12:37	
Barium	mg/L	ND	0.010	0.00078	03/06/19 12:37	
Beryllium	mg/L	ND	0.0030	0.000050	03/06/19 12:37	
Cadmium	mg/L	ND	0.0010	0.000093	03/06/19 12:37	
Chromium	mg/L	ND	0.010	0.0016	03/06/19 12:37	
Cobalt	mg/L	ND	0.010	0.00052	03/06/19 12:37	
Lead	mg/L	ND	0.0050	0.00027	03/06/19 12:37	
Lithium	mg/L	ND	0.050	0.00097	03/06/19 12:37	
Molybdenum	mg/L	ND	0.010	0.0019	03/06/19 12:37	
Selenium	mg/L	ND	0.010	0.0014	03/06/19 12:37	
Thallium	mg/L	ND	0.0010	0.00014	03/06/19 12:37	

LABORATORY CONTROL SAMPLE: 105478

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105479 105480

Parameter	Units	2615503001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Spike Conc.						
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	104	107	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20	
Barium	mg/L	0.0067J	0.1	0.1	0.11	0.11	104	104	75-125	0	20	
Beryllium	mg/L	0.00016J	0.1	0.1	0.096	0.098	96	98	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615499

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105479		105480		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2615503001 Result	MS Spike Conc.	MSD Spike Conc.									
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	3	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Lithium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	105	105	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	104	100	75-125	4	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615499

QC Batch: 23494 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2615499001, 2615499002, 2615499003, 2615499004, 2615499005

METHOD BLANK: 105287 Matrix: Water
Associated Lab Samples: 2615499001, 2615499002, 2615499003, 2615499004, 2615499005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/04/19 21:30	

LABORATORY CONTROL SAMPLE: 105288

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: 105374 105375

Parameter	Units	2615499001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Fluoride	mg/L	ND	10	8.5	10	8.9	85	89	90-110	5	15	M1

MATRIX SPIKE SAMPLE: 105376

Parameter	Units	2615499002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.26J	10	9.9	96	90-110	

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615499

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 Bowen Ash Pond

Pace Project No.: 2615499

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615499001	BGWA-29	EPA 3005A	23567	EPA 6020B	23647
2615499002	BGWC-17	EPA 3005A	23567	EPA 6020B	23647
2615499003	BGWC-18	EPA 3005A	23567	EPA 6020B	23647
2615499004	BGWC-20	EPA 3005A	23567	EPA 6020B	23647
2615499005	Dup-1	EPA 3005A	23567	EPA 6020B	23647
2615499001	BGWA-29	EPA 7470A	23510	EPA 7470A	23534
2615499002	BGWC-17	EPA 7470A	23510	EPA 7470A	23534
2615499003	BGWC-18	EPA 7470A	23510	EPA 7470A	23534
2615499004	BGWC-20	EPA 7470A	23510	EPA 7470A	23534
2615499005	Dup-1	EPA 7470A	23510	EPA 7470A	23534
2615499001	BGWA-29	EPA 300.0	23494		
2615499002	BGWC-17	EPA 300.0	23494		
2615499003	BGWC-18	EPA 300.0	23494		
2615499004	BGWC-20	EPA 300.0	23494		
2615499005	Dup-1	EPA 300.0	23494		

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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: jbrabham@southernco.com
 Phone: (404)506-7239
 Requested Due Date: _____

Section B
Required Project Information:
 Report To: Joju Abraham
 Copy To: Geosyntec
 Purchase Order #: SCS10348606
 Project Name: Pigot Bowen Ash Pond
 Project #: _____

Section C
Invoice Information:
 Attention: _____
 Company Name: _____
 Address: _____
 Pace Quote: _____
 Pace Project Manager: betsy.mcdaniel@pacelabs.com
 Pace Profile #: 315

Regulatory Agency: _____
State / Location: GA

Page: 1 Of 1

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES					ANALYSES TEST Y/N	Requested Analysis Filtered (Y/N)
			START DATE TIME	END DATE TIME				Unpreserved	H2SO4	HNO3	HCl	NaOH		
1	BOWA-29	DW	2/27/19 11:16		WTG		4	1	3					1
2	B6WC-17	WW	2/27/19 13:00		WTG		4	1	3					2
3	B6WC-18	P	2/27/19 15:00		WTG		4	1	3					3
4	B6WC-20	SL	2/27/19 16:16		WTG		4	1	3					4
5	Dup-1	CL	2/27/19		WTG		4	1	3					5
6		WIP												
7		AR												
8		OT												
9		TS												
10														
11														
12														

ADDITIONAL COMMENTS	RELINQUISHED BY AFFILIATION	DATE	TIME	ACCEPTED BY AFFILIATION	DATE	TIME	TEMP in C	Received on	Temp	Y/N	Custody	Sealed	Cooler	Samples	Intact
	Cindy Marcho	2/28	1:23	Charles Fente	2/28/19	17:00	11.1	Y	Y	Y	Y	Y	Y	Y	Y

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Robert Mull / Brian Steek
 SIGNATURE of SAMPLER: *[Signature]* DATE Signed: 2/27/19

W0# : 2615499

 2615499

Page 16 of 17



Sample Condition Upon Receipt

WO#: 2615499

Client Name: Georgia Power

PM: BM

Due Date: 03/07/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Proj. Due Date: _____
Proj. Name: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 082 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 4.1°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 2/28/19 COY

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) <u>Pads</u>	<input checked="" type="checkbox"/> Yes <input 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: _____

8151A WSC

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)

March 22, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615500

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2615500

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
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 Bowen Ash Pond

Pace Project No.: 2615500

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615500001	BGWA-29	Water	02/27/19 11:16	02/28/19 17:00
2615500002	BGWC-17	Water	02/27/19 13:00	02/28/19 17:00
2615500003	BGWC-18	Water	02/27/19 15:00	02/28/19 17:00
2615500004	BGWC-20	Water	02/27/19 16:46	02/28/19 17:00
2615500005	Dup-1	Water	02/27/19 00:00	02/28/19 17:00

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615500

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615500001	BGWA-29	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615500002	BGWC-17	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615500003	BGWC-18	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615500004	BGWC-20	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615500005	Dup-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615500

Sample: BGWA-29 **Lab ID: 2615500001** Collected: 02/27/19 11:16 Received: 02/28/19 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.343 ± 0.176 (0.290) C:94% T:NA	pCi/L	03/13/19 18:50	13982-63-3	
Radium-228	EPA 9320	0.598 ± 0.412 (0.787) C:74% T:79%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	0.941 ± 0.588 (1.08)	pCi/L	03/19/19 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615500

Sample: BGWC-17 **Lab ID: 2615500002** Collected: 02/27/19 13:00 Received: 02/28/19 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.430 ± 0.149 (0.177) C:87% T:NA	pCi/L	03/13/19 18:50	13982-63-3	
Radium-228	EPA 9320	1.14 ± 0.513 (0.847) C:74% T:75%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.57 ± 0.662 (1.02)	pCi/L	03/19/19 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615500

Sample: BGWC-18 **Lab ID: 2615500003** Collected: 02/27/19 15:00 Received: 02/28/19 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.519 ± 0.174 (0.227) C:93% T:NA	pCi/L	03/13/19 18:50	13982-63-3	
Radium-228	EPA 9320	0.605 ± 0.428 (0.823) C:70% T:80%	pCi/L	03/18/19 16:08	15262-20-1	
Total Radium	Total Radium Calculation	1.12 ± 0.602 (1.05)	pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615500

Sample: BGWC-20 **Lab ID: 2615500004** Collected: 02/27/19 16:46 Received: 02/28/19 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.986 ± 0.237 (0.232) C:97% T:NA	pCi/L	03/13/19 18:50	13982-63-3	
Radium-228	EPA 9320	0.258 ± 0.338 (0.716) C:72% T:78%	pCi/L	03/18/19 16:08	15262-20-1	
Total Radium	Total Radium Calculation	1.24 ± 0.575 (0.948)	pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615500

Sample: Dup-1 **Lab ID: 2615500005** Collected: 02/27/19 00:00 Received: 02/28/19 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.401 ± 0.135 (0.156) C:93% T:NA	pCi/L	03/13/19 18:50	13982-63-3	
Radium-228	EPA 9320	0.588 ± 0.352 (0.632) C:76% T:83%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	0.989 ± 0.487 (0.788)	pCi/L	03/19/19 14:44	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615500

QC Batch: 332854

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2615500001, 2615500002, 2615500003, 2615500004, 2615500005

METHOD BLANK: 1619642

Matrix: Water

Associated Lab Samples: 2615500001, 2615500002, 2615500003, 2615500004, 2615500005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.381 ± 0.318 (0.630) C:77% T:89%	pCi/L	03/18/19 16:07	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615500

QC Batch: 332856 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 2615500001, 2615500002, 2615500003, 2615500004, 2615500005

METHOD BLANK: 1619644 Matrix: Water

Associated Lab Samples: 2615500001, 2615500002, 2615500003, 2615500004, 2615500005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.265 ± 0.116 (0.162) C:92% T:NA	pCi/L	03/13/19 20:28	

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 Bowen Ash Pond
Pace Project No.: 2615500

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 Bowen Ash Pond

Pace Project No.: 2615500

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615500001	BGWA-29	EPA 9315	332856		
2615500002	BGWC-17	EPA 9315	332856		
2615500003	BGWC-18	EPA 9315	332856		
2615500004	BGWC-20	EPA 9315	332856		
2615500005	Dup-1	EPA 9315	332856		
2615500001	BGWA-29	EPA 9320	332854		
2615500002	BGWC-17	EPA 9320	332854		
2615500003	BGWC-18	EPA 9320	332854		
2615500004	BGWC-20	EPA 9320	332854		
2615500005	Dup-1	EPA 9320	332854		
2615500001	BGWA-29	Total Radium Calculation	334415		
2615500002	BGWC-17	Total Radium Calculation	334415		
2615500003	BGWC-18	Total Radium Calculation	334844		
2615500004	BGWC-20	Total Radium Calculation	334844		
2615500005	Dup-1	Total Radium Calculation	334415		

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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	Jou Abraham	Attention	
Address	2480 Marner Road Atlanta, GA 30339	Copy To	Geosyntec	Company Name	
Email	jabraham@southernco.com	Purchase Order #	SCS10348606	Address	
Phone	(404)506-7239	Project Name	Plant Bowen Ash Pond	Pace Project Manager	betsy.mcdaniel@pacelabs.com
Requested Due Date		Project #		Pace Quote	
				Pace Profile #	315
				State / Location	GA
				Regulatory Agency	

ITEM #	MATRIX	CODE	SAMPLE ID	COLLECTED		DATE	TIME	DATE	TIME	SAMPLE TYPE (G-GRAB C-COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Unpreserved	Preservatives							Analyses Test	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	TEMP in C	Received	Ice (Y/N)	Custody Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)		
				START	END									H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other												
1	B6WA-29	Drinking Water	B6WA-29	2/27/19	1116	2/27/19	1116	WTG	4	1	3	3	1	1	1	1	1	1	1	1	1	1	2									1
2	B6WC-17	Water	B6WC-17	2/27/19	1300	2/27/19	1300	WTG	4	1	3	3	1	1	1	1	1	1	1	1	1	1	2									2
3	B6WC-18	Water	B6WC-18	2/27/19	1500	2/27/19	1500	WTG	4	1	3	3	1	1	1	1	1	1	1	1	1	1	2									3
4	B6WC-20	Water	B6WC-20	2/27/19	1646	2/27/19	1646	WTG	4	1	3	3	1	1	1	1	1	1	1	1	1	1	2									4
5	Dup-1	Water	Dup-1	2/27/19	---	2/27/19	---	WTG	4	1	3	3	1	1	1	1	1	1	1	1	1	1	2									5

DATE RECEIVED BY CLIENT	2/28/19 17:00	DATE	2/27/19	TIME	1:25	SAMPLER NAME AND SIGNATURE	Cindy Marder	PRINT Name of SAMPLER:	Robert Mull/Brian Steek
DATE RECEIVED BY PACELABS	2/28/19 17:00	DATE	2/27/19	TIME	1:25	SIGNATURE of SAMPLER:	[Signature]	DATE Signed:	2/27/19

WO# : 2615500

2615500



Sample Condition Upon Receipt

Client Name: Georgia Power

WO#: **2615500**

Due Date: 03/28/19

PM: BM

CLIENT: GAPower-CCR

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

Cooler Temperature 11°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 2/28/19/COJ

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 checked="" 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) <u>Pads</u>	<input checked="" type="checkbox"/> Yes <input 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: _____

8151A WSC

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)

March 11, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615551

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 01, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615551

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615551

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615551001	BGWC-10	Water	02/28/19 12:26	03/01/19 16:22
2615551002	BGWC-7	Water	02/28/19 13:32	03/01/19 16:22
2615551003	BGWC-12	Water	02/28/19 15:14	03/01/19 16:22

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond
Pace Project No.: 2615551

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615551001	BGWC-10	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615551002	BGWC-7	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615551003	BGWC-12	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615551

Sample: BGWC-10		Lab ID: 2615551001		Collected: 02/28/19 12:26		Received: 03/01/19 16:22		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	0.00078	1	03/06/19 11:40	03/06/19 19:53	7440-36-0	
Arsenic	0.0058	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 19:53	7440-38-2	
Barium	0.053	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 19:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 13:55	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 19:53	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 19:53	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 19:53	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 19:53	7439-92-1	
Lithium	0.0017J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 19:53	7439-93-2	
Molybdenum	0.0035J	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 19:53	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 19:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 19:53	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000048J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 14:29	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.14J	mg/L	0.30	0.029	1		03/07/19 20:28	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615551

Sample: BGWC-7 Lab ID: 2615551002 Collected: 02/28/19 13:32 Received: 03/01/19 16:22 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	0.00078	1	03/06/19 11:40	03/06/19 20:16	7440-36-0	
Arsenic	0.0011J	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 20:16	7440-38-2	
Barium	0.041	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 20:16	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 14:12	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 20:16	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 20:16	7440-47-3	
Cobalt	0.00067J	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 20:16	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 20:16	7439-92-1	
Lithium	0.0086J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 20:16	7439-93-2	
Molybdenum	0.016	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 20:16	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 20:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 20:16	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000053J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 14:39	7439-97-6	B
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Fluoride	0.23J	mg/L	0.30	0.029	1		03/07/19 21:37	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2615551

Sample: BGWC-12		Lab ID: 2615551003		Collected: 02/28/19 15:14		Received: 03/01/19 16:22		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	0.00078	1	03/06/19 11:40	03/06/19 20:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 20:21	7440-38-2	
Barium	0.033	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 20:21	7440-39-3	
Beryllium	0.000076J	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 14:18	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 20:21	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 20:21	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 20:21	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 20:21	7439-92-1	
Lithium	0.0011J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 20:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 20:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 20:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 20:21	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000058J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 14:41	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.18J	mg/L	0.30	0.029	1		03/07/19 22:00	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615551

QC Batch: 23535

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2615551001, 2615551002, 2615551003

METHOD BLANK: 105394

Matrix: Water

Associated Lab Samples: 2615551001, 2615551002, 2615551003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000050J	0.00050	0.000036	03/05/19 14:25	

LABORATORY CONTROL SAMPLE: 105395

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105396

105397

Parameter	Units	105396		105397		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2615551001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	0.000048J	0.0025	0.0025	0.0027	0.0022	104	87	75-125	18	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 Bowen Ash Pond
Pace Project No.: 2615551

QC Batch: 23687 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2615551001, 2615551002, 2615551003

METHOD BLANK: 106016 Matrix: Water
Associated Lab Samples: 2615551001, 2615551002, 2615551003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/06/19 18:24	
Arsenic	mg/L	ND	0.0050	0.00057	03/06/19 18:24	
Barium	mg/L	ND	0.010	0.00078	03/06/19 18:24	
Beryllium	mg/L	ND	0.0030	0.000050	03/06/19 18:24	
Cadmium	mg/L	ND	0.0010	0.000093	03/06/19 18:24	
Chromium	mg/L	ND	0.010	0.0016	03/06/19 18:24	
Cobalt	mg/L	ND	0.010	0.00052	03/06/19 18:24	
Lead	mg/L	ND	0.0050	0.00027	03/06/19 18:24	
Lithium	mg/L	ND	0.050	0.00097	03/06/19 18:24	
Molybdenum	mg/L	ND	0.010	0.0019	03/06/19 18:24	
Selenium	mg/L	ND	0.010	0.0014	03/06/19 18:24	
Thallium	mg/L	ND	0.0010	0.00014	03/06/19 18:24	

LABORATORY CONTROL SAMPLE: 106017

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106018 106019

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2615551001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	105	107	75-125	2	20	
Arsenic	mg/L	0.0058	0.1	0.1	0.11	0.11	101	103	75-125	2	20	
Barium	mg/L	0.053	0.1	0.1	0.15	0.16	102	106	75-125	3	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	0.099	0.10	99	100	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615551

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106018		106019		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2615551001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20	
Lithium	mg/L	0.0017J	0.1	0.1	0.096	0.095	95	94	75-125	1	20	
Molybdenum	mg/L	0.0035J	0.1	0.1	0.10	0.11	101	104	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.11	103	106	75-125	3	20	
Thallium	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 Bowen Ash Pond

Pace Project No.: 2615551

QC Batch: 23823 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Associated Lab Samples: 2615551001, 2615551002, 2615551003

METHOD BLANK: 106696 Matrix: Water

Associated Lab Samples: 2615551001, 2615551002, 2615551003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/07/19 19:43	

LABORATORY CONTROL SAMPLE: 106697

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106698 106699

Parameter	Units	2615551001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.14J	10	10	10.0	10	99	98	90-110	0	15	

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 Bowen Ash Pond

Pace Project No.: 2615551

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2615551

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615551001	BGWC-10	EPA 3005A	23687	EPA 6020B	23738
2615551002	BGWC-7	EPA 3005A	23687	EPA 6020B	23738
2615551003	BGWC-12	EPA 3005A	23687	EPA 6020B	23738
2615551001	BGWC-10	EPA 7470A	23535	EPA 7470A	23568
2615551002	BGWC-7	EPA 7470A	23535	EPA 7470A	23568
2615551003	BGWC-12	EPA 7470A	23535	EPA 7470A	23568
2615551001	BGWC-10	EPA 300.0	23823		
2615551002	BGWC-7	EPA 300.0	23823		
2615551003	BGWC-12	EPA 300.0	23823		

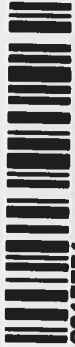
REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / A
The Chain-of-Custody is a LEGAL DOC

WO# : 2615551



2615551

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Joli Abraham	Copy To: Geosyntec	Project Name: Plant Bowen Ash Pond	Attention: Joli Abraham	Company Name: Pace Labs
Address: 2480 Maner Road	Copy To: Geosyntec	Purchase Order #: SCS10348606	Project #: 315	Address: 2480 Maner Road	Regulatory Agency: GA
Atlanta, GA 30339				Pace Quote: betsy.mcdaniel@pacelabs.com	State / Location: GA
Email: jabraham@southernco.com					
Phone: (404)506-7239					
Requested Due Date:					

ITEM #	MATRIX CODE Drinking Water: DW Water: WT Waste Water: WW Product: P Soil/Solid: SL Oil: OL Wipe: WP Air: AR Other: OT Tissue: TS	SAMPLE ID One Character per box. (A-Z, 0-9 /, -) Sample IDs must be unique	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H2SO4 HNO3 HCl NaOH Na2S2O3 Methanol Other	Analyses Test Y/N TDS, Cl, F, SO4 Metals 6020/7470 (CCR list) Radium 226, 228	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
					START DATE	END TIME						
1		B6WL-10	WT G	G	2/28/14	12:46		4	1	1		
2		B6WL-7	WT G	G	2/28/14	13:32		4	1	1		
3		B6WL-12	WT G	G	2/28/14	15:14		4	1	1		
4												
5												
6												
7												
8												
9												
10												
11												
12												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Judy Andrews	3/1/14	11:29	Brian Steele	3/1/14	11:29	
	Judy Andrews	3/1/14	11:29	Judy Andrews	3/1/14	11:29	
	Andy Andrews	3/1/14	4:22	Jessica Walker	3-1-14	16:22	Y N Y

SAMPLER NAME AND SIGNATURE		TEMP in C	Received on	Ice (Y/N)	Custody Sealed (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER: <u>Brian Steele</u>						
SIGNATURE of SAMPLER: <u>[Signature]</u>		DATE Signed: <u>2/28/14</u>				



Client Name: Georgia Power
Coal Combustion

PM: BM Due Date: 03/08/19
CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Proj. Due Date:
Proj. Name:

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 083 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 2.8° Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/1/19

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>WT</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	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):		Lot # of added preservative

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: Robert Mull Date/Time: 3/4/2019

Comments/ Resolution: Per consultant, these samples set only App. IV list; no Cl, no 504, no TDS, no B, no Ca.

Project Manager Review: B McD

Date: 3/4/2019

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)

March 22, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615552

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 01, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2615552

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
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 Bowen Ash Pond
Pace Project No.: 2615552

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615552001	BGWC-10	Water	02/28/19 12:26	03/01/19 16:22
2615552002	BGWC-7	Water	02/28/19 13:32	03/01/19 16:22
2615552003	BGWC-12	Water	02/28/19 15:14	03/01/19 16:22

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615552

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615552001	BGWC-10	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615552002	BGWC-7	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615552003	BGWC-12	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615552

Sample: BGWC-10 **Lab ID: 2615552001** Collected: 02/28/19 12:26 Received: 03/01/19 16:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.11 ± 0.245 (0.171) C:88% T:NA	pCi/L	03/13/19 20:28	13982-63-3	
Radium-228	EPA 9320	0.768 ± 0.429 (0.764) C:71% T:81%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.88 ± 0.674 (0.935)	pCi/L	03/19/19 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615552

Sample: BGWC-7 **Lab ID: 2615552002** Collected: 02/28/19 13:32 Received: 03/01/19 16:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.883 ± 0.206 (0.160) C:91% T:NA	pCi/L	03/13/19 20:28	13982-63-3	
Radium-228	EPA 9320	0.495 ± 0.403 (0.800) C:77% T:77%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.38 ± 0.609 (0.960)	pCi/L	03/19/19 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615552

Sample: BGWC-12 **Lab ID: 2615552003** Collected: 02/28/19 15:14 Received: 03/01/19 16:22 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 ± 0.142 (0.157) C:96% T:NA	pCi/L	03/13/19 20:28	13982-63-3	
Radium-228	EPA 9320	0.575 ± 0.339 (0.607) C:75% T:86%	pCi/L	03/18/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.04 ± 0.481 (0.764)	pCi/L	03/19/19 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615552

QC Batch: 332854

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2615552001, 2615552002, 2615552003

METHOD BLANK: 1619642

Matrix: Water

Associated Lab Samples: 2615552001, 2615552002, 2615552003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.381 ± 0.318 (0.630) C:77% T:89%	pCi/L	03/18/19 16:07	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615552

QC Batch: 332856

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2615552001, 2615552002, 2615552003

METHOD BLANK: 1619644

Matrix: Water

Associated Lab Samples: 2615552001, 2615552002, 2615552003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.265 ± 0.116 (0.162) C:92% T:NA	pCi/L	03/13/19 20:28	

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 Bowen Ash Pond

Pace Project No.: 2615552

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 Bowen Ash Pond

Pace Project No.: 2615552

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615552001	BGWC-10	EPA 9315	332856		
2615552002	BGWC-7	EPA 9315	332856		
2615552003	BGWC-12	EPA 9315	332856		
2615552001	BGWC-10	EPA 9320	332854		
2615552002	BGWC-7	EPA 9320	332854		
2615552003	BGWC-12	EPA 9320	332854		
2615552001	BGWC-10	Total Radium Calculation	334415		
2615552002	BGWC-7	Total Radium Calculation	334415		
2615552003	BGWC-12	Total Radium Calculation	334415		

REPORT OF LABORATORY ANALYSIS

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WO#: 2615552



1 of 1

Section A
 Company: Georgia Power - Coal Combustion Residuals
 Address: 2480 Maner Road, Atlanta, GA 30339
 Phone: (404)506-7239
 Requested Due Date: _____

Section B
 Report To: Jpu Abraham
 Copy To: Geosyntec
 Project Name: Plant Bowen Ash Pond
 Project #: 315

Section C
 Invoice Information:
 Attention: _____
 Company Name: Pace Analytical
 Address: _____
 Pace Project Manager: beisy.mcdaniel@pacelabs.com
 Pace Profile #: 315
 Regulatory Agency: _____
 State / Location: GA

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G-GRAB C-COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES						Analyses Test Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
			START DATE TIME	END DATE TIME				Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3			
1	Boiler-10	Water	4/28/14 12:42		WTG		4	1	3							1
2	Boiler-7	Water	4/29/14 13:52		WTG		4	1	3							2
3	Boiler-12	Water	4/29/14 15:14		WTG		4	1	3							3
4																
5																
6																
7																
8																
9																
10																
11																
12																

ADDITIONAL COMMENTS

3-1-19 11:29
 3-1-19 13:07
 3-1-19 16:22 2.8"

RELINQUISHED BY / AFFILIATION:
 Cindy Mander 3/1
 Cindy Mander 3/1
 Cindy Mander 3/1

ACCEPTED BY / AFFILIATION:
 Bob [Signature]
 Jessica Wobler

DATE **TIME** **DATE** **TIME**

SAMPLE CONDITIONS

Received on Ice (Y/N) _____
 Custody Sealed (Y/N) _____
 Samples Intact (Y/N) _____

TEMP in C _____

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Robert M. J. Brian Steele
 SIGNATURE of SAMPLER: [Signature] DATE Signed: 2/28/19



Sample Condition Upon Receipt

WO#: 2615552

Client Name: Georgia Power Coal Combustion

PM: BM

Due Date: 03/08/19

CLIENT: GPower-CCR

Courier: [] Fed Ex [] UPS [] USPS [x] Client [] Commercial [] Pace Other

Tracking #: _____

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

Packing Material: [] Bubble Wrap [] Bubble Bags [x] None [] Other

Thermometer Used 083

Type of Ice: Wet Blue None

[] Samples on ice, cooling process has begun

Cooler Temperature 2.8°

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/1/19

Temp should be above freezing to 6°C

Comments:

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

March 08, 2019

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


RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615560

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 01, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615560001	BGWC-30	Water	03/01/19 11:35	03/01/19 16:57
2615560002	BGWC-22	Water	03/01/19 11:40	03/01/19 16:57
2615560003	BGWC-24	Water	03/01/19 12:04	03/01/19 16:57
2615560004	BGWC-25	Water	03/01/19 13:04	03/01/19 16:57
2615560005	BGWC-19	Water	03/01/19 13:56	03/01/19 16:57
2615560006	BGWC-23	Water	03/01/19 14:07	03/01/19 16:57
2615560007	Dup-2	Water	03/01/19 00:00	03/01/19 16:57
2615560008	FBL030119	Water	03/01/19 14:40	03/01/19 16:57
2615560009	EQBL030119	Water	03/01/19 14:45	03/01/19 16:57

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615560001	BGWC-30	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615560002	BGWC-22	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615560003	BGWC-24	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615560004	BGWC-25	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615560005	BGWC-19	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615560006	BGWC-23	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615560007	Dup-2	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615560008	FBL030119	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615560009	EQBL030119	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Sample: BGWC-30		Lab ID: 2615560001		Collected: 03/01/19 11:35		Received: 03/01/19 16:57		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	0.00078	1	03/06/19 11:40	03/06/19 20:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 20:27	7440-38-2	
Barium	0.078	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 20:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 14:23	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 20:27	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 20:27	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 20:27	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 20:27	7439-92-1	
Lithium	0.0044J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 20:27	7439-93-2	
Molybdenum	0.011	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 20:27	7439-98-7	
Selenium	0.010J	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 20:27	7782-49-2	
Thallium	0.00024J	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 20:27	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.00010J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 14:44	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.24J	mg/L	0.30	0.029	1		03/05/19 11:14	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2615560

Sample: BGWC-22		Lab ID: 2615560002		Collected: 03/01/19 11:40		Received: 03/01/19 16:57		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	0.00078	1	03/06/19 11:40	03/06/19 20:33	7440-36-0		
Arsenic	0.0011J	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 20:33	7440-38-2		
Barium	0.087	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 20:33	7440-39-3		
Beryllium	0.00012J	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 14:29	7440-41-7		
Cadmium	0.00013J	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 20:33	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 20:33	7440-47-3		
Cobalt	0.017	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 20:33	7440-48-4		
Lead	0.00033J	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 20:33	7439-92-1		
Lithium	0.022J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 20:33	7439-93-2		
Molybdenum	0.039	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 20:33	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 20:33	7782-49-2		
Thallium	0.00074J	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 20:33	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000042J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 14:46	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.34	mg/L	0.30	0.029	1		03/05/19 11:37	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Sample: BGWC-24 Lab ID: 2615560003 Collected: 03/01/19 12:04 Received: 03/01/19 16:57 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	0.00078	1	03/06/19 11:40	03/06/19 20:50	7440-36-0	
Arsenic	0.0032J	mg/L	0.025	0.0028	5	03/06/19 11:40	03/07/19 14:48	7440-38-2	D3
Barium	0.12	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 20:50	7440-39-3	
Beryllium	ND	mg/L	0.015	0.00025	5	03/06/19 11:40	03/07/19 14:48	7440-41-7	D3
Cadmium	0.0058	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 20:50	7440-43-9	
Chromium	ND	mg/L	0.050	0.0078	5	03/06/19 11:40	03/07/19 14:48	7440-47-3	D3
Cobalt	0.0055J	mg/L	0.050	0.0026	5	03/06/19 11:40	03/07/19 14:48	7440-48-4	D3
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 20:50	7439-92-1	
Lithium	0.0068J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 20:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 20:50	7439-98-7	
Selenium	ND	mg/L	0.050	0.0068	5	03/06/19 11:40	03/07/19 14:48	7782-49-2	D3
Thallium	0.00070J	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 20:50	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.00093	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 14:53	7439-97-6	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Fluoride	1.0	mg/L	0.30	0.029	1		03/05/19 12:00	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Sample: BGWC-25		Lab ID: 2615560004		Collected: 03/01/19 13:04		Received: 03/01/19 16:57		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	0.00078	1	03/06/19 11:40	03/06/19 20:56	7440-36-0	
Arsenic	0.0022J	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/07/19 14:54	7440-38-2	
Barium	0.021	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 20:56	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 14:54	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 20:56	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/07/19 14:54	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/07/19 14:54	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 20:56	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 20:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 20:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/07/19 14:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 20:56	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000047J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 14:56	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.12J	mg/L	0.30	0.029	1		03/05/19 13:13	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Sample: BGWC-19		Lab ID: 2615560005		Collected: 03/01/19 13:56		Received: 03/01/19 16:57		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	0.00078	1	03/06/19 11:40	03/06/19 21:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/07/19 14:59	7440-38-2	
Barium	0.028	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 21:02	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 14:59	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 21:02	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/07/19 14:59	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/07/19 14:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 21:02	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 21:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 21:02	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/07/19 14:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 21:02	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000050J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 14:58	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.14J	mg/L	0.30	0.029	1		03/05/19 13:36	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Sample: BGWC-23		Lab ID: 2615560006		Collected: 03/01/19 14:07		Received: 03/01/19 16:57		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	0.00078	1	03/06/19 11:40	03/07/19 16:52	7440-36-0		
Arsenic	0.0023J	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/07/19 16:52	7440-38-2		
Barium	0.097	mg/L	0.010	0.00078	1	03/06/19 11:40	03/07/19 16:52	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 16:52	7440-41-7		
Cadmium	0.00019J	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/07/19 16:52	7440-43-9		
Chromium	0.0033J	mg/L	0.010	0.0016	1	03/06/19 11:40	03/07/19 16:52	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/07/19 16:52	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/07/19 16:52	7439-92-1		
Lithium	0.017J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/07/19 16:52	7439-93-2		
Molybdenum	0.013	mg/L	0.010	0.0019	1	03/06/19 11:40	03/07/19 16:52	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/07/19 16:52	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/07/19 16:52	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000044J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 15:00	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.38	mg/L	0.30	0.029	1		03/05/19 13:59	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Sample: Dup-2		Lab ID: 2615560007		Collected: 03/01/19 00:00		Received: 03/01/19 16:57		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	0.00078	1	03/06/19 11:40	03/06/19 21:07	7440-36-0	
Arsenic	0.0022J	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/07/19 15:05	7440-38-2	
Barium	0.086	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 21:07	7440-39-3	
Beryllium	0.00013J	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 15:05	7440-41-7	
Cadmium	0.00013J	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 21:07	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/07/19 15:05	7440-47-3	
Cobalt	0.017	mg/L	0.010	0.00052	1	03/06/19 11:40	03/07/19 15:05	7440-48-4	
Lead	0.00031J	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 21:07	7439-92-1	
Lithium	0.021J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 21:07	7439-93-2	
Molybdenum	0.038	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 21:07	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/07/19 15:05	7782-49-2	
Thallium	0.00071J	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 21:07	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000047J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 15:03	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.37	mg/L	0.30	0.029	1		03/05/19 14:21	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Sample: FBL030119		Lab ID: 2615560008		Collected: 03/01/19 14:40		Received: 03/01/19 16:57		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	0.00078	1	03/06/19 11:40	03/07/19 17:21	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/07/19 17:21	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	03/06/19 11:40	03/07/19 17:21	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 17:21	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/07/19 17:21	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/07/19 17:21	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/07/19 17:21	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/07/19 17:21	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/07/19 17:21	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/07/19 17:21	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/07/19 17:21	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/07/19 17:21	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000047J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 15:05	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 16:16	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Sample: EQBL030119		Lab ID: 2615560009		Collected: 03/01/19 14:45		Received: 03/01/19 16:57		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	0.00078	1	03/06/19 11:40	03/07/19 17:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/07/19 17:27	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	03/06/19 11:40	03/07/19 17:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 17:27	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/07/19 17:27	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/07/19 17:27	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/07/19 17:27	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/07/19 17:27	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/07/19 17:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/07/19 17:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/07/19 17:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/07/19 17:27	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000043J	mg/L	0.00050	0.000036	1	03/04/19 15:02	03/05/19 15:07	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 16:39	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615560

QC Batch: 23535 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2615560001, 2615560002, 2615560003, 2615560004, 2615560005, 2615560006, 2615560007, 2615560008, 2615560009

METHOD BLANK: 105394 Matrix: Water
Associated Lab Samples: 2615560001, 2615560002, 2615560003, 2615560004, 2615560005, 2615560006, 2615560007, 2615560008, 2615560009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000050J	0.00050	0.000036	03/05/19 14:25	

LABORATORY CONTROL SAMPLE: 105395

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105396 105397

Parameter	Units	2615551001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
			Spike Conc.	Spike Conc.								
Mercury	mg/L	0.000048J	0.0025	0.0025	0.0027	0.0022	104	87	75-125	18	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615560

QC Batch: 23687 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2615560001, 2615560002, 2615560003, 2615560004, 2615560005, 2615560007

METHOD BLANK: 106016 Matrix: Water
Associated Lab Samples: 2615560001, 2615560002, 2615560003, 2615560004, 2615560005, 2615560007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/06/19 18:24	
Arsenic	mg/L	ND	0.0050	0.00057	03/06/19 18:24	
Barium	mg/L	ND	0.010	0.00078	03/06/19 18:24	
Beryllium	mg/L	ND	0.0030	0.000050	03/06/19 18:24	
Cadmium	mg/L	ND	0.0010	0.000093	03/06/19 18:24	
Chromium	mg/L	ND	0.010	0.0016	03/06/19 18:24	
Cobalt	mg/L	ND	0.010	0.00052	03/06/19 18:24	
Lead	mg/L	ND	0.0050	0.00027	03/06/19 18:24	
Lithium	mg/L	ND	0.050	0.00097	03/06/19 18:24	
Molybdenum	mg/L	ND	0.010	0.0019	03/06/19 18:24	
Selenium	mg/L	ND	0.010	0.0014	03/06/19 18:24	
Thallium	mg/L	ND	0.0010	0.00014	03/06/19 18:24	

LABORATORY CONTROL SAMPLE: 106017

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106018 106019

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		261551001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	105	107	75-125	2	20	
Arsenic	mg/L	0.0058	0.1	0.1	0.11	0.11	101	103	75-125	2	20	
Barium	mg/L	0.053	0.1	0.1	0.15	0.16	102	106	75-125	3	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	0.099	0.10	99	100	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106018		106019		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2615551001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20	
Lithium	mg/L	0.0017J	0.1	0.1	0.096	0.095	95	94	75-125	1	20	
Molybdenum	mg/L	0.0035J	0.1	0.1	0.10	0.11	101	104	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.11	103	106	75-125	3	20	
Thallium	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 Bowen Ash Pond
Pace Project No.: 2615560

QC Batch: 23688 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2615560006, 2615560008, 2615560009

METHOD BLANK: 106022 Matrix: Water
Associated Lab Samples: 2615560006, 2615560008, 2615560009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/07/19 16:35	
Arsenic	mg/L	ND	0.0050	0.00057	03/07/19 16:35	
Barium	mg/L	ND	0.010	0.00078	03/07/19 16:35	
Beryllium	mg/L	ND	0.0030	0.000050	03/07/19 16:35	
Cadmium	mg/L	ND	0.0010	0.000093	03/07/19 16:35	
Chromium	mg/L	ND	0.010	0.0016	03/07/19 16:35	
Cobalt	mg/L	ND	0.010	0.00052	03/07/19 16:35	
Lead	mg/L	ND	0.0050	0.00027	03/07/19 16:35	
Lithium	mg/L	ND	0.050	0.00097	03/07/19 16:35	
Molybdenum	mg/L	ND	0.010	0.0019	03/07/19 16:35	
Selenium	mg/L	ND	0.010	0.0014	03/07/19 16:35	
Thallium	mg/L	ND	0.0010	0.00014	03/07/19 16:35	

LABORATORY CONTROL SAMPLE: 106023

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	0.098	98	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.096	96	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106024 106025

Parameter	Units	2615560006 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	102	105	75-125	3	20	
Arsenic	mg/L	0.0023J	0.1	0.1	0.10	0.11	101	104	75-125	3	20	
Barium	mg/L	0.097	0.1	0.1	0.21	0.22	112	121	75-125	4	20	
Beryllium	mg/L	ND	0.1	0.1	0.093	0.099	93	99	75-125	6	20	
Cadmium	mg/L	0.00019J	0.1	0.1	0.095	0.096	95	96	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615560

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106024		106025		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2615560006 Result	MS Spike Conc.	MSD Spike Conc.									
Chromium	mg/L	0.0033J	0.1	0.1	0.10	0.11	98	104	75-125	5	20		
Cobalt	mg/L	ND	0.1	0.1	0.094	0.098	93	97	75-125	4	20		
Lead	mg/L	ND	0.1	0.1	0.090	0.093	90	93	75-125	3	20		
Lithium	mg/L	0.017J	0.1	0.1	0.12	0.12	100	106	75-125	5	20		
Molybdenum	mg/L	0.013	0.1	0.1	0.11	0.12	101	105	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.099	0.10	99	103	75-125	4	20		
Thallium	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615560

QC Batch: 23574 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2615560001, 2615560002, 2615560003, 2615560004, 2615560005, 2615560006, 2615560007, 2615560008, 2615560009

METHOD BLANK: 105501 Matrix: Water
Associated Lab Samples: 2615560001, 2615560002, 2615560003, 2615560004, 2615560005, 2615560006, 2615560007, 2615560008, 2615560009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/05/19 03:59	

LABORATORY CONTROL SAMPLE: 105502

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105503 105504

Parameter	Units	2615503012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.22J	10	10	10.1	10.1	99	99	90-110	0	15	

MATRIX SPIKE SAMPLE: 105505

Parameter	Units	2615503013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.14J	10	9.7	96	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2615560

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.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond
Pace Project No.: 2615560

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615560001	BGWC-30	EPA 3005A	23687	EPA 6020B	23738
2615560002	BGWC-22	EPA 3005A	23687	EPA 6020B	23738
2615560003	BGWC-24	EPA 3005A	23687	EPA 6020B	23738
2615560004	BGWC-25	EPA 3005A	23687	EPA 6020B	23738
2615560005	BGWC-19	EPA 3005A	23687	EPA 6020B	23738
2615560006	BGWC-23	EPA 3005A	23688	EPA 6020B	23745
2615560007	Dup-2	EPA 3005A	23687	EPA 6020B	23738
2615560008	FBL030119	EPA 3005A	23688	EPA 6020B	23745
2615560009	EQBL030119	EPA 3005A	23688	EPA 6020B	23745
2615560001	BGWC-30	EPA 7470A	23535	EPA 7470A	23568
2615560002	BGWC-22	EPA 7470A	23535	EPA 7470A	23568
2615560003	BGWC-24	EPA 7470A	23535	EPA 7470A	23568
2615560004	BGWC-25	EPA 7470A	23535	EPA 7470A	23568
2615560005	BGWC-19	EPA 7470A	23535	EPA 7470A	23568
2615560006	BGWC-23	EPA 7470A	23535	EPA 7470A	23568
2615560007	Dup-2	EPA 7470A	23535	EPA 7470A	23568
2615560008	FBL030119	EPA 7470A	23535	EPA 7470A	23568
2615560009	EQBL030119	EPA 7470A	23535	EPA 7470A	23568
2615560001	BGWC-30	EPA 300.0	23574		
2615560002	BGWC-22	EPA 300.0	23574		
2615560003	BGWC-24	EPA 300.0	23574		
2615560004	BGWC-25	EPA 300.0	23574		
2615560005	BGWC-19	EPA 300.0	23574		
2615560006	BGWC-23	EPA 300.0	23574		
2615560007	Dup-2	EPA 300.0	23574		
2615560008	FBL030119	EPA 300.0	23574		
2615560009	EQBL030119	EPA 300.0	23574		

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 Maner Road Atlanta, GA 30339	Section C Invoice Information:	Page: Of
Report To: Joju Abraham Copy To: Geosyntec	Attention: Company Name: Address: Pace Quote	Requested Analysis: Filtered (Y/N)	
Phone: abraham@southernco.com Requested Due Date:	Purchase Order #: SCS10348605 Project Name: Plant Bowen Ash Pond Project #: []	Preservatives:	Regulatory Agency:
	Pace Project Manager: betsy.mcdaniels@paceanalytical.com Pace Profile #: 315	Other:	State / Location: GA

ITEM #	MATRIX CODE Drinking Water: DW Waste Water: WT Water: WW Product: P Soil/Solid: SL Oil: OL Wipe: WP Air: AR Other: OT Tissue: TS	COLLECTED		DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis: Filtered (Y/N)								
		START	END														Metals 6020/470 (CCR list)	Radium 226, 228	Residual Chlorine (Y/N)						
1	BGWC - 30	WT	G	3/1/19	1135	41	3									X	X							1	
2	BGWC - 22	WT	G	3/1/19	1140	61	5									X	X							2	
3	BGWC - 24	WT	G	3/1/19	1204	61	5									X	X							3	
4	BGWC - 25	WT	G	3/1/19	1304	41	3									X	X							4	
5	BGWC - 19	WT	G	3/1/19	1356	41	3									X	X							5	
6	BGWC - 23	WT	G	3/1/19	1407	41	3									X	X							6	
7	DWP - 2	WT	G	3/1/19	-	41	3									X	X							7	
8	FBL030119	WT	G	3/1/19	1440	41	3									X	X							8	
9	EQBL030119	WT	G	3/1/19	1445	41	3									X	X							9	
10																									
11																									
12																									

Section B Required Project Information:	Report To: Joju Abraham Copy To: Geosyntec	Section C Invoice Information:	Page: Of
Report To: Joju Abraham Copy To: Geosyntec	Attention: Company Name: Address: Pace Quote	Requested Analysis: Filtered (Y/N)	
Phone: abraham@southernco.com Requested Due Date:	Purchase Order #: SCS10348605 Project Name: Plant Bowen Ash Pond Project #: []	Preservatives:	Regulatory Agency:
	Pace Project Manager: betsy.mcdaniels@paceanalytical.com Pace Profile #: 315	Other:	State / Location: GA

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
<i>Joju Abraham</i>	3/1/19	1657	<i>Robert Mull, Kevin Stephenson, Audrey Crafter</i>	3/1/19	1657

SAMPLER NAME AND SIGNATURE	PRINT Name of SAMPLER: Robert Mull, Kevin Stephenson, Audrey Crafter
SIGNATURE of SAMPLER: <i>Audrey Crafter</i>	DATE Signed: 3/1/19

NO# : 2615560



2615560



Sample Condition Upon Receipt

WO#: 2615560

Client Name: GA Power

PM: BM Due Date: 03/08/19
CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 4.8C Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 082 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6C

Date and Initials of person examining contents: 3/11/19 CCR

Table with 16 rows and 3 columns. Columns: Question, Yes/No/N/A checkboxes, and Initials/Comments. Rows include Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot # (if purchased).

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

Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

8151A WSC

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)

March 22, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615561

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 01, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

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

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 Bowen Ash Pond

Pace Project No.: 2615561

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615561001	BGWC-30	Water	03/01/19 11:35	03/01/19 16:57
2615561002	BGWC-22	Water	03/01/19 11:40	03/01/19 16:57
2615561003	BGWC-24	Water	03/01/19 12:04	03/01/19 16:57
2615561004	BGWC-25	Water	03/01/19 13:04	03/01/19 16:57
2615561005	BGWC-19	Water	03/01/19 13:56	03/01/19 16:57
2615561006	BGWC-23	Water	03/01/19 14:07	03/01/19 16:57
2615561007	Dup-2	Water	03/01/19 00:00	03/01/19 16:57
2615561008	FBL030119	Water	03/01/19 14:40	03/01/19 16:57
2615561009	EQBL030119	Water	03/01/19 14:45	03/01/19 16:57

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615561001	BGWC-30	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615561002	BGWC-22	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615561003	BGWC-24	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615561004	BGWC-25	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615561005	BGWC-19	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615561006	BGWC-23	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615561007	Dup-2	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615561008	FBL030119	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615561009	EQBL030119	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Sample: BGWC-30 **Lab ID: 2615561001** Collected: 03/01/19 11:35 Received: 03/01/19 16:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.79 ± 0.417 (0.354) C:48% T:NA	pCi/L	03/13/19 18:51	13982-63-3	
Radium-228	EPA 9320	0.678 ± 0.391 (0.703) C:76% T:81%	pCi/L	03/18/19 16:08	15262-20-1	
Total Radium	Total Radium Calculation	2.47 ± 0.808 (1.06)	pCi/L	03/21/19 13:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Sample: BGWC-22 **Lab ID: 2615561002** Collected: 03/01/19 11:40 Received: 03/01/19 16:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.20 ± 0.410 (0.243) C:93% T:NA	pCi/L	03/13/19 18:51	13982-63-3	
Radium-228	EPA 9320	1.12 ± 0.501 (0.818) C:73% T:75%	pCi/L	03/18/19 16:08	15262-20-1	
Total Radium	Total Radium Calculation	3.32 ± 0.911 (1.06)	pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Sample: BGWC-24 **Lab ID: 2615561003** Collected: 03/01/19 12:04 Received: 03/01/19 16:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.69 ± 0.717 (0.522) C:87% T:NA	pCi/L	03/14/19 08:17	13982-63-3	
Radium-228	EPA 9320	0.676 ± 0.537 (1.06) C:72% T:80%	pCi/L	03/18/19 18:20	15262-20-1	
Total Radium	Total Radium Calculation	3.37 ± 1.25 (1.58)	pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Sample: BGWC-25 **Lab ID: 2615561004** Collected: 03/01/19 13:04 Received: 03/01/19 16:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.324 ± 0.125 (0.165) C:97% T:NA	pCi/L	03/13/19 18:51	13982-63-3	
Radium-228	EPA 9320	0.310 ± 0.464 (1.000) C:75% T:79%	pCi/L	03/18/19 18:20	15262-20-1	
Total Radium	Total Radium Calculation	0.634 ± 0.589 (1.17)	pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Sample: BGWC-19 **Lab ID: 2615561005** Collected: 03/01/19 13:56 Received: 03/01/19 16:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.515 ± 0.177 (0.233) C:88% T:NA	pCi/L	03/13/19 18:51	13982-63-3	
Radium-228	EPA 9320	0.474 ± 0.390 (0.780) C:69% T:86%	pCi/L	03/20/19 11:11	15262-20-1	
Total Radium	Total Radium Calculation	0.989 ± 0.567 (1.01)	pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Sample: BGWC-23 **Lab ID: 2615561006** Collected: 03/01/19 14:07 Received: 03/01/19 16:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.27 ± 0.271 (0.185) C:92% T:NA	pCi/L	03/13/19 18:51	13982-63-3	
Radium-228	EPA 9320	0.971 ± 0.497 (0.890) C:69% T:84%	pCi/L	03/20/19 11:11	15262-20-1	
Total Radium	Total Radium Calculation	2.24 ± 0.768 (1.08)	pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Sample: Dup-2		Lab ID: 2615561007	Collected: 03/01/19 00:00	Received: 03/01/19 16:57	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	4.94 ± 0.867 (0.339)		pCi/L	03/13/19 18:51	13982-63-3	
		C:47% T:NA					
Radium-228	EPA 9320	0.309 ± 0.497 (1.08)		pCi/L	03/18/19 18:19	15262-20-1	
		C:73% T:83%					
Total Radium	Total Radium Calculation	5.25 ± 1.36 (1.42)		pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Sample: FBL030119 **Lab ID: 2615561008** Collected: 03/01/19 14:40 Received: 03/01/19 16:57 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.309 ± 0.116 (0.146) C:98% T:NA	pCi/L	03/13/19 20:28	13982-63-3	
Radium-228	EPA 9320	0.420 ± 0.420 (0.869) C:67% T:85%	pCi/L	03/20/19 11:11	15262-20-1	
Total Radium	Total Radium Calculation	0.729 ± 0.536 (1.02)	pCi/L	03/21/19 13:16	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.657 ± 0.321 (0.369) C:95% T:NA	pCi/L	03/14/19 08:13	13982-63-3	
Radium-228	EPA 9320	0.411 ± 0.320 (0.627) C:73% T:89%	pCi/L	03/20/19 11:11	15262-20-1	
Total Radium	Total Radium Calculation	1.07 ± 0.641 (0.996)	pCi/L	03/21/19 13:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

QC Batch: 332854 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 2615561001, 2615561002, 2615561003, 2615561004, 2615561007

METHOD BLANK: 1619642 Matrix: Water

Associated Lab Samples: 2615561001, 2615561002, 2615561003, 2615561004, 2615561007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.381 ± 0.318 (0.630) C:77% T:89%	pCi/L	03/18/19 16:07	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

QC Batch:	332855	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2615561005, 2615561006, 2615561008, 2615561009		

METHOD BLANK:	1619643	Matrix:	Water
Associated Lab Samples:	2615561005, 2615561006, 2615561008, 2615561009		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.349 ± 0.394 (0.830) C:71% T:87%	pCi/L	03/20/19 11:10	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

QC Batch: 332856 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 2615561001, 2615561002, 2615561003, 2615561004, 2615561005, 2615561006, 2615561007, 2615561008

METHOD BLANK: 1619644 Matrix: Water
 Associated Lab Samples: 2615561001, 2615561002, 2615561003, 2615561004, 2615561005, 2615561006, 2615561007, 2615561008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.265 ± 0.116 (0.162) C:92% T:NA	pCi/L	03/13/19 20:28	

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 Bowen Ash Pond

Pace Project No.: 2615561

QC Batch: 332857

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2615561009

METHOD BLANK: 1619645

Matrix: Water

Associated Lab Samples: 2615561009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.424 ± 0.162 (0.231) C:91% T:NA	pCi/L	03/13/19 18:54	

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2615561

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615561001	BGWC-30	EPA 9315	332856		
2615561002	BGWC-22	EPA 9315	332856		
2615561003	BGWC-24	EPA 9315	332856		
2615561004	BGWC-25	EPA 9315	332856		
2615561005	BGWC-19	EPA 9315	332856		
2615561006	BGWC-23	EPA 9315	332856		
2615561007	Dup-2	EPA 9315	332856		
2615561008	FBL030119	EPA 9315	332856		
2615561009	EQBL030119	EPA 9315	332857		
2615561001	BGWC-30	EPA 9320	332854		
2615561002	BGWC-22	EPA 9320	332854		
2615561003	BGWC-24	EPA 9320	332854		
2615561004	BGWC-25	EPA 9320	332854		
2615561005	BGWC-19	EPA 9320	332855		
2615561006	BGWC-23	EPA 9320	332855		
2615561007	Dup-2	EPA 9320	332854		
2615561008	FBL030119	EPA 9320	332855		
2615561009	EQBL030119	EPA 9320	332855		
2615561001	BGWC-30	Total Radium Calculation	334844		
2615561002	BGWC-22	Total Radium Calculation	334844		
2615561003	BGWC-24	Total Radium Calculation	334844		
2615561004	BGWC-25	Total Radium Calculation	334844		
2615561005	BGWC-19	Total Radium Calculation	334844		
2615561006	BGWC-23	Total Radium Calculation	334844		
2615561007	Dup-2	Total Radium Calculation	334844		
2615561008	FBL030119	Total Radium Calculation	334844		
2615561009	EQBL030119	Total Radium Calculation	334844		

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	Attention:	Company Name	Page: Of	
Address: 2480 Maner Road	Copy To: Geosyntec	Address:	Regulatory Agency		
Allanta, GA 30339					
Email: jabraham@southernco.com	Purchase Order #: SCS10348606	Pace Project Manager: betisy.mcdaniel@pace-labs.com			
Phone: (404) 506-7239	Project Name: Plant Bowen Ash Pond	Pace Profile #: 315	State / Location:		
Fax:	Project #:		GA		
Requested Due Date:					

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# 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			
1	BGWC - 30	WT	3/1/19 1135		G		4	1	3						X	
2	BGWC - 22	WT	3/1/19 1140		G		6	1	5						X	
3	BGWC - 24	WT	3/1/19 1204		G		6	1	5						X	
4	BGWC - 25	WT	3/1/19 1304		G		4	1	3						X	
5	BGWC - 19	WT	3/1/19 1356		G		4	1	3						X	
6	BGWC - 23	WT	3/1/19 1407		G		4	1	3						X	
7	DUP - 2	WT	3/1/19		G		4	1	3						X	
8	FBL030119	WT	3/1/19 1440		G		4	1	3						X	
9	EQBL030119	WT	3/1/19 1445		G		4	1	3						X	
10																
11																
12																

ADDITIONAL COMMENTS	RECEIVED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received (Y/N)	Custody (Y/N)	Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)
	<i>[Signature]</i>	3/1/19	1657	<i>[Signature]</i>	3/1/19	1657	4.8	Y	Y	Y	Y	Y

JO# : 2615561

2615561

Page 20 of 21

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Robert Mull, Kevin Stephenson, Audrey Crafton

SIGNATURE of SAMPLER: *[Signature]* DATE Signed: 3/1/19



Sample Condition Upon Receipt

WO#: 2615561
PM: BM
CLIENT: GAPower-CCR
Due Date: 03/29/19

Client Name: GA Power

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 4.8C Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 082 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/11/19 CCR

Table with 16 rows and 3 columns. Columns: Question, Yes/No/N/A checkboxes, and Item Number. Rows include Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot # (if purchased).

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

8151A WSC

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)

March 18, 2019

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


RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615876

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 09, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615876

Atlanta Certification IDs

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 Bowen Ash Pond
Pace Project No.: 2615876

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615876001	BGWC-14	Water	03/06/19 13:55	03/09/19 09:05
2615876002	FBL030619	Water	03/06/19 15:18	03/09/19 09:05
2615876003	EQBL030619	Water	03/06/19 15:23	03/09/19 09:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615876

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615876001	BGWC-14	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615876002	FBL030619	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615876003	EQBL030619	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 Bowen Ash Pond

Pace Project No.: 2615876

Sample: BGWC-14		Lab ID: 2615876001		Collected: 03/06/19 13:55		Received: 03/09/19 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	0.00078	1	03/13/19 10:50	03/14/19 14:12	7440-36-0		
Arsenic	0.0015J	mg/L	0.0050	0.00057	1	03/13/19 10:50	03/14/19 14:12	7440-38-2		
Barium	0.065	mg/L	0.010	0.00078	1	03/13/19 10:50	03/14/19 14:12	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/13/19 10:50	03/14/19 14:12	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/13/19 10:50	03/14/19 14:12	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/13/19 10:50	03/14/19 14:12	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/13/19 10:50	03/14/19 14:12	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/13/19 10:50	03/14/19 14:12	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/13/19 10:50	03/14/19 14:12	7439-93-2		
Molybdenum	0.013	mg/L	0.010	0.0019	1	03/13/19 10:50	03/14/19 14:12	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/13/19 10:50	03/14/19 14:12	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/13/19 10:50	03/14/19 14:12	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/13/19 08:25	03/13/19 11:57	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.88	mg/L	0.30	0.029	1		03/12/19 22:30	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615876

Sample: FBL030619		Lab ID: 2615876002		Collected: 03/06/19 15:18		Received: 03/09/19 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	0.00078	1	03/13/19 10:50	03/14/19 14:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/13/19 10:50	03/14/19 14:18	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	03/13/19 10:50	03/14/19 14:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/13/19 10:50	03/14/19 14:18	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/13/19 10:50	03/14/19 14:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/13/19 10:50	03/14/19 14:18	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/13/19 10:50	03/14/19 14:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/13/19 10:50	03/14/19 14:18	7439-92-1	
Lithium	0.0020J	mg/L	0.050	0.00097	1	03/13/19 10:50	03/14/19 14:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/13/19 10:50	03/14/19 14:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/13/19 10:50	03/14/19 14:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/13/19 10:50	03/14/19 14:18	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/13/19 08:25	03/13/19 12:09	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/12/19 23:38	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615876

Sample: EQBL030619		Lab ID: 2615876003		Collected: 03/06/19 15:23		Received: 03/09/19 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	0.00078	1	03/13/19 10:50	03/14/19 14:24	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/13/19 10:50	03/14/19 14:24	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	03/13/19 10:50	03/14/19 14:24	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/13/19 10:50	03/14/19 14:24	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/13/19 10:50	03/14/19 14:24	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/13/19 10:50	03/14/19 14:24	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/13/19 10:50	03/14/19 14:24	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/13/19 10:50	03/14/19 14:24	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/13/19 10:50	03/14/19 14:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/13/19 10:50	03/14/19 14:24	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/13/19 10:50	03/14/19 14:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/13/19 10:50	03/14/19 14:24	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/13/19 08:25	03/13/19 12:16	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/13/19 00:00	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615876

QC Batch: 24123 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2615876001, 2615876002, 2615876003

METHOD BLANK: 108124 Matrix: Water

Associated Lab Samples: 2615876001, 2615876002, 2615876003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	03/13/19 11:53	

LABORATORY CONTROL SAMPLE: 108125

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: 108126 108127

Parameter	Units	2615876001 Result	MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Spike Conc.							
Mercury	mg/L	ND	0.0025	0.0025	0.0028	0.0026	111	103	75-125	8	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2615876

QC Batch: 24189 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2615876001, 2615876002, 2615876003

METHOD BLANK: 108347 Matrix: Water
Associated Lab Samples: 2615876001, 2615876002, 2615876003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/14/19 14:01	
Arsenic	mg/L	ND	0.0050	0.00057	03/14/19 14:01	
Barium	mg/L	ND	0.010	0.00078	03/14/19 14:01	
Beryllium	mg/L	ND	0.0030	0.000050	03/14/19 14:01	
Cadmium	mg/L	ND	0.0010	0.000093	03/14/19 14:01	
Chromium	mg/L	ND	0.010	0.0016	03/14/19 14:01	
Cobalt	mg/L	ND	0.010	0.00052	03/14/19 14:01	
Lead	mg/L	ND	0.0050	0.00027	03/14/19 14:01	
Lithium	mg/L	ND	0.050	0.00097	03/14/19 14:01	
Molybdenum	mg/L	ND	0.010	0.0019	03/14/19 14:01	
Selenium	mg/L	ND	0.010	0.0014	03/14/19 14:01	
Thallium	mg/L	ND	0.0010	0.00014	03/14/19 14:01	

LABORATORY CONTROL SAMPLE: 108348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 108349 108350

Parameter	Units	2615879006 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Spike Conc.						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	0	20	
Arsenic	mg/L	0.00085J	0.1	0.1	0.10	0.10	99	100	75-125	0	20	
Barium	mg/L	0.042	0.1	0.1	0.14	0.14	97	102	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.095	0.098	95	98	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615876

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 108349		108350		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2615879006 Result	MS Spike Conc.	MSD Spike Conc.								
Chromium	mg/L	ND	0.1	0.1	0.098	0.099	98	98	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20	
Lithium	mg/L	0.0015J	0.1	0.1	0.096	0.10	94	99	75-125	5	20	
Molybdenum	mg/L	0.0061J	0.1	0.1	0.11	0.11	103	102	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.099	97	99	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 Bowen Ash Pond
Pace Project No.: 2615876

QC Batch: 24135 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2615876001, 2615876002, 2615876003

METHOD BLANK: 108159 Matrix: Water
Associated Lab Samples: 2615876001, 2615876002, 2615876003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/12/19 21:45	

LABORATORY CONTROL SAMPLE: 108160

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: 108161 108162

Parameter	Units	2615876001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.88	10	10	10.0	10.1	92	92	90-110	1	15	

MATRIX SPIKE SAMPLE: 108163

Parameter	Units	2615876002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	9.6	96	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 Bowen Ash Pond

Pace Project No.: 2615876

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond
Pace Project No.: 2615876

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615876001	BGWC-14	EPA 3005A	24189	EPA 6020B	24210
2615876002	FBL030619	EPA 3005A	24189	EPA 6020B	24210
2615876003	EQBL030619	EPA 3005A	24189	EPA 6020B	24210
2615876001	BGWC-14	EPA 7470A	24123	EPA 7470A	24183
2615876002	FBL030619	EPA 7470A	24123	EPA 7470A	24183
2615876003	EQBL030619	EPA 7470A	24123	EPA 7470A	24183
2615876001	BGWC-14	EPA 300.0	24135		
2615876002	FBL030619	EPA 300.0	24135		
2615876003	EQBL030619	EPA 300.0	24135		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Southern Company Services
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
2480 Niner Road
Atlanta, GA 30339
 REPORT TO: John Abraham CC: Geosyntec
 REQUESTED COMPLETION DATE: PO# SC510348606
 PROJECT NAME/STATE: Plant Bowen Ash Pond
 PROJECT #:

CONTAINER TYPE	ANALYSIS REQUESTED				CONTAINER TYPE	PRESERVATION
	# of	PRESCRIPTION	P	P		
P - PLASTIC	7					1 - HCl, ≤6°C
A - AMBER GLASS						2 - H ₂ SO ₄ , ≤6°C
G - CLEAR GLASS						3 - HNO ₃
V - VOA VIAL						4 - NaOH, ≤6°C
S - STERILE						5 - NaOH/ZnAc, ≤6°C
O - OTHER						6 - Na ₂ S ₂ O ₃ , ≤6°C
						7 - ≤6°C not frozen

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED				CONTAINER TYPE	PRESERVATION
		# of	PRESCRIPTION	P	P		
DW - DRINKING WATER	S - SOIL						
WW - WASTEWATER	SL - SLUDGE						
GW - GROUNDWATER	SD - SOLID						
SW - SURFACE WATER	A - AIR						
ST - STORM WATER	L - LIQUID						
W - WATER	P - PRODUCT						

Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	RELINQUISHED BY:	DATE/TIME:
3/6/19	1355	GW	X	X	BGWC-14	Robert M. V. Aubrey Crafton	3/6/19 1600
3/6/19	1518	W	X	X	FBLO30619		
3/6/19	1523	W	X	X	EQ13LO30619		

RECEIVED BY LAB: Robert M. V. Aubrey Crafton DATE/TIME: 3/6/19 1600
 pH checked: NA No NA Yes NA No NA Max: NA
 RECEIVED BY: John Abraham DATE/TIME: 3/19/19 0905
 Temperature: 11°C Min: NA Max: NA
 SAMPLE SHIPPED VIA: Fed-Ex UPS EX USPS EX COURIER EX CLIENT EX OTHER EX FS EX
 Custody Seal: Intact Broken NA Not Present NA # of Coolers NA
 Relinquished by: Robert M. V. Aubrey Crafton DATE/TIME: 3/6/19 1600
 Relinquished by: John Abraham DATE/TIME: 3/19/19 0905
 Entered into LIMS: 3/19/19 0905
 Tracking #: 2615876

WO#: 2615876



Pace COC Revised



Sample Condition Upon Receipt

WO#: 2615876

Client Name: GA Power

PM: BM Due Date: 03/18/19 CLIENT: GAPower-CCR

Courier: [x] Fed Ex [] UPS [] USPS [] Client [] Commercial [] Pace Other

Tracking #: _____

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

Packing Material: [] Bubble Wrap [] Bubble Bags [] None [] Other

Thermometer Used 082 Type of Ice: [x] Wet [] Blue [] None [] Samples on ice, cooling process has begun

Cooler Temperature 1.1°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/9/19 [Signature]

Table with 16 rows and 3 columns. Columns: Description, Yes/No/N/A checkboxes, and Item Number. Rows include Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, 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)

April 02, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615877

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 09, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615877

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

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 Bowen Ash Pond

Pace Project No.: 2615877

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615877001	BGWC-14	Water	03/06/19 13:55	03/09/19 09:05
2615877002	FBL030619	Water	03/06/19 15:18	03/09/19 09:05
2615877003	EQBL030619	Water	03/06/19 15:23	03/09/19 09:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615877

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615877001	BGWC-14	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615877002	FBL030619	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615877003	EQBL030619	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615877

Sample: BGWC-14 **Lab ID: 2615877001** Collected: 03/06/19 13:55 Received: 03/09/19 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	7.31 ± 1.16 (0.206) C:81% T:NA	pCi/L	03/14/19 15:34	13982-63-3	
Radium-228	EPA 9320	2.15 ± 0.645 (0.824) C:77% T:89%	pCi/L	03/27/19 16:13	15262-20-1	
Total Radium	Total Radium Calculation	9.46 ± 1.81 (1.03)	pCi/L	03/28/19 15:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615877

Sample: FBL030619 **Lab ID: 2615877002** Collected: 03/06/19 15:18 Received: 03/09/19 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	0.189 ± 0.142 (0.251) C:91% T:NA	pCi/L	03/14/19 15:34	13982-63-3	
Radium-228	EPA 9320	0.385 ± 0.329 (0.657) C:78% T:89%	pCi/L	03/27/19 16:14	15262-20-1	
Total Radium	Total Radium Calculation	0.574 ± 0.471 (0.908)	pCi/L	03/28/19 15:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615877

Sample: EQBL030619 **Lab ID: 2615877003** Collected: 03/06/19 15:23 Received: 03/09/19 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	0.242 ± 0.126 (0.192) C:94% T:NA	pCi/L	03/14/19 15:34	13982-63-3	
Radium-228	EPA 9320	-0.298 ± 0.326 (0.820) C:74% T:86%	pCi/L	03/27/19 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.242 ± 0.452 (1.01)	pCi/L	03/28/19 15:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2615877

QC Batch:	333523	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2615877001, 2615877002, 2615877003		

METHOD BLANK:	1622805	Matrix:	Water
Associated Lab Samples:	2615877001, 2615877002, 2615877003		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.339 ± 0.328 (0.659) C:96% T:NA	pCi/L	03/15/19 09:04	

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 Bowen Ash Pond

Pace Project No.: 2615877

QC Batch: 334689

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2615877001

METHOD BLANK: 1628695

Matrix: Water

Associated Lab Samples: 2615877001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0633 ± 0.285 (0.651) C:77% T:86%	pCi/L	03/27/19 12:58	

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 Bowen Ash Pond

Pace Project No.: 2615877

QC Batch: 334690

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2615877002, 2615877003

METHOD BLANK: 1628696

Matrix: Water

Associated Lab Samples: 2615877002, 2615877003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.646 ± 0.338 (0.565) C:74% T:86%	pCi/L	03/27/19 16:14	

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 Bowen Ash Pond
Pace Project No.: 2615877

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 Bowen Ash Pond

Pace Project No.: 2615877

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615877001	BGWC-14	EPA 9315	333523		
2615877002	FBL030619	EPA 9315	333523		
2615877003	EQBL030619	EPA 9315	333523		
2615877001	BGWC-14	EPA 9320	334689		
2615877002	FBL030619	EPA 9320	334690		
2615877003	EQBL030619	EPA 9320	334690		
2615877001	BGWC-14	Total Radium Calculation	335992		
2615877002	FBL030619	Total Radium Calculation	335992		
2615877003	EQBL030619	Total Radium Calculation	335992		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: _____ OF _____

CLIENT NAME: Southern Company Services
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
2480 Mower Road
Atlanta, GA 30339
 REPORT TO: John Abraham CC: Geosyntec
 REQUESTED COMPLETION DATE: SCS10348606
 PROJECT NAME/STATE: Plant Bowen Ash Pond
 PROJECT #:

CONTAINER TYPE	ANALYSIS REQUESTED	DATE/TIME	RELINQUISHED BY:	DATE/TIME
P - PLASTIC				
A - AMBER GLASS				
G - CLEAR GLASS				
V - VOA VIAL				
S - STERILE				
O - OTHER				

CONTAINER TYPE	ANALYSIS REQUESTED	DATE/TIME	RELINQUISHED BY:	DATE/TIME
P - PLASTIC				
A - AMBER GLASS				
G - CLEAR GLASS				
V - VOA VIAL				
S - STERILE				
O - OTHER				

CONTAINER TYPE	ANALYSIS REQUESTED	DATE/TIME	RELINQUISHED BY:	DATE/TIME
P - PLASTIC				
A - AMBER GLASS				
G - CLEAR GLASS				
V - VOA VIAL				
S - STERILE				
O - OTHER				

CONTAINER TYPE	ANALYSIS REQUESTED	DATE/TIME	RELINQUISHED BY:	DATE/TIME
P - PLASTIC				
A - AMBER GLASS				
G - CLEAR GLASS				
V - VOA VIAL				
S - STERILE				
O - OTHER				

SAMPLED BY AND TITLE: Robert Hill / Hubert Carlton DATE/TIME: 3/6/19 1600
 RECEIVED BY: _____ DATE/TIME: _____
 RECEIVED BY LAB: Plant Bowen Ash Pond DATE/TIME: 3/6/19 0905
 pH checked: _____ Temperature: Min: 11°C Max: _____
 # of Coolers: _____ Broken: _____ Not Present: _____
 CUSTODY SEAL: Intact: _____ Broken: _____
 SAMPLE SHIPPED VIA: UPS FEDEX USPS _____ COURIER _____ CLIENT _____ OTHER _____
 COOLER ID: _____
 ENTERED INTO LIMS: _____ TRACKING #: _____
 FOR LAB USE ONLY
 LAB #: _____
 WORK#: **2615877**





Sample Condition Upon Receipt

WO#: 2615877

Client Name: GA Power

PM: BM

Due Date: 04/08/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 082 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 1.1°C Biological Tissue is Frozen: Yes No

Proj. Due Date: _____ Proj. Name: _____

Date and Initials of person examining contents: 3/9/19

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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" 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 checked="" 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:

Person Contacted: _____ Date/Time: _____ Field Data Required? Y / N

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 DEHN Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

March 16, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2615880

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 09, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615880

Atlanta Certification IDs

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 Bowen Ash Pond
Pace Project No.: 2615880

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615880001	BGWC-34D	Water	03/04/19 14:54	03/09/19 09:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2615880

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615880001	BGWC-34D	EPA 6020B	CSW	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615880

Sample: BGWC-34D		Lab ID: 2615880001		Collected: 03/04/19 14:54	Received: 03/09/19 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							
Arsenic	0.020	mg/L	0.0050	0.00057	1	03/13/19 10:50	03/14/19 17:19	7440-38-2	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2615880

QC Batch: 24189	Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A	Analysis Description: 6020B MET
Associated Lab Samples: 2615880001	

METHOD BLANK: 108347 Matrix: Water
Associated Lab Samples: 2615880001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	03/14/19 14:01	

LABORATORY CONTROL SAMPLE: 108348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 108349 108350

Parameter	Units	108349		108350		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2615879006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Arsenic	mg/L	0.00085J	0.1	0.1	0.10	0.10	99	100	75-125	0	20

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

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2615880

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2615880

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615880001	BGWC-34D	EPA 3005A	24189	EPA 6020B	24210

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 Maner Road, Atlanta, GA 30339
 Email: jbraham@southernco.com
 Phone: (404) 506-7239
 Requested Due Date: _____

Section B
Required Project Information:
 Report To: Jolu Abraham
 Copy To: Geosyntec
 Purchase Order #: SCS10348506
 Project Name: Plant Bowen Ash Pond
 Project #: _____

Section C
Invoice Information:
 Attention: _____
 Company Name: _____
 Address: _____
 Pace Quote: _____
 Pace Project Manager: beisy.mcdaniels@paceilabs.com
 Pace Profile #: 315
 State / Location: GA
 Regulatory Agency: _____

Page: _____ Of _____

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G-GRAB C-COMP)	MATRIX CODE (see valid codes to left)	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received in Ice (Y/N)	Custody Sealed (Y/N)	Cooler (Y/N)	Samples Intact (Y/N)	
			START	END														
1	Drinking Water	DW	3/4/19	1454	WT C	WT C	Kevin Stinson	3/4/19	1454	Robert M. Hill	3/4/19	0805	11	Y	Y	Y	Y	
2	Water	WT																
3	Waste Water	WW																
4	Product	P																
5	Solid	SL																
6	Oil	OL																
7	Wipes	WP																
8	Air	AR																
9	Other	OT																
10	Tissue	TS																
11																		
12																		

ADDITIONAL COMMENTS:
 Relinquished by: Kevin Stinson
 Accepted by: Robert M. Hill
 Date: 3/4/19
 Time: 0805

SAMPLER NAME AND SIGNATURE:
 PRINT Name of SAMPLER: Robert M. Hill
 SIGNATURE of SAMPLER: [Signature]

DATE SIGNED: 3/4/19

WO#: 2615880

2615880



Sample Condition Upon Receipt

WO#: 2615880

Client Name: GA Power

PM: BM

Due Date: 03/18/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 082 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 1.1°C
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/9/19 BM

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 checked="" 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)

May 07, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617064

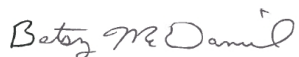
Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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 one issued on 4/15/2019. The report has been revised to correct metals units and target list per consultant request. No other changes have been made to this 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617064

Atlanta Certification IDs

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

Asheville Certification IDs

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 Bowen Ash Pond

Pace Project No.: 2617064

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617064001	BGWC-32	Water	04/05/19 09:36	04/05/19 12:42

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond
Pace Project No.: 2617064

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617064001	BGWC-32	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617064

Sample: BGWC-32		Lab ID: 2617064001		Collected: 04/05/19 09:36		Received: 04/05/19 12:42		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00093J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 22:28	7440-38-2		
Barium	0.085	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 22:28	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 22:28	7440-41-7		
Boron	4.6J	mg/L	5.0	0.13	50	04/09/19 20:29	04/11/19 17:59	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 22:28	7440-43-9		
Calcium	265	mg/L	25.0	1.0	50	04/09/19 20:29	04/11/19 17:59	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 22:28	7440-47-3		
Cobalt	0.011	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 22:28	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 22:28	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 22:28	7439-93-2		
Molybdenum	0.0035J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 22:28	7439-98-7		
Selenium	0.00015J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 22:28	7782-49-2		
Thallium	0.00046J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 22:28	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:01	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1160	mg/L	25.0	10.0	1		04/11/19 20:53			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	270	mg/L	12.5	1.2	50		04/09/19 11:11	16887-00-6		
Fluoride	0.66	mg/L	0.30	0.029	1		04/09/19 09:27	16984-48-8		
Sulfate	312	mg/L	50.0	0.85	50		04/09/19 11:11	14808-79-8		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617064

QC Batch: 468368

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2617064001

METHOD BLANK: 2544203

Matrix: Water

Associated Lab Samples: 2617064001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	04/11/19 17:59	

LABORATORY CONTROL SAMPLE: 2544204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544205 2544206

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92421822002 Result	Spike Conc.	Spike Conc.	MS Result						
Mercury	mg/L				0.0024	0.0023			2	25	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617064

QC Batch: 468329 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 2617064001

METHOD BLANK: 2544088 Matrix: Water
Associated Lab Samples: 2617064001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	0.000062J	0.0050	0.000060	04/10/19 19:29	
Barium	mg/L	ND	0.010	0.000060	04/10/19 19:29	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/19 19:29	
Boron	mg/L	ND	0.10	0.0026	04/10/19 19:29	
Cadmium	mg/L	ND	0.0010	0.000070	04/10/19 19:29	
Calcium	mg/L	ND	0.50	0.021	04/10/19 19:29	
Chromium	mg/L	ND	0.010	0.00042	04/10/19 19:29	
Cobalt	mg/L	ND	0.010	0.000050	04/10/19 19:29	
Lead	mg/L	ND	0.0050	0.000050	04/10/19 19:29	BC
Lithium	mg/L	ND	0.050	0.00042	04/10/19 19:29	
Molybdenum	mg/L	ND	0.010	0.00010	04/10/19 19:29	
Selenium	mg/L	ND	0.010	0.000080	04/10/19 19:29	
Thallium	mg/L	ND	0.0010	0.000060	04/10/19 19:29	

LABORATORY CONTROL SAMPLE: 2544089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.01	0.010	103	80-120	
Barium	mg/L	0.05	0.050	99	80-120	
Beryllium	mg/L	0.01	0.0095	95	80-120	
Boron	mg/L	0.05	0.049J	98	80-120	
Cadmium	mg/L	0.01	0.010	102	80-120	
Calcium	mg/L	0.62	0.64	102	80-120	
Chromium	mg/L	0.05	0.050	101	80-120	
Cobalt	mg/L	0.01	0.010	101	80-120	
Lead	mg/L	0.05	0.051	101	80-120	BC
Lithium	mg/L	0.05	0.052	104	80-120	
Molybdenum	mg/L	0.05	0.052	103	80-120	
Selenium	mg/L	0.05	0.051	102	80-120	
Thallium	mg/L	0.01	0.010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544090 2544091

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2617082009 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Arsenic	mg/L	0.00012J	0.01	0.01	0.0092	0.0091	91	90	75-125	1	20	
Barium	mg/L	0.025	0.05	0.05	0.068	0.067	87	85	75-125	2	20	
Beryllium	mg/L	ND	0.01	0.01	0.0081	0.0080	80	79	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617064

Parameter	Units	2544090		2544091		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2617082009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Boron	mg/L	0.49J	0.05	0.05	0.56	0.58	137	180	75-125	4	20	M1	
Cadmium	mg/L	ND	0.01	0.01	0.0091	0.0091	91	90	75-125	0	20		
Calcium	mg/L	55.8	0.62	0.62	54.5	53.7	-203	-330	75-125	1	20	M6	
Chromium	mg/L	ND	0.05	0.05	0.045	0.044	89	88	75-125	1	20		
Cobalt	mg/L	0.00010J	0.01	0.01	0.0089J	0.0088J	88	87	75-125	1	20		
Lead	mg/L	ND	0.05	0.05	0.044	0.045	88	90	75-125	2	20		
Lithium	mg/L	ND	0.05	0.05	0.044J	0.044J	89	87	75-125	2	20		
Molybdenum	mg/L	ND	0.05	0.05	0.046	0.046	92	93	75-125	1	20		
Selenium	mg/L	0.00091J	0.05	0.05	0.046	0.045	90	88	75-125	2	20		
Thallium	mg/L	ND	0.01	0.01	0.0088	0.0090	88	90	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617064

QC Batch: 26252	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2617064001	

LABORATORY CONTROL SAMPLE: 118510

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 118512

Parameter	Units	2617150003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2310	2380	3	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617064

QC Batch: 25956 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2617064001

METHOD BLANK: 117263 Matrix: Water
Associated Lab Samples: 2617064001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.066J	0.25	0.024	04/08/19 22:43	
Fluoride	mg/L	ND	0.30	0.029	04/08/19 22:43	
Sulfate	mg/L	0.045J	1.0	0.017	04/08/19 22:43	

LABORATORY CONTROL SAMPLE: 117264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.8	98	90-110	
Fluoride	mg/L	10	9.7	97	90-110	
Sulfate	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117265 117266

Parameter	Units	2617035001		2617035002		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	% Rec					
Chloride	mg/L	4.3	10	10	14.3	14.4	100	101	90-110	1	15		
Fluoride	mg/L	ND	10	10	9.7	9.8	97	98	90-110	1	15		
Sulfate	mg/L	8.5	10	10	17.6	17.7	91	92	90-110	0	15		

MATRIX SPIKE SAMPLE: 117267

Parameter	Units	2617035002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.2	10	13.9	96	90-110	
Fluoride	mg/L	ND	10	9.3	93	90-110	
Sulfate	mg/L	2.1	10	11.2	91	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

This report shall not be reproduced, except in full,
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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617064

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

BC The same analyte was detected in an associated blank at a concentration above 1/2 the reporting limit but below the laboratory reporting limit.

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

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 Bowen Ash Pond

Pace Project No.: 2617064

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617064001	BGWC-32	EPA 3010A	468329	EPA 6020B	468391
2617064001	BGWC-32	EPA 7470A	468368	EPA 7470A	468610
2617064001	BGWC-32	SM 2540C	26252		
2617064001	BGWC-32	EPA 300.0	25956		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 2617064

Client Name: GA Power

PM: BM

Due Date: 04/12/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 082 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 2.0°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 4/5/19 CCR

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)

April 29, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617065

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617065

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 Bowen Ash Pond

Pace Project No.: 2617065

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617065001	BGWC-32	Water	04/05/19 09:36	04/05/19 12:42

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2617065

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617065001	BGWC-32	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617065

Sample: BGWC-32 **Lab ID: 2617065001** Collected: 04/05/19 09:36 Received: 04/05/19 12:42 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.18 ± 0.450 (0.450) C:88% T:NA	pCi/L	04/17/19 08:36	13982-63-3	
Radium-228	EPA 9320	1.02 ± 0.402 (0.629) C:86% T:88%	pCi/L	04/18/19 12:30	15262-20-1	
Total Radium	Total Radium Calculation	2.20 ± 0.852 (1.08)	pCi/L	04/22/19 11:17	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617065

QC Batch: 337917

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2617065001

METHOD BLANK: 1644525

Matrix: Water

Associated Lab Samples: 2617065001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.221 ± 0.211 (0.378) C:90% T:NA	pCi/L	04/17/19 08:36	

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 Bowen Ash Pond

Pace Project No.: 2617065

QC Batch: 337911

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2617065001

METHOD BLANK: 1644521

Matrix: Water

Associated Lab Samples: 2617065001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.526 ± 0.315 (0.569) C:87% T:76%	pCi/L	04/18/19 12:31	

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 Bowen Ash Pond

Pace Project No.: 2617065

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 Bowen Ash Pond
Pace Project No.: 2617065

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617065001	BGWC-32	EPA 9315	337917		
2617065001	BGWC-32	EPA 9320	337911		
2617065001	BGWC-32	Total Radium Calculation	339290		

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 Maner Road Atlanta, GA 30339
Email: jbraham@southernco.com
Phone: (404) 506-7239
Requested Due Date: _____

Section B Required Project Information:
Report To: Joju Abraham
Copy To: Geosyntec
Whitney Law
Purchase Order #: SCS10346606
Project Name: Plant Bowen Ash Pond
Project #: _____

Section C Invoice Information:
Attention: _____
Company Name: _____
Address: _____
Pace Quote: _____
Pace Project Manager: betsy.mcdaniel@pacelabs.com
Pace Profile #: 315
Regulatory Agency: _____
State / Location: GA

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G-GRAB C-COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES	ANALYSES TEST Y/N	REQUESTED ANALYSIS FILTERED (Y/N)		TEMP IN C	RECEIVED ON	CUSTODY SEALED (Y/N)	COOLER (Y/N)	SAMPLES INTACT (Y/N)	
			DATE	TIME						RESIDUAL CHLORINE (Y/N)	OTHER						
1	BWC-32	DW	4/5/19	0936	WG	WG	4	H2SO4 HNO3 HCl NaOH Na2S2O3 Methanol Other	X X X X X	X X X X	X X X	21					
2		WT															
3		WW															
4		P															
5		SL															
6		OL															
7		WP															
8		AR															
9		OT															
10		TS															
11																	
12																	

ADDITIONAL COMMENTS: Veronica Fay Resoluc 4/5/19 12:42
RELINQUISHED BY / AFFILIATION: Veronica Fay
DATE: 4/5/19
TIME: 12:42
ACCEPTED BY / AFFILIATION: Veronica Fay
DATE: 4/5/19
TIME: 12:42
RESIDUAL CHLORINE (Y/N): X
OTHER: X
ANALYSES TEST Y/N: X
TEMP IN C: 21
RECEIVED ON: 4/5/19
CUSTODY SEALED (Y/N): X
COOLER (Y/N): X
SAMPLES INTACT (Y/N): X

SAMPLER NAME AND SIGNATURE: Veronica Fay
PRINT Name of SAMPLER: Veronica Fay
SIGNATURE of SAMPLER: Veronica Fay
DATE Signed: 4/5/19





Sample Condition Upon Receipt

WO#: 2617065

Client Name: GAPower

PM: BM

Due Date: 05/03/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Proj. Due Date: _____
Proj. Name: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 082 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 2.0°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 4/5/19 CCR

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 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 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)

May 03, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617076

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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 one issued on 4/13/2019. The report has been revised to correct metals units and target list per consultant request. No other changes have been made to this 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Atlanta Certification IDs

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

Asheville Certification IDs

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

This report shall not be reproduced, except in full,
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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond
Pace Project No.: 2617076

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617076001	BGWA-33	Water	04/03/19 10:28	04/05/19 11:20
2617076002	BGWC-19	Water	04/03/19 11:55	04/05/19 11:20
2617076003	BGWC-20	Water	04/03/19 10:30	04/05/19 11:20
2617076004	BGWC-21	Water	04/03/19 14:05	04/05/19 11:20
2617076005	BGWC-22	Water	04/03/19 11:18	04/05/19 11:20
2617076006	BGWC-23	Water	04/03/19 09:38	04/05/19 11:20
2617076007	BGWC-24	Water	04/03/19 16:36	04/05/19 11:20
2617076008	FBL040319	Water	04/03/19 12:46	04/05/19 11:20
2617076009	EQBL040319	Water	04/03/19 12:50	04/05/19 11:20

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond
Pace Project No.: 2617076

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617076001	BGWA-33	EPA 6020B	JMW1	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617076002	BGWC-19	EPA 6020B	JMW1	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617076003	BGWC-20	EPA 6020B	JMW1	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617076004	BGWC-21	EPA 6020B	JMW1	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617076005	BGWC-22	EPA 6020B	JMW1	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617076006	BGWC-23	EPA 6020B	JMW1	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617076007	BGWC-24	EPA 6020B	JMW1, KQ	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617076008	FBL040319	EPA 6020B	JMW1	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617076009	EQBL040319	EPA 6020B	JMW1	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Sample: BGWA-33		Lab ID: 2617076001		Collected: 04/03/19 10:28	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.0020J	mg/L	0.0050	0.000060	1	04/09/19 10:55	04/10/19 02:14	7440-38-2	
Barium	0.025	mg/L	0.010	0.000060	1	04/09/19 10:55	04/10/19 02:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 10:55	04/10/19 02:14	7440-41-7	
Boron	0.66	mg/L	0.10	0.0026	1	04/09/19 10:55	04/10/19 02:14	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 10:55	04/10/19 02:14	7440-43-9	
Calcium	44.9	mg/L	0.50	0.021	1	04/09/19 10:55	04/10/19 02:14	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 10:55	04/10/19 02:14	7440-47-3	
Cobalt	0.00011J	mg/L	0.010	0.000050	1	04/09/19 10:55	04/10/19 02:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 10:55	04/10/19 02:14	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 10:55	04/10/19 02:14	7439-93-2	
Molybdenum	0.034	mg/L	0.010	0.00010	1	04/09/19 10:55	04/10/19 02:14	7439-98-7	
Selenium	0.00013J	mg/L	0.010	0.000080	1	04/09/19 10:55	04/10/19 02:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 10:55	04/10/19 02:14	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:22	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	235	mg/L	25.0	10.0	1		04/10/19 16:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.2	mg/L	0.25	0.024	1		04/10/19 02:15	16887-00-6	
Fluoride	0.085J	mg/L	0.30	0.029	1		04/10/19 02:15	16984-48-8	
Sulfate	26.2	mg/L	1.0	0.017	1		04/10/19 02:15	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Sample: BGWC-19 Lab ID: 2617076002 Collected: 04/03/19 11:55 Received: 04/05/19 11:20 Matrix: Water										
Parameters	Results	Units	Report Limit		MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A										
Arsenic	0.00017J	mg/L	0.0050	0.000060		1	04/09/19 10:55	04/10/19 02:18	7440-38-2	
Barium	0.033	mg/L	0.010	0.000060		1	04/09/19 10:55	04/10/19 02:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050		1	04/09/19 10:55	04/10/19 02:18	7440-41-7	
Boron	0.51	mg/L	0.10	0.0026		1	04/09/19 10:55	04/10/19 02:18	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070		1	04/09/19 10:55	04/10/19 02:18	7440-43-9	
Calcium	51.3	mg/L	0.50	0.021		1	04/09/19 10:55	04/10/19 02:18	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042		1	04/09/19 10:55	04/10/19 02:18	7440-47-3	
Cobalt	0.000072J	mg/L	0.010	0.000050		1	04/09/19 10:55	04/10/19 02:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050		1	04/09/19 10:55	04/10/19 02:18	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042		1	04/09/19 10:55	04/10/19 02:18	7439-93-2	
Molybdenum	0.00023J	mg/L	0.010	0.00010		1	04/09/19 10:55	04/10/19 02:18	7439-98-7	
Selenium	0.00058J	mg/L	0.010	0.000080		1	04/09/19 10:55	04/10/19 02:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060		1	04/09/19 10:55	04/10/19 02:18	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A										
Mercury	ND	mg/L	0.00020	0.00010		1	04/10/19 12:38	04/11/19 19:25	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C										
Total Dissolved Solids	259	mg/L	25.0	10.0		1		04/10/19 16:34		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0										
Chloride	9.7	mg/L	0.25	0.024		1		04/10/19 02:39	16887-00-6	
Fluoride	0.051J	mg/L	0.30	0.029		1		04/10/19 02:39	16984-48-8	
Sulfate	90.6	mg/L	10.0	0.17		10		04/10/19 09:31	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Sample: BGWC-20		Lab ID: 2617076003		Collected: 04/03/19 10:30	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.00027J	mg/L	0.0050	0.000060	1	04/09/19 10:55	04/10/19 02:21	7440-38-2	
Barium	0.029	mg/L	0.010	0.000060	1	04/09/19 10:55	04/10/19 02:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 10:55	04/10/19 02:21	7440-41-7	
Boron	2.6	mg/L	0.10	0.0026	1	04/09/19 10:55	04/10/19 02:21	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 10:55	04/10/19 02:21	7440-43-9	
Calcium	220	mg/L	0.50	0.021	1	04/09/19 10:55	04/10/19 02:21	7440-70-2	
Chromium	0.00088J	mg/L	0.010	0.00042	1	04/09/19 10:55	04/10/19 02:21	7440-47-3	
Cobalt	0.00024J	mg/L	0.010	0.000050	1	04/09/19 10:55	04/10/19 02:21	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 10:55	04/10/19 02:21	7439-92-1	
Lithium	0.012J	mg/L	0.050	0.00042	1	04/09/19 10:55	04/10/19 02:21	7439-93-2	
Molybdenum	0.012	mg/L	0.010	0.00010	1	04/09/19 10:55	04/10/19 02:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 10:55	04/10/19 02:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 10:55	04/10/19 02:21	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:27	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1090	mg/L	25.0	10.0	1		04/10/19 16:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	144	mg/L	12.5	1.2	50		04/10/19 09:54	16887-00-6	
Fluoride	0.072J	mg/L	0.30	0.029	1		04/10/19 03:02	16984-48-8	
Sulfate	593	mg/L	50.0	0.85	50		04/10/19 09:54	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617076

Sample: BGWC-21		Lab ID: 2617076004		Collected: 04/03/19 14:05		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00038J	mg/L	0.0050	0.000060	1	04/09/19 10:55	04/10/19 02:35	7440-38-2		
Barium	0.033	mg/L	0.010	0.000060	1	04/09/19 10:55	04/10/19 02:35	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 10:55	04/10/19 02:35	7440-41-7		
Boron	0.12	mg/L	0.10	0.0026	1	04/09/19 10:55	04/10/19 02:35	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 10:55	04/10/19 02:35	7440-43-9		
Calcium	43.4	mg/L	0.50	0.021	1	04/09/19 10:55	04/10/19 02:35	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 10:55	04/10/19 02:35	7440-47-3		
Cobalt	0.00064J	mg/L	0.010	0.000050	1	04/09/19 10:55	04/10/19 02:35	7440-48-4		
Lead	0.000068J	mg/L	0.0050	0.000050	1	04/09/19 10:55	04/10/19 02:35	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 10:55	04/10/19 02:35	7439-93-2		
Molybdenum	0.0019J	mg/L	0.010	0.00010	1	04/09/19 10:55	04/10/19 02:35	7439-98-7		
Selenium	0.00012J	mg/L	0.010	0.000080	1	04/09/19 10:55	04/10/19 02:35	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 10:55	04/10/19 02:35	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:29	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	244	mg/L	25.0	10.0	1		04/10/19 16:35			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	5.0	mg/L	0.25	0.024	1		04/10/19 03:25	16887-00-6		
Fluoride	0.032J	mg/L	0.30	0.029	1		04/10/19 03:25	16984-48-8		
Sulfate	61.9	mg/L	5.0	0.085	5		04/10/19 11:49	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617076

Sample: BGWC-22		Lab ID: 2617076005		Collected: 04/03/19 11:18	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.0021J	mg/L	0.0050	0.000060	1	04/09/19 10:55	04/10/19 02:38	7440-38-2	
Barium	0.082	mg/L	0.010	0.000060	1	04/09/19 10:55	04/10/19 02:38	7440-39-3	
Beryllium	0.000067J	mg/L	0.0030	0.000050	1	04/09/19 10:55	04/10/19 02:38	7440-41-7	
Boron	7.9	mg/L	0.10	0.0026	1	04/09/19 10:55	04/10/19 02:38	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 10:55	04/10/19 02:38	7440-43-9	
Calcium	458	mg/L	0.50	0.021	1	04/09/19 10:55	04/10/19 02:38	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 10:55	04/10/19 02:38	7440-47-3	
Cobalt	0.019	mg/L	0.010	0.000050	1	04/09/19 10:55	04/10/19 02:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 10:55	04/10/19 02:38	7439-92-1	
Lithium	0.024J	mg/L	0.050	0.00042	1	04/09/19 10:55	04/10/19 02:38	7439-93-2	
Molybdenum	0.039	mg/L	0.010	0.00010	1	04/09/19 10:55	04/10/19 02:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 10:55	04/10/19 02:38	7782-49-2	
Thallium	0.00070J	mg/L	0.0010	0.000060	1	04/09/19 10:55	04/10/19 02:38	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:32	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	2180	mg/L	25.0	10.0	1		04/10/19 16:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	856	mg/L	12.5	1.2	50		04/10/19 12:11	16887-00-6	
Fluoride	0.23J	mg/L	0.30	0.029	1		04/10/19 03:48	16984-48-8	
Sulfate	720	mg/L	50.0	0.85	50		04/10/19 12:11	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Sample: BGWC-23 Lab ID: 2617076006 Collected: 04/03/19 09:38 Received: 04/05/19 11:20 Matrix: Water										
Parameters	Results	Units	Report Limit		MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A										
Arsenic	0.00093J	mg/L	0.0050	0.000060		1	04/09/19 10:55	04/10/19 02:42	7440-38-2	
Barium	0.087	mg/L	0.010	0.000060		1	04/09/19 10:55	04/10/19 02:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050		1	04/09/19 10:55	04/10/19 02:42	7440-41-7	
Boron	6.5	mg/L	0.10	0.0026		1	04/09/19 10:55	04/10/19 02:42	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070		1	04/09/19 10:55	04/10/19 02:42	7440-43-9	
Calcium	396	mg/L	0.50	0.021		1	04/09/19 10:55	04/10/19 02:42	7440-70-2	
Chromium	0.00057J	mg/L	0.010	0.00042		1	04/09/19 10:55	04/10/19 02:42	7440-47-3	
Cobalt	0.00058J	mg/L	0.010	0.000050		1	04/09/19 10:55	04/10/19 02:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050		1	04/09/19 10:55	04/10/19 02:42	7439-92-1	
Lithium	0.013J	mg/L	0.050	0.00042		1	04/09/19 10:55	04/10/19 02:42	7439-93-2	
Molybdenum	0.012	mg/L	0.010	0.00010		1	04/09/19 10:55	04/10/19 02:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080		1	04/09/19 10:55	04/10/19 02:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060		1	04/09/19 10:55	04/10/19 02:42	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A										
Mercury	ND	mg/L	0.00020	0.00010		1	04/10/19 12:38	04/11/19 19:34	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C										
Total Dissolved Solids	1990	mg/L	25.0	10.0		1		04/10/19 16:35		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0										
Chloride	679	mg/L	12.5	1.2		50		04/10/19 12:34	16887-00-6	
Fluoride	0.10J	mg/L	0.30	0.029		1		04/10/19 04:10	16984-48-8	
Sulfate	603	mg/L	50.0	0.85		50		04/10/19 12:34	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Sample: BGWC-24		Lab ID: 2617076007		Collected: 04/03/19 16:36	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.0019J	mg/L	0.0050	0.000060	1	04/09/19 10:55	04/10/19 02:45	7440-38-2	
Barium	0.095	mg/L	0.010	0.000060	1	04/09/19 10:55	04/10/19 02:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 10:55	04/10/19 02:45	7440-41-7	
Boron	23.3	mg/L	0.10	0.0026	1	04/09/19 10:55	04/10/19 02:45	7440-42-8	
Cadmium	0.0053	mg/L	0.0010	0.000070	1	04/09/19 10:55	04/10/19 02:45	7440-43-9	
Calcium	945	mg/L	50.0	2.1	100	05/01/19 17:00	05/03/19 12:09	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 10:55	04/10/19 02:45	7440-47-3	
Cobalt	0.0048J	mg/L	0.010	0.000050	1	04/09/19 10:55	04/10/19 02:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 10:55	04/10/19 02:45	7439-92-1	
Lithium	0.0048J	mg/L	0.050	0.00042	1	04/09/19 10:55	04/10/19 02:45	7439-93-2	
Molybdenum	0.00095J	mg/L	0.010	0.00010	1	04/09/19 10:55	04/10/19 02:45	7439-98-7	
Selenium	0.0038J	mg/L	0.010	0.000080	1	04/09/19 10:55	04/10/19 02:45	7782-49-2	
Thallium	0.00064J	mg/L	0.0010	0.000060	1	04/09/19 10:55	04/10/19 02:45	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.0013	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:36	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	13.0J	mg/L	25.0	10.0	1		04/10/19 16:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	1890	mg/L	12.5	1.2	50		04/12/19 15:33	16887-00-6	
Fluoride	3.0	mg/L	0.30	0.029	1		04/10/19 04:34	16984-48-8	
Sulfate	648	mg/L	50.0	0.85	50		04/12/19 15:33	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Sample: FBL040319		Lab ID: 2617076008		Collected: 04/03/19 12:46	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	ND	mg/L	0.0050	0.000060	1	04/09/19 10:55	04/10/19 02:49	7440-38-2	
Barium	0.000086J	mg/L	0.010	0.000060	1	04/09/19 10:55	04/10/19 02:49	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 10:55	04/10/19 02:49	7440-41-7	
Boron	0.93	mg/L	0.10	0.0026	1	04/09/19 10:55	04/10/19 02:49	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 10:55	04/10/19 02:49	7440-43-9	
Calcium	0.090J	mg/L	0.50	0.021	1	04/09/19 10:55	04/10/19 02:49	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 10:55	04/10/19 02:49	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000050	1	04/09/19 10:55	04/10/19 02:49	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 10:55	04/10/19 02:49	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 10:55	04/10/19 02:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 10:55	04/10/19 02:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 10:55	04/10/19 02:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 10:55	04/10/19 02:49	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:39	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	12.0J	mg/L	25.0	10.0	1		04/10/19 16:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.31	mg/L	0.25	0.024	1		04/10/19 06:28	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 06:28	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		04/10/19 06:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Sample: EQBL040319		Lab ID: 2617076009		Collected: 04/03/19 12:50		Received: 04/05/19 11:20		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	ND	mg/L	0.0050	0.000060	1	04/09/19 10:55	04/10/19 02:52	7440-38-2	
Barium	ND	mg/L	0.010	0.000060	1	04/09/19 10:55	04/10/19 02:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 10:55	04/10/19 02:52	7440-41-7	
Boron	0.32	mg/L	0.10	0.0026	1	04/09/19 10:55	04/10/19 02:52	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 10:55	04/10/19 02:52	7440-43-9	
Calcium	0.026J	mg/L	0.50	0.021	1	04/09/19 10:55	04/10/19 02:52	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 10:55	04/10/19 02:52	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000050	1	04/09/19 10:55	04/10/19 02:52	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 10:55	04/10/19 02:52	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 10:55	04/10/19 02:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 10:55	04/10/19 02:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 10:55	04/10/19 02:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 10:55	04/10/19 02:52	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:41	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	45.0	mg/L	25.0	10.0	1		04/10/19 16:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.32	mg/L	0.25	0.024	1		04/10/19 06:51	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 06:51	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		04/10/19 06:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

QC Batch: 468366 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 2617076001, 2617076002, 2617076003, 2617076004, 2617076005, 2617076006, 2617076007, 2617076008, 2617076009

METHOD BLANK: 2544199 Matrix: Water
 Associated Lab Samples: 2617076001, 2617076002, 2617076003, 2617076004, 2617076005, 2617076006, 2617076007, 2617076008, 2617076009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	04/11/19 19:03	

LABORATORY CONTROL SAMPLE: 2544200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544201 2544202

Parameter	Units	2617069003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L				0.0019	0.0021				10	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617076

QC Batch: 468126 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 2617076001, 2617076002, 2617076003, 2617076004, 2617076005, 2617076006, 2617076007, 2617076008, 2617076009

METHOD BLANK: 2543175 Matrix: Water
Associated Lab Samples: 2617076001, 2617076002, 2617076003, 2617076004, 2617076005, 2617076006, 2617076007, 2617076008, 2617076009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.000060	04/11/19 00:58	
Barium	mg/L	ND	0.010	0.000060	04/11/19 00:58	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/19 00:56	
Boron	mg/L	ND	0.10	0.0026	04/11/19 00:58	
Cadmium	mg/L	ND	0.0010	0.000070	04/11/19 00:58	
Calcium	mg/L	ND	0.50	0.021	04/11/19 00:58	
Chromium	mg/L	ND	0.010	0.00042	04/11/19 00:58	
Cobalt	mg/L	ND	0.010	0.000050	04/11/19 00:58	
Lead	mg/L	ND	0.0050	0.000050	04/11/19 00:58	
Lithium	mg/L	ND	0.050	0.00042	04/11/19 00:58	
Molybdenum	mg/L	ND	0.010	0.00010	04/11/19 00:58	
Selenium	mg/L	ND	0.010	0.000080	04/11/19 00:58	
Thallium	mg/L	ND	0.0010	0.000060	04/11/19 00:58	

LABORATORY CONTROL SAMPLE: 2543176

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.01	0.0099	99	80-120	
Barium	mg/L	0.05	0.049	98	80-120	
Beryllium	mg/L	0.01	0.0095	95	80-120	
Boron	mg/L	0.05	0.047J	94	80-120	
Cadmium	mg/L	0.01	0.010	101	80-120	
Calcium	mg/L	0.62	0.63	101	80-120	
Chromium	mg/L	0.05	0.050	99	80-120	
Cobalt	mg/L	0.01	0.010J	100	80-120	
Lead	mg/L	0.05	0.050	100	80-120	
Lithium	mg/L	0.05	0.050J	100	80-120	
Molybdenum	mg/L	0.05	0.051	102	80-120	
Selenium	mg/L	0.05	0.050	99	80-120	
Thallium	mg/L	0.01	0.0099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2543177 2543178

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2617072001 Result	Spike Conc.	Spike Conc.	MS Result						
Arsenic	mg/L	0.00017J	0.01	0.01	0.010	0.010	102	99	75-125	3	20
Barium	mg/L	0.018	0.05	0.05	0.069	0.068	101	99	75-125	1	20

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

Parameter	Units	2543177		2543178		MS % Rec	MSD % Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Beryllium	mg/L	ND	0.01	0.01	0.0088	0.0084	87	84	75-125	4	20	
Boron	mg/L	2.3	0.05	0.05	2.4	2.4	205	248	75-125	1	20	M6
Cadmium	mg/L	0.0018	0.01	0.01	0.012	0.011	97	96	75-125	1	20	
Calcium	mg/L	214	0.62	0.62	218	216	575	271	75-125	1	20	M6
Chromium	mg/L	ND	0.05	0.05	0.050	0.049	99	98	75-125	1	20	
Cobalt	mg/L	0.035	0.01	0.01	0.044	0.044	97	94	75-125	1	20	
Lead	mg/L	0.000072J	0.05	0.05	0.052	0.051	103	102	75-125	1	20	
Lithium	mg/L	0.00090J	0.05	0.05	0.046J	0.045J	90	88	75-125	2	20	
Molybdenum	mg/L	ND	0.05	0.05	0.052	0.052	104	103	75-125	1	20	
Selenium	mg/L	0.00021J	0.05	0.05	0.050	0.049	99	97	75-125	2	20	
Thallium	mg/L	ND	0.01	0.01	0.010	0.010	104	102	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617076

QC Batch: 473123

Analysis Method: EPA 6020B

QC Batch Method: EPA 3010A

Analysis Description: 6020 MET

Associated Lab Samples: 2617076007

METHOD BLANK: 2566181

Matrix: Water

Associated Lab Samples: 2617076007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.20	0.021	05/03/19 12:02	

LABORATORY CONTROL SAMPLE: 2566182

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	0.62	0.64	103	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617076

QC Batch: 26131 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2617076001, 2617076002, 2617076003, 2617076004, 2617076005, 2617076006, 2617076007, 2617076008, 2617076009

LABORATORY CONTROL SAMPLE: 117963

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 117964

Parameter	Units	2617035001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	111	103	7	10	

SAMPLE DUPLICATE: 117965

Parameter	Units	2617076005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2180	2110	3	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617076

QC Batch: 26061 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2617076001, 2617076002, 2617076003, 2617076004, 2617076005, 2617076006, 2617076007, 2617076008, 2617076009

METHOD BLANK: 117670 Matrix: Water
Associated Lab Samples: 2617076001, 2617076002, 2617076003, 2617076004, 2617076005, 2617076006, 2617076007, 2617076008, 2617076009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.31	0.25	0.024	04/09/19 19:01	
Fluoride	mg/L	ND	0.30	0.029	04/09/19 19:01	
Sulfate	mg/L	ND	1.0	0.017	04/09/19 19:01	

LABORATORY CONTROL SAMPLE: 117671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	9.4	94	90-110	
Sulfate	mg/L	10	10.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117672 117673

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2617069001 Result	Spike Conc.	Spike Conc.	MS Result						
Chloride	mg/L	6.9	10	10	16.0	16.1	91	92	90-110	1	15
Fluoride	mg/L	0.042J	10	10	9.0	9.1	89	91	90-110	2	15 M1
Sulfate	mg/L	358	10	10	224	224	-1340	-1330	90-110	0	15 M1

MATRIX SPIKE SAMPLE: 117674

Parameter	Units	2617069002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	7.2	10	16.3	91	90-110	
Fluoride	mg/L	0.045J	10	9.3	92	90-110	
Sulfate	mg/L	369	10	226	-1430	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 Bowen Ash Pond
Pace Project No.: 2617076

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

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.
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 Bowen Ash Pond
Pace Project No.: 2617076

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617076001	BGWA-33	EPA 3010A	468126	EPA 6020B	468248
2617076002	BGWC-19	EPA 3010A	468126	EPA 6020B	468248
2617076003	BGWC-20	EPA 3010A	468126	EPA 6020B	468248
2617076004	BGWC-21	EPA 3010A	468126	EPA 6020B	468248
2617076005	BGWC-22	EPA 3010A	468126	EPA 6020B	468248
2617076006	BGWC-23	EPA 3010A	468126	EPA 6020B	468248
2617076007	BGWC-24	EPA 3010A	468126	EPA 6020B	468248
2617076007	BGWC-24	EPA 3010A	473123	EPA 6020B	473134
2617076008	FBL040319	EPA 3010A	468126	EPA 6020B	468248
2617076009	EQBL040319	EPA 3010A	468126	EPA 6020B	468248
2617076001	BGWA-33	EPA 7470A	468366	EPA 7470A	468612
2617076002	BGWC-19	EPA 7470A	468366	EPA 7470A	468612
2617076003	BGWC-20	EPA 7470A	468366	EPA 7470A	468612
2617076004	BGWC-21	EPA 7470A	468366	EPA 7470A	468612
2617076005	BGWC-22	EPA 7470A	468366	EPA 7470A	468612
2617076006	BGWC-23	EPA 7470A	468366	EPA 7470A	468612
2617076007	BGWC-24	EPA 7470A	468366	EPA 7470A	468612
2617076008	FBL040319	EPA 7470A	468366	EPA 7470A	468612
2617076009	EQBL040319	EPA 7470A	468366	EPA 7470A	468612
2617076001	BGWA-33	SM 2540C	26131		
2617076002	BGWC-19	SM 2540C	26131		
2617076003	BGWC-20	SM 2540C	26131		
2617076004	BGWC-21	SM 2540C	26131		
2617076005	BGWC-22	SM 2540C	26131		
2617076006	BGWC-23	SM 2540C	26131		
2617076007	BGWC-24	SM 2540C	26131		
2617076008	FBL040319	SM 2540C	26131		
2617076009	EQBL040319	SM 2540C	26131		
2617076001	BGWA-33	EPA 300.0	26061		
2617076002	BGWC-19	EPA 300.0	26061		
2617076003	BGWC-20	EPA 300.0	26061		
2617076004	BGWC-21	EPA 300.0	26061		
2617076005	BGWC-22	EPA 300.0	26061		
2617076006	BGWC-23	EPA 300.0	26061		
2617076007	BGWC-24	EPA 300.0	26061		
2617076008	FBL040319	EPA 300.0	26061		
2617076009	EQBL040319	EPA 300.0	26061		

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.

Page: **1** Of **1**

Section A

Required Client Information:

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

Report To: Jolu Abraham
 Copy To: Geosyntec
 Whitney Law
 Purchase Order #: SCS10348606
 Project Name: Plant Bowen Ash Pond
 Project #:

Section B

Invoice Information:

Attention:
 Company Name:
 Address:
 Pace Quote:
 Pace Project Manager:
 Pace Profile #: 315

Section C

Requested Analysis Filtered (Y/N)

Regulatory Agency:
 State / Location: GA

#	SAMPLE ID	MATRIX CODE (A-Z, 0-9, /,) Sample Ids must be unique	MATRIX	CODE	COLLECTED	DATE	TIME	SAMPLER NAME AND SIGNATURE	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	TEMP in C	Ice Received on	Custody Sealed	Cooler (Y/N)	Samples Intact (Y/N)	
																				MATRIX CODE (see vial codes to left)
1	B6WA-33	MT6	4/3/19	1028																
2	B6WC-19	MT6	4/3/19	1155																
3	B6WC-20	MT6	4/3/19	1030																
4	B6WC-21	MT6	4/3/19	1405																
5	B6WC-22	MT6	4/3/19	1118																
6	B6WC-23	MT6	4/3/19	0938																
7	B6WC-24	MT6	4/3/19	1636																
8	F8L040319	MT6	4/3/19	1246																
9	E8L040319	MT6	4/3/19	1250																
10																				
11																				
12																				

WO#: 2617076



ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	<i>[Signature]</i> Perduk	4-5-19	10:20	<i>[Signature]</i> Paves	4-5-19	10:00	
				<i>[Signature]</i> Ralman	4/5/19	1120:03	



Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

WO#: **2617076**

PH: **BM** Due Date: **04/12/19**
CLIENT: **GAPower-CCR**

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes 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 0.3

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments: _____

Date and Initials of person examining contents: 4/5/19 MK

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: _____

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

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 (ie out of hold, incorrect preservative, out of temp, incorrect containers)

April 29, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617077

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617077

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 Bowen Ash Pond

Pace Project No.: 2617077

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617077001	BGWA-33	Water	04/03/19 10:28	04/05/19 11:20
2617077002	BGWC-19	Water	04/03/19 11:55	04/05/19 11:20
2617077003	BGWC-20	Water	04/03/19 10:30	04/05/19 11:20
2617077004	BGWC-21	Water	04/03/19 14:05	04/05/19 11:20
2617077005	BGWC-22	Water	04/03/19 11:18	04/05/19 11:20
2617077006	BGWC-23	Water	04/03/19 09:38	04/05/19 11:20
2617077007	BGWC-24	Water	04/03/19 16:36	04/05/19 11:20
2617077008	FBL040319	Water	04/03/19 12:46	04/05/19 11:20
2617077009	EQBL040319	Water	04/03/19 12:50	04/05/19 11:20

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617077001	BGWA-33	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617077002	BGWC-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617077003	BGWC-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617077004	BGWC-21	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617077005	BGWC-22	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617077006	BGWC-23	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617077007	BGWC-24	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617077008	FBL040319	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617077009	EQBL040319	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Sample: BGWA-33 **Lab ID: 2617077001** Collected: 04/03/19 10:28 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.303 ± 0.314 (0.621) C:71% T:NA	pCi/L	04/17/19 07:55	13982-63-3	
Radium-228	EPA 9320	0.387 ± 0.439 (0.926) C:82% T:77%	pCi/L	04/18/19 12:27	15262-20-1	
Total Radium	Total Radium Calculation	0.690 ± 0.753 (1.55)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Sample: BGWC-19 **Lab ID: 2617077002** Collected: 04/03/19 11:55 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.668 ± 0.388 (0.627) C:91% T:NA	pCi/L	04/17/19 07:57	13982-63-3	
Radium-228	EPA 9320	0.312 ± 0.356 (0.747) C:81% T:80%	pCi/L	04/18/19 11:48	15262-20-1	
Total Radium	Total Radium Calculation	0.980 ± 0.744 (1.37)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Sample: BGWC-20 **Lab ID: 2617077003** Collected: 04/03/19 10:30 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.478 ± 0.297 (0.454) C:94% T:NA	pCi/L	04/17/19 07:55	13982-63-3	
Radium-228	EPA 9320	0.0890 ± 0.377 (0.848) C:82% T:89%	pCi/L	04/18/19 12:27	15262-20-1	
Total Radium	Total Radium Calculation	0.567 ± 0.674 (1.30)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Sample: BGWC-21 **Lab ID: 2617077004** Collected: 04/03/19 14:05 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.315 ± 0.232 (0.335) C:91% T:NA	pCi/L	04/17/19 08:07	13982-63-3	
Radium-228	EPA 9320	0.217 ± 0.307 (0.659) C:82% T:82%	pCi/L	04/18/19 14:52	15262-20-1	
Total Radium	Total Radium Calculation	0.532 ± 0.539 (0.994)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.01 ± 0.615 (0.618) C:96% T:NA	pCi/L	04/17/19 07:57	13982-63-3	
Radium-228	EPA 9320	0.465 ± 0.349 (0.677) C:80% T:78%	pCi/L	04/18/19 11:47	15262-20-1	
Total Radium	Total Radium Calculation	2.48 ± 0.964 (1.30)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Sample: BGWC-23 **Lab ID: 2617077006** Collected: 04/03/19 09:38 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.76 ± 0.601 (0.631) C:83% T:NA	pCi/L	04/17/19 07:54	13982-63-3	
Radium-228	EPA 9320	1.10 ± 0.457 (0.760) C:84% T:85%	pCi/L	04/18/19 12:27	15262-20-1	
Total Radium	Total Radium Calculation	2.86 ± 1.06 (1.39)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Sample: BGWC-24 **Lab ID: 2617077007** Collected: 04/03/19 16:36 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.38 ± 0.651 (0.375) C:98% T:NA	pCi/L	04/17/19 08:07	13982-63-3	
Radium-228	EPA 9320	1.22 ± 0.463 (0.705) C:77% T:90%	pCi/L	04/18/19 14:52	15262-20-1	
Total Radium	Total Radium Calculation	3.60 ± 1.11 (1.08)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Sample: FBL040319 **Lab ID: 2617077008** Collected: 04/03/19 12:46 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0891 ± 0.172 (0.395) C:96% T:NA	pCi/L	04/17/19 08:07	13982-63-3	
Radium-228	EPA 9320	-0.388 ± 0.247 (0.665) C:80% T:84%	pCi/L	04/18/19 11:48	15262-20-1	
Total Radium	Total Radium Calculation	0.0891 ± 0.419 (1.06)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

Sample: EQBL040319 **Lab ID: 2617077009** Collected: 04/03/19 12:50 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.344 ± 0.240 (0.347) C:95% T:NA	pCi/L	04/17/19 08:07	13982-63-3	
Radium-228	EPA 9320	0.451 ± 0.371 (0.731) C:76% T:71%	pCi/L	04/18/19 11:48	15262-20-1	
Total Radium	Total Radium Calculation	0.795 ± 0.611 (1.08)	pCi/L	04/22/19 11:21	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

QC Batch: 337919

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2617077002, 2617077004, 2617077005, 2617077007, 2617077008, 2617077009

METHOD BLANK: 1644532

Matrix: Water

Associated Lab Samples: 2617077002, 2617077004, 2617077005, 2617077007, 2617077008, 2617077009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.211 ± 0.257 (0.538) C:93% T:NA	pCi/L	04/17/19 07:57	

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 Bowen Ash Pond

Pace Project No.: 2617077

QC Batch: 337917

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2617077001, 2617077003, 2617077006

METHOD BLANK: 1644525

Matrix: Water

Associated Lab Samples: 2617077001, 2617077003, 2617077006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.221 ± 0.211 (0.378) C:90% T:NA	pCi/L	04/17/19 08:36	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

QC Batch: 337911

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2617077001, 2617077003, 2617077006

METHOD BLANK: 1644521

Matrix: Water

Associated Lab Samples: 2617077001, 2617077003, 2617077006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.526 ± 0.315 (0.569) C:87% T:76%	pCi/L	04/18/19 12:31	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

QC Batch: 337912

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2617077002, 2617077004, 2617077005, 2617077007, 2617077008, 2617077009

METHOD BLANK: 1644522

Matrix: Water

Associated Lab Samples: 2617077002, 2617077004, 2617077005, 2617077007, 2617077008, 2617077009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.129 ± 0.341 (0.763) C:81% T:73%	pCi/L	04/18/19 11:47	

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617077

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond
Pace Project No.: 2617077

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617077001	BGWA-33	EPA 9315	337917		
2617077002	BGWC-19	EPA 9315	337919		
2617077003	BGWC-20	EPA 9315	337917		
2617077004	BGWC-21	EPA 9315	337919		
2617077005	BGWC-22	EPA 9315	337919		
2617077006	BGWC-23	EPA 9315	337917		
2617077007	BGWC-24	EPA 9315	337919		
2617077008	FBL040319	EPA 9315	337919		
2617077009	EQBL040319	EPA 9315	337919		
2617077001	BGWA-33	EPA 9320	337911		
2617077002	BGWC-19	EPA 9320	337912		
2617077003	BGWC-20	EPA 9320	337911		
2617077004	BGWC-21	EPA 9320	337912		
2617077005	BGWC-22	EPA 9320	337912		
2617077006	BGWC-23	EPA 9320	337911		
2617077007	BGWC-24	EPA 9320	337912		
2617077008	FBL040319	EPA 9320	337912		
2617077009	EQBL040319	EPA 9320	337912		
2617077001	BGWA-33	Total Radium Calculation	339290		
2617077002	BGWC-19	Total Radium Calculation	339291		
2617077003	BGWC-20	Total Radium Calculation	339290		
2617077004	BGWC-21	Total Radium Calculation	339291		
2617077005	BGWC-22	Total Radium Calculation	339291		
2617077006	BGWC-23	Total Radium Calculation	339290		
2617077007	BGWC-24	Total Radium Calculation	339291		
2617077008	FBL040319	Total Radium Calculation	339291		
2617077009	EQBL040319	Total Radium Calculation	339291		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

WO#: **2617077**

PM: **BM**

Due Date: **05/03/19**

CLIENT: **GAPower-CCR**

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

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

Cooler Temperature 0.3 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: 4/5/19 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: _____

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

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)

May 03, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617079

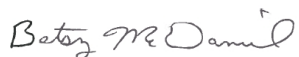
Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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 one issued on 4/15/2019. The report has been revised to correct metals units and target list per consultant request. No other changes have been made to this 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Atlanta Certification IDs

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

Asheville Certification IDs

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 Bowen Ash Pond

Pace Project No.: 2617079

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617079001	BGWC-14	Water	04/04/19 09:03	04/05/19 11:20
2617079002	BGWC-25	Water	04/04/19 10:28	04/05/19 11:20
2617079003	BGWC-31	Water	04/04/19 11:10	04/05/19 11:20
2617079004	BGWC-34D	Water	04/04/19 15:50	04/05/19 11:20
2617079005	BGWC-35D	Water	04/04/19 12:40	04/05/19 11:20
2617079006	Dup-3	Water	04/04/19 00:00	04/05/19 11:20
2617079007	FBL040419	Water	04/04/19 12:44	04/05/19 11:20
2617079008	EQBL040419	Water	04/04/19 12:58	04/05/19 11:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617079001	BGWC-14	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617079002	BGWC-25	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617079003	BGWC-31	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617079004	BGWC-34D	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617079005	BGWC-35D	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617079006	Dup-3	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617079007	FBL040419	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617079008	EQBL040419	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Sample: BGWC-14 **Lab ID: 2617079001** Collected: 04/04/19 09:03 Received: 04/05/19 11:20 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.00041J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 21:32	7440-38-2	B
Barium	0.049	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 21:32	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 21:32	7440-41-7	
Boron	0.79J	mg/L	1.0	0.026	10	04/09/19 20:29	04/11/19 17:17	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 21:32	7440-43-9	
Calcium	98.0	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 02:12	7440-70-2	
Chromium	0.00057J	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 21:32	7440-47-3	
Cobalt	0.00015J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 21:32	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 21:32	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 21:32	7439-93-2	
Molybdenum	0.0088J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 21:32	7439-98-7	
Selenium	0.00014J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 21:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 21:32	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 21:54	04/12/19 10:29	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	617	mg/L	25.0	10.0	1		04/11/19 19:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	33.7	mg/L	0.25	0.024	1		04/09/19 22:05	16887-00-6	M1
Fluoride	0.44	mg/L	0.30	0.029	1		04/09/19 22:05	16984-48-8	
Sulfate	255	mg/L	10.0	0.17	10		04/09/19 22:27	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Sample: BGWC-25		Lab ID: 2617079002		Collected: 04/04/19 10:28		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.0016J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 17:20	7440-38-2		
Barium	0.016	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 17:20	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 17:20	7440-41-7		
Boron	0.020J	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 17:20	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 17:20	7440-43-9		
Calcium	54.8	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 02:15	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 17:20	7440-47-3		
Cobalt	0.00022J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 17:20	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 17:20	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 17:20	7439-93-2		
Molybdenum	0.00096J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 17:20	7439-98-7		
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 17:20	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 17:20	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 21:54	04/12/19 10:41	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	196	mg/L	25.0	10.0	1		04/11/19 19:35			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	3.8	mg/L	0.25	0.024	1		04/09/19 23:31	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 23:31	16984-48-8		
Sulfate	11.4	mg/L	1.0	0.017	1		04/09/19 23:31	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Sample: BGWC-31		Lab ID: 2617079003		Collected: 04/04/19 11:10	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.0036J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 21:39	7440-38-2	
Barium	0.032	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 21:39	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 21:39	7440-41-7	
Boron	0.59J	mg/L	1.0	0.026	10	04/09/19 20:29	04/11/19 17:27	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 21:39	7440-43-9	
Calcium	69.3	mg/L	5.0	0.21	10	04/09/19 20:29	04/11/19 17:27	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 21:39	7440-47-3	
Cobalt	0.00051J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 21:39	7440-48-4	
Lead	0.00065J	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 21:39	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 21:39	7439-93-2	
Molybdenum	0.00033J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 21:39	7439-98-7	
Selenium	0.000080J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 21:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 21:39	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 21:54	04/12/19 10:43	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	350	mg/L	25.0	10.0	1		04/11/19 19:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	32.7	mg/L	0.25	0.024	1		04/09/19 23:52	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 23:52	16984-48-8	
Sulfate	105	mg/L	10.0	0.17	10		04/10/19 00:13	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Sample: BGWC-34D		Lab ID: 2617079004		Collected: 04/04/19 15:50	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.015	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 17:38	7440-38-2	
Barium	0.031	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 17:38	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 17:38	7440-41-7	
Boron	0.15	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 17:38	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 17:38	7440-43-9	
Calcium	104	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 02:19	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 17:38	7440-47-3	
Cobalt	0.00042J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 17:38	7440-48-4	
Lead	0.000054J	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 17:38	7439-92-1	
Lithium	0.00068J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 17:38	7439-93-2	
Molybdenum	0.0011J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 17:38	7439-98-7	
Selenium	0.00010J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 17:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 17:38	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 21:54	04/12/19 10:46	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	419	mg/L	25.0	10.0	1		04/11/19 19:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	28.4	mg/L	0.25	0.024	1		04/10/19 00:35	16887-00-6	
Fluoride	0.035J	mg/L	0.30	0.029	1		04/10/19 00:35	16984-48-8	
Sulfate	88.0	mg/L	5.0	0.085	5		04/10/19 00:56	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Sample: BGWC-35D		Lab ID: 2617079005		Collected: 04/04/19 12:40	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.0018J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 22:14	7440-38-2	
Barium	0.071	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 22:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 22:14	7440-41-7	
Boron	8.3	mg/L	5.0	0.13	50	04/09/19 20:29	04/11/19 17:45	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 22:14	7440-43-9	
Calcium	442	mg/L	25.0	1.0	50	04/09/19 20:29	04/11/19 17:45	7440-70-2	
Chromium	0.0011J	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 22:14	7440-47-3	
Cobalt	0.0011J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 22:14	7440-48-4	
Lead	0.00023J	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 22:14	7439-92-1	
Lithium	0.0096J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 22:14	7439-93-2	
Molybdenum	0.030	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 22:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 22:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 22:14	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 21:54	04/12/19 10:48	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1930	mg/L	25.0	10.0	1		04/11/19 19:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	605	mg/L	12.5	1.2	50		04/10/19 03:04	16887-00-6	
Fluoride	0.26J	mg/L	0.30	0.029	1		04/10/19 01:17	16984-48-8	
Sulfate	643	mg/L	50.0	0.85	50		04/10/19 03:04	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Sample: Dup-3		Lab ID: 2617079006		Collected: 04/04/19 00:00		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.0016J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 22:18	7440-38-2		
Barium	0.015	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 22:18	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 22:18	7440-41-7		
Boron	0.076J	mg/L	0.50	0.013	5	04/09/19 20:29	04/11/19 17:48	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 22:18	7440-43-9		
Calcium	48.4	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 02:22	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 22:18	7440-47-3		
Cobalt	0.00020J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 22:18	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 22:18	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 22:18	7439-93-2		
Molybdenum	0.00096J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 22:18	7439-98-7		
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 22:18	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 22:18	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 21:54	04/12/19 10:50	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	207	mg/L	25.0	10.0	1		04/11/19 20:52			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.0	mg/L	0.25	0.024	1		04/10/19 03:25	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 03:25	16984-48-8		
Sulfate	11.3	mg/L	1.0	0.017	1		04/10/19 03:25	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Sample: FBL040419		Lab ID: 2617079007		Collected: 04/04/19 12:44	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	ND	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 17:52	7440-38-2	
Barium	0.000071J	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 17:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 17:52	7440-41-7	
Boron	0.0043J	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 17:52	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 17:52	7440-43-9	
Calcium	ND	mg/L	0.50	0.021	1	04/09/19 20:29	04/11/19 17:52	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 17:52	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 17:52	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 17:52	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 17:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 17:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 17:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 17:52	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 21:54	04/12/19 10:53	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	15.0J	mg/L	25.0	10.0	1		04/11/19 20:53		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.073J	mg/L	0.25	0.024	1		04/10/19 04:08	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 04:08	16984-48-8	
Sulfate	0.028J	mg/L	1.0	0.017	1		04/10/19 04:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Sample: EQBL040419 **Lab ID: 2617079008** Collected: 04/04/19 12:58 Received: 04/05/19 11:20 Matrix: Water

Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	ND	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 17:56	7440-38-2	
Barium	ND	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 17:56	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 17:56	7440-41-7	
Boron	ND	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 17:56	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 17:56	7440-43-9	
Calcium	ND	mg/L	0.50	0.021	1	04/09/19 20:29	04/11/19 17:56	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 17:56	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 17:56	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 17:56	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 17:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 17:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 17:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 17:56	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 21:54	04/12/19 10:55	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/11/19 20:53		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.077J	mg/L	0.25	0.024	1		04/10/19 04:29	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 04:29	16984-48-8	
Sulfate	0.028J	mg/L	1.0	0.017	1		04/10/19 04:29	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617079

QC Batch: 468642 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2617079001, 2617079002, 2617079003, 2617079004, 2617079005, 2617079006, 2617079007, 2617079008

METHOD BLANK: 2545437 Matrix: Water
Associated Lab Samples: 2617079001, 2617079002, 2617079003, 2617079004, 2617079005, 2617079006, 2617079007, 2617079008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	04/12/19 10:24	

LABORATORY CONTROL SAMPLE: 2545438

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2545439 2545440

Parameter	Units	2617079001 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	0.0023	0.0023	93	93	75-125	0	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617079

QC Batch: 468329 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 2617079001, 2617079002, 2617079003, 2617079004, 2617079005, 2617079006, 2617079007, 2617079008

METHOD BLANK: 2544088 Matrix: Water
Associated Lab Samples: 2617079001, 2617079002, 2617079003, 2617079004, 2617079005, 2617079006, 2617079007, 2617079008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	0.000062J	0.0050	0.000060	04/10/19 19:29	
Barium	mg/L	ND	0.010	0.000060	04/10/19 19:29	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/19 19:29	
Boron	mg/L	ND	0.10	0.0026	04/10/19 19:29	
Cadmium	mg/L	ND	0.0010	0.000070	04/10/19 19:29	
Calcium	mg/L	ND	0.50	0.021	04/10/19 19:29	
Chromium	mg/L	ND	0.010	0.00042	04/10/19 19:29	
Cobalt	mg/L	ND	0.010	0.000050	04/10/19 19:29	
Lead	mg/L	ND	0.0050	0.000050	04/10/19 19:29	BC
Lithium	mg/L	ND	0.050	0.00042	04/10/19 19:29	
Molybdenum	mg/L	ND	0.010	0.00010	04/10/19 19:29	
Selenium	mg/L	ND	0.010	0.000080	04/10/19 19:29	
Thallium	mg/L	ND	0.0010	0.000060	04/10/19 19:29	

LABORATORY CONTROL SAMPLE: 2544089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.01	0.010	103	80-120	
Barium	mg/L	0.05	0.050	99	80-120	
Beryllium	mg/L	0.01	0.0095	95	80-120	
Boron	mg/L	0.05	0.049J	98	80-120	
Cadmium	mg/L	0.01	0.010	102	80-120	
Calcium	mg/L	0.62	0.64	102	80-120	
Chromium	mg/L	0.05	0.050	101	80-120	
Cobalt	mg/L	0.01	0.010	101	80-120	
Lead	mg/L	0.05	0.051	101	80-120	BC
Lithium	mg/L	0.05	0.052	104	80-120	
Molybdenum	mg/L	0.05	0.052	103	80-120	
Selenium	mg/L	0.05	0.051	102	80-120	
Thallium	mg/L	0.01	0.010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544090 2544091

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2617082009 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Arsenic	mg/L	0.00012J	0.01	0.01	0.0092	0.0091	91	90	75-125	1	20	
Barium	mg/L	0.025	0.05	0.05	0.068	0.067	87	85	75-125	2	20	
Beryllium	mg/L	ND	0.01	0.01	0.0081	0.0080	80	79	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

Parameter	Units	2544090		2544091		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Boron	mg/L	0.49J	0.05	0.05	0.56	0.58	137	180	75-125	4	20	M1	
Cadmium	mg/L	ND	0.01	0.01	0.0091	0.0091	91	90	75-125	0	20		
Calcium	mg/L	55.8	0.62	0.62	54.5	53.7	-203	-330	75-125	1	20	M6	
Chromium	mg/L	ND	0.05	0.05	0.045	0.044	89	88	75-125	1	20		
Cobalt	mg/L	0.00010J	0.01	0.01	0.0089J	0.0088J	88	87	75-125	1	20		
Lead	mg/L	ND	0.05	0.05	0.044	0.045	88	90	75-125	2	20		
Lithium	mg/L	ND	0.05	0.05	0.044J	0.044J	89	87	75-125	2	20		
Molybdenum	mg/L	ND	0.05	0.05	0.046	0.046	92	93	75-125	1	20		
Selenium	mg/L	0.00091J	0.05	0.05	0.046	0.045	90	88	75-125	2	20		
Thallium	mg/L	ND	0.01	0.01	0.0088	0.0090	88	90	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

QC Batch: 26251 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2617079001, 2617079002, 2617079003, 2617079004, 2617079005

LABORATORY CONTROL SAMPLE: 118507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	404	101	84-108	

SAMPLE DUPLICATE: 118508

Parameter	Units	2617035009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	85.0	50.0	52	10	D6

SAMPLE DUPLICATE: 118509

Parameter	Units	2617069003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	340	341	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617079

QC Batch: 26063 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2617079001, 2617079002, 2617079003, 2617079004, 2617079005, 2617079006, 2617079007, 2617079008

METHOD BLANK: 117675 Matrix: Water
Associated Lab Samples: 2617079001, 2617079002, 2617079003, 2617079004, 2617079005, 2617079006, 2617079007, 2617079008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.053J	0.25	0.024	04/09/19 21:23	
Fluoride	mg/L	ND	0.30	0.029	04/09/19 21:23	
Sulfate	mg/L	ND	1.0	0.017	04/09/19 21:23	

LABORATORY CONTROL SAMPLE: 117676

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117677 117678

Parameter	Units	2617079001		2617079002		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Chloride	mg/L	33.7	10	10	40.3	40.3	65	65	90-110	0	15	M1	
Fluoride	mg/L	0.44	10	10	10.2	10.1	97	97	90-110	0	15		
Sulfate	mg/L	255	10	10	178	178	-769	-769	90-110	0	15	E, M1	

MATRIX SPIKE SAMPLE: 117679

Parameter	Units	2617079002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	3.8	10	13.4	96	90-110	
Fluoride	mg/L	ND	10	9.9	99	90-110	
Sulfate	mg/L	11.4	10	20.5	91	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617079

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

B Analyte was detected in the associated method blank.

BC The same analyte was detected in an associated blank at a concentration above 1/2 the reporting limit but below the laboratory reporting limit.

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

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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

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 Bowen Ash Pond
Pace Project No.: 2617079

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617079001	BGWC-14	EPA 3010A	468329	EPA 6020B	468391
2617079002	BGWC-25	EPA 3010A	468329	EPA 6020B	468391
2617079003	BGWC-31	EPA 3010A	468329	EPA 6020B	468391
2617079004	BGWC-34D	EPA 3010A	468329	EPA 6020B	468391
2617079005	BGWC-35D	EPA 3010A	468329	EPA 6020B	468391
2617079006	Dup-3	EPA 3010A	468329	EPA 6020B	468391
2617079007	FBL040419	EPA 3010A	468329	EPA 6020B	468391
2617079008	EQBL040419	EPA 3010A	468329	EPA 6020B	468391
2617079001	BGWC-14	EPA 7470A	468642	EPA 7470A	468914
2617079002	BGWC-25	EPA 7470A	468642	EPA 7470A	468914
2617079003	BGWC-31	EPA 7470A	468642	EPA 7470A	468914
2617079004	BGWC-34D	EPA 7470A	468642	EPA 7470A	468914
2617079005	BGWC-35D	EPA 7470A	468642	EPA 7470A	468914
2617079006	Dup-3	EPA 7470A	468642	EPA 7470A	468914
2617079007	FBL040419	EPA 7470A	468642	EPA 7470A	468914
2617079008	EQBL040419	EPA 7470A	468642	EPA 7470A	468914
2617079001	BGWC-14	SM 2540C	26251		
2617079002	BGWC-25	SM 2540C	26251		
2617079003	BGWC-31	SM 2540C	26251		
2617079004	BGWC-34D	SM 2540C	26251		
2617079005	BGWC-35D	SM 2540C	26251		
2617079006	Dup-3	SM 2540C	26252		
2617079007	FBL040419	SM 2540C	26252		
2617079008	EQBL040419	SM 2540C	26252		
2617079001	BGWC-14	EPA 300.0	26063		
2617079002	BGWC-25	EPA 300.0	26063		
2617079003	BGWC-31	EPA 300.0	26063		
2617079004	BGWC-34D	EPA 300.0	26063		
2617079005	BGWC-35D	EPA 300.0	26063		
2617079006	Dup-3	EPA 300.0	26063		
2617079007	FBL040419	EPA 300.0	26063		
2617079008	EQBL040419	EPA 300.0	26063		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

WO#: 2617079

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

PM: **BM** Due Date: **04/12/19**
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 0.3 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Date and initials of person examining contents: 4/5/19 MK

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: _____

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

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)

April 29, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617080

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617080

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 Bowen Ash Pond

Pace Project No.: 2617080

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617080001	BGWC-14	Water	04/04/19 09:03	04/05/19 11:20
2617080002	BGWC-25	Water	04/04/19 10:28	04/05/19 11:20
2617080003	BGWC-31	Water	04/04/19 11:10	04/05/19 11:20
2617080004	BGWC-34D	Water	04/04/19 15:50	04/05/19 11:20
2617080005	BGWC-35D	Water	04/04/19 12:40	04/05/19 11:20
2617080006	Dup-3	Water	04/04/19 00:00	04/05/19 11:20
2617080007	FBL040419	Water	04/04/19 12:44	04/05/19 11:20
2617080008	EQBL040419	Water	04/04/19 12:58	04/05/19 11:20

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617080001	BGWC-14	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617080002	BGWC-25	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617080003	BGWC-31	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617080004	BGWC-34D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617080005	BGWC-35D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617080006	Dup-3	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617080007	FBL040419	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617080008	EQBL040419	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Sample: BGWC-14 **Lab ID: 2617080001** Collected: 04/04/19 09:03 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	5.46 ± 1.20 (0.677) C:90% T:NA	pCi/L	04/17/19 07:50	13982-63-3	
Radium-228	EPA 9320	3.02 ± 0.751 (0.693) C:85% T:78%	pCi/L	04/18/19 12:30	15262-20-1	
Total Radium	Total Radium Calculation	8.48 ± 1.95 (1.37)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Sample: BGWC-25 **Lab ID: 2617080002** Collected: 04/04/19 10:28 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.186 ± 0.242 (0.504) C:86% T:NA	pCi/L	04/17/19 07:51	13982-63-3	
Radium-228	EPA 9320	0.160 ± 0.372 (0.824) C:84% T:79%	pCi/L	04/18/19 12:30	15262-20-1	
Total Radium	Total Radium Calculation	0.346 ± 0.614 (1.33)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Sample: BGWC-31 **Lab ID: 2617080003** Collected: 04/04/19 11:10 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.808 ± 0.423 (0.604) C:80% T:NA	pCi/L	04/17/19 07:51	13982-63-3	
Radium-228	EPA 9320	0.678 ± 0.386 (0.705) C:82% T:80%	pCi/L	04/18/19 12:30	15262-20-1	
Total Radium	Total Radium Calculation	1.49 ± 0.809 (1.31)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Sample: BGWC-34D **Lab ID: 2617080004** Collected: 04/04/19 15:50 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.000 ± 0.448 (0.555) C:80% T:NA	pCi/L	04/17/19 07:54	13982-63-3	
Radium-228	EPA 9320	0.891 ± 0.558 (1.07) C:82% T:62%	pCi/L	04/18/19 12:27	15262-20-1	
Total Radium	Total Radium Calculation	1.89 ± 1.01 (1.63)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BGWC-35D Lab ID: 2617080005 Collected: 04/04/19 12:40 Received: 04/05/19 11:20 Matrix: Water PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	1.08 ± 0.459 (0.597) C:97% T:NA	pCi/L	04/17/19 07:51	13982-63-3	
Radium-228	EPA 9320	1.29 ± 0.448 (0.635) C:86% T:82%	pCi/L	04/18/19 12:30	15262-20-1	
Total Radium	Total Radium Calculation	2.37 ± 0.907 (1.23)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Sample: Dup-3 **Lab ID: 2617080006** Collected: 04/04/19 00:00 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.330 ± 0.253 (0.397) C:89% T:NA	pCi/L	04/17/19 07:50	13982-63-3	
Radium-228	EPA 9320	0.224 ± 0.313 (0.672) C:85% T:80%	pCi/L	04/18/19 12:30	15262-20-1	
Total Radium	Total Radium Calculation	0.554 ± 0.566 (1.07)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Sample: FBL040419 **Lab ID: 2617080007** Collected: 04/04/19 12:44 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.121 ± 0.220 (0.501) C:90% T:NA	pCi/L	04/17/19 07:51	13982-63-3	
Radium-228	EPA 9320	0.679 ± 0.367 (0.653) C:82% T:79%	pCi/L	04/18/19 12:30	15262-20-1	
Total Radium	Total Radium Calculation	0.800 ± 0.587 (1.15)	pCi/L	04/22/19 11:17	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

Sample: EQBL040419 **Lab ID: 2617080008** Collected: 04/04/19 12:58 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0490 ± 0.173 (0.440) C:89% T:NA	pCi/L	04/17/19 07:52	13982-63-3	
Radium-228	EPA 9320	0.446 ± 0.427 (0.887) C:83% T:82%	pCi/L	04/18/19 12:27	15262-20-1	
Total Radium	Total Radium Calculation	0.495 ± 0.600 (1.33)	pCi/L	04/22/19 11:17	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617080

QC Batch: 337911

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2617080001, 2617080002, 2617080003, 2617080004, 2617080005, 2617080006, 2617080007, 2617080008

METHOD BLANK: 1644521

Matrix: Water

Associated Lab Samples: 2617080001, 2617080002, 2617080003, 2617080004, 2617080005, 2617080006, 2617080007, 2617080008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.526 ± 0.315 (0.569) C:87% T:76%	pCi/L	04/18/19 12:31	

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 Bowen Ash Pond

Pace Project No.: 2617080

QC Batch: 337917

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2617080001, 2617080002, 2617080003, 2617080004, 2617080005, 2617080006, 2617080007, 2617080008

METHOD BLANK: 1644525

Matrix: Water

Associated Lab Samples: 2617080001, 2617080002, 2617080003, 2617080004, 2617080005, 2617080006, 2617080007, 2617080008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.221 ± 0.211 (0.378) C:90% T:NA	pCi/L	04/17/19 08:36	

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 Bowen Ash Pond
Pace Project No.: 2617080

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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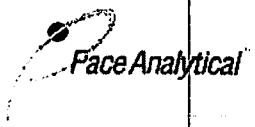
QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond
Pace Project No.: 2617080

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617080001	BGWC-14	EPA 9315	337917		
2617080002	BGWC-25	EPA 9315	337917		
2617080003	BGWC-31	EPA 9315	337917		
2617080004	BGWC-34D	EPA 9315	337917		
2617080005	BGWC-35D	EPA 9315	337917		
2617080006	Dup-3	EPA 9315	337917		
2617080007	FBL040419	EPA 9315	337917		
2617080008	EQBL040419	EPA 9315	337917		
2617080001	BGWC-14	EPA 9320	337911		
2617080002	BGWC-25	EPA 9320	337911		
2617080003	BGWC-31	EPA 9320	337911		
2617080004	BGWC-34D	EPA 9320	337911		
2617080005	BGWC-35D	EPA 9320	337911		
2617080006	Dup-3	EPA 9320	337911		
2617080007	FBL040419	EPA 9320	337911		
2617080008	EQBL040419	EPA 9320	337911		
2617080001	BGWC-14	Total Radium Calculation	339290		
2617080002	BGWC-25	Total Radium Calculation	339290		
2617080003	BGWC-31	Total Radium Calculation	339290		
2617080004	BGWC-34D	Total Radium Calculation	339290		
2617080005	BGWC-35D	Total Radium Calculation	339290		
2617080006	Dup-3	Total Radium Calculation	339290		
2617080007	FBL040419	Total Radium Calculation	339290		
2617080008	EQBL040419	Total Radium Calculation	339290		

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Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

WO#: **2617080**

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

PM: **BM** Due Date: **05/03/19**
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

Cooler Temperature 0.3 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: 4/5/19 MK

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: _____

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

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)

May 24, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617082

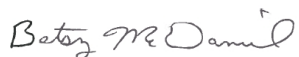
Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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 one issued on 4/18/2019. The report has been revised to correct mercury units per consultant request. No other changes have been made to this 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Atlanta Certification IDs

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

Asheville Certification IDs

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

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617082001	BGWC-10	Water	04/02/19 16:15	04/05/19 11:20
2617082002	BGWC-30	Water	04/02/19 10:24	04/05/19 11:20
2617082003	BGWC-36D	Water	04/02/19 12:10	04/05/19 11:20
2617082004	BGWC-17	Water	04/02/19 14:43	04/05/19 11:20
2617082005	BGWC-18	Water	04/02/19 16:28	04/05/19 11:20
2617082006	BGWC-7	Water	04/02/19 09:58	04/05/19 11:20
2617082007	BGWA-6	Water	04/02/19 11:33	04/05/19 11:20
2617082008	BGWC-16	Water	04/02/19 13:22	04/05/19 11:20
2617082009	Dup-2	Water	04/02/19 00:00	04/05/19 11:20
2617082010	FBL040219	Water	04/02/19 16:14	04/05/19 11:20
2617082011	EQBL040219	Water	04/02/19 16:20	04/05/19 11:20

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617082001	BGWC-10	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082002	BGWC-30	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082003	BGWC-36D	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082004	BGWC-17	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082005	BGWC-18	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082006	BGWC-7	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082007	BGWA-6	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082008	BGWC-16	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082009	Dup-2	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617082010	FBL040219	EPA 6020B	SER	13	PASI-A

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617082011	EQBL040219	EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: BGWC-10		Lab ID: 2617082001		Collected: 04/02/19 16:15	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.0057	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 17:31	7440-38-2	
Barium	0.045	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 17:31	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 17:31	7440-41-7	
Boron	0.51J	mg/L	1.0	0.026	10	04/09/19 20:29	04/11/19 18:03	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 17:31	7440-43-9	
Calcium	57.8	mg/L	5.0	0.21	10	04/09/19 20:29	04/11/19 18:03	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 17:31	7440-47-3	
Cobalt	0.00027J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 17:31	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 17:31	7439-92-1	
Lithium	0.0012J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 17:31	7439-93-2	
Molybdenum	0.0032J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 17:31	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 17:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 17:31	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:44	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	355	mg/L	25.0	10.0	1		04/09/19 18:50		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	24.1	mg/L	0.25	0.024	1		04/10/19 04:51	16887-00-6	
Fluoride	0.044J	mg/L	0.30	0.029	1		04/10/19 04:51	16984-48-8	
Sulfate	105	mg/L	10.0	0.17	10		04/10/19 10:34	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: BGWC-30		Lab ID: 2617082002		Collected: 04/02/19 10:24		Received: 04/05/19 11:20		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.00024J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 17:35	7440-38-2	
Barium	0.075	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 17:35	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 17:35	7440-41-7	
Boron	6.1J	mg/L	10.0	0.26	100	04/09/19 20:29	04/11/19 18:06	7440-42-8	
Cadmium	0.000079J	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 17:35	7440-43-9	
Calcium	181	mg/L	50.0	2.1	100	04/09/19 20:29	04/11/19 18:06	7440-70-2	
Chromium	0.00095J	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 17:35	7440-47-3	
Cobalt	0.00022J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 17:35	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 17:35	7439-92-1	
Lithium	0.0041J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 17:35	7439-93-2	
Molybdenum	0.010	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 17:35	7439-98-7	
Selenium	0.0092J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 17:35	7782-49-2	
Thallium	0.00024J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 17:35	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:51	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	773	mg/L	25.0	10.0	1		04/09/19 18:50		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	333	mg/L	5.0	0.48	20		04/10/19 10:56	16887-00-6	
Fluoride	0.68	mg/L	0.30	0.029	1		04/10/19 05:12	16984-48-8	
Sulfate	153	mg/L	20.0	0.34	20		04/10/19 10:56	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617082

Sample: BGWC-36D		Lab ID: 2617082003		Collected: 04/02/19 12:10		Received: 04/05/19 11:20		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.00039J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 17:38	7440-38-2	
Barium	0.074	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 17:38	7440-39-3	
Beryllium	0.000070J	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 17:38	7440-41-7	
Boron	6.7J	mg/L	10.0	0.26	100	04/09/19 20:29	04/11/19 18:10	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 17:38	7440-43-9	
Calcium	200	mg/L	50.0	2.1	100	04/09/19 20:29	04/11/19 18:10	7440-70-2	
Chromium	0.0010J	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 17:38	7440-47-3	
Cobalt	0.0011J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 17:38	7440-48-4	
Lead	0.00067J	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 17:38	7439-92-1	
Lithium	0.0021J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 17:38	7439-93-2	
Molybdenum	0.011	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 17:38	7439-98-7	
Selenium	0.014	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 17:38	7782-49-2	
Thallium	0.00022J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 17:38	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:53	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	976	mg/L	25.0	10.0	1		04/09/19 18:50		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	378	mg/L	2.5	0.24	10		04/10/19 11:18	16887-00-6	
Fluoride	0.44	mg/L	0.30	0.029	1		04/10/19 05:55	16984-48-8	
Sulfate	192	mg/L	10.0	0.17	10		04/10/19 11:18	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: BGWC-17		Lab ID: 2617082004		Collected: 04/02/19 14:43	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.00024J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 17:42	7440-38-2	
Barium	0.015	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 17:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 17:42	7440-41-7	
Boron	0.95J	mg/L	1.0	0.026	10	04/09/19 20:29	04/11/19 18:44	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 17:42	7440-43-9	
Calcium	63.9	mg/L	5.0	0.21	10	04/09/19 20:29	04/11/19 18:44	7440-70-2	
Chromium	0.00044J	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 17:42	7440-47-3	
Cobalt	0.00015J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 17:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 17:42	7439-92-1	
Lithium	0.00069J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 17:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 17:42	7439-98-7	
Selenium	0.00077J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 17:42	7782-49-2	
Thallium	0.000075J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 17:42	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.00040	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:55	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	321	mg/L	25.0	10.0	1		04/09/19 18:51		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	18.7	mg/L	0.25	0.024	1		04/10/19 06:16	16887-00-6	
Fluoride	0.14J	mg/L	0.30	0.029	1		04/10/19 06:16	16984-48-8	
Sulfate	86.9	mg/L	10.0	0.17	10		04/10/19 13:08	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: BGWC-18		Lab ID: 2617082005		Collected: 04/02/19 16:28		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00015J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 20:24	7440-38-2		
Barium	0.028	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 20:24	7440-39-3		
Beryllium	0.000052J	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 20:24	7440-41-7		
Boron	0.56J	mg/L	1.0	0.026	10	04/09/19 20:29	04/11/19 18:47	7440-42-8		
Cadmium	0.000073J	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 20:24	7440-43-9		
Calcium	53.3	mg/L	5.0	0.21	10	04/09/19 20:29	04/11/19 18:47	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 20:24	7440-47-3		
Cobalt	0.00012J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 20:24	7440-48-4		
Lead	0.000081J	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 20:24	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 20:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 20:24	7439-98-7		
Selenium	0.0010J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 20:24	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 20:24	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 19:58	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	258	mg/L	25.0	10.0	1		04/09/19 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.5	mg/L	0.25	0.024	1		04/10/19 08:02	16887-00-6		
Fluoride	0.044J	mg/L	0.30	0.029	1		04/10/19 08:02	16984-48-8		
Sulfate	70.1	mg/L	10.0	0.17	10		04/10/19 13:29	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617082

Sample: BGWC-7		Lab ID: 2617082006		Collected: 04/02/19 09:58		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.0016J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 20:28	7440-38-2		
Barium	0.031	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 20:28	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 20:28	7440-41-7		
Boron	1.4	mg/L	1.0	0.026	10	04/09/19 20:29	04/11/19 18:51	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 20:28	7440-43-9		
Calcium	140	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 01:36	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 20:28	7440-47-3		
Cobalt	0.00094J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 20:28	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 20:28	7439-92-1		
Lithium	0.0073J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 20:28	7439-93-2		
Molybdenum	0.011	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 20:28	7439-98-7		
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 20:28	7782-49-2		
Thallium	0.000070J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 20:28	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 20:00	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	728	mg/L	25.0	10.0	1		04/09/19 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	9.4	mg/L	0.25	0.024	1		04/10/19 08:24	16887-00-6		
Fluoride	0.22J	mg/L	0.30	0.029	1		04/10/19 08:24	16984-48-8		
Sulfate	334	mg/L	20.0	0.34	20		04/10/19 13:51	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: BGWA-6		Lab ID: 2617082007		Collected: 04/02/19 11:33		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00032J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 20:31	7440-38-2		
Barium	0.011	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 20:31	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 20:31	7440-41-7		
Boron	0.037J	mg/L	0.20	0.0051	2	04/09/19 20:29	04/11/19 18:54	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 20:31	7440-43-9		
Calcium	64.1	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 01:40	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 20:31	7440-47-3		
Cobalt	0.00016J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 20:31	7440-48-4		
Lead	0.000070J	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 20:31	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 20:31	7439-93-2		
Molybdenum	0.00026J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 20:31	7439-98-7		
Selenium	0.00031J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 20:31	7782-49-2		
Thallium	0.000062J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 20:31	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 20:03	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	295	mg/L	25.0	10.0	1		04/09/19 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	9.0	mg/L	0.25	0.024	1		04/10/19 08:45	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 08:45	16984-48-8		
Sulfate	29.8	mg/L	1.0	0.017	1		04/10/19 08:45	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: BGWC-16		Lab ID: 2617082008		Collected: 04/02/19 13:22		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00030J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 20:35	7440-38-2		
Barium	0.025	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 20:35	7440-39-3		
Beryllium	0.000063J	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 20:35	7440-41-7		
Boron	1.1	mg/L	1.0	0.026	10	04/09/19 20:29	04/11/19 18:58	7440-42-8		
Cadmium	0.0014	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 20:35	7440-43-9		
Calcium	117	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 01:43	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 20:35	7440-47-3		
Cobalt	0.0056J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 20:35	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 20:35	7439-92-1		
Lithium	0.00049J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 20:35	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 20:35	7439-98-7		
Selenium	0.00060J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 20:35	7782-49-2		
Thallium	0.00020J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 20:35	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 20:05	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	604	mg/L	25.0	10.0	1		04/09/19 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	20.3	mg/L	0.25	0.024	1		04/10/19 09:07	16887-00-6		
Fluoride	0.23J	mg/L	0.30	0.029	1		04/10/19 09:07	16984-48-8		
Sulfate	272	mg/L	20.0	0.34	20		04/10/19 14:13	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: Dup-2		Lab ID: 2617082009		Collected: 04/02/19 00:00		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00012J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 20:39	7440-38-2	B	
Barium	0.025	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 20:39	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 20:39	7440-41-7		
Boron	0.49J	mg/L	0.50	0.013	5	04/09/19 20:29	04/11/19 14:51	7440-42-8	M1	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 20:39	7440-43-9		
Calcium	55.8	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 01:47	7440-70-2	M6	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 20:39	7440-47-3		
Cobalt	0.00010J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 20:39	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 20:39	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 20:39	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 20:39	7439-98-7		
Selenium	0.00091J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 20:39	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 20:39	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 20:07	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	262	mg/L	25.0	10.0	1		04/09/19 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.5	mg/L	0.25	0.024	1		04/10/19 09:29	16887-00-6		
Fluoride	0.047J	mg/L	0.30	0.029	1		04/10/19 09:29	16984-48-8		
Sulfate	72.0	mg/L	20.0	0.34	20		04/10/19 14:35	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: FBL040219		Lab ID: 2617082010		Collected: 04/02/19 16:14	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	ND	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 16:27	7440-38-2	
Barium	0.00011J	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 16:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 16:27	7440-41-7	
Boron	0.0094J	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 16:27	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 16:27	7440-43-9	
Calcium	ND	mg/L	0.50	0.021	1	04/09/19 20:29	04/11/19 16:27	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 16:27	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 16:27	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 16:27	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 16:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 16:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 16:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 16:27	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 18:30	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	13.0J	mg/L	25.0	10.0	1		04/09/19 18:52		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.088J	mg/L	0.25	0.024	1		04/10/19 09:51	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 09:51	16984-48-8	
Sulfate	0.051J	mg/L	1.0	0.017	1		04/10/19 09:51	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Sample: EQBL040219		Lab ID: 2617082011		Collected: 04/02/19 16:20		Received: 04/05/19 11:20		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	ND	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 16:31	7440-38-2	
Barium	0.000076J	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 16:31	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 16:31	7440-41-7	
Boron	0.0035J	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 16:31	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 16:31	7440-43-9	
Calcium	ND	mg/L	0.50	0.021	1	04/09/19 20:29	04/11/19 16:31	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 16:31	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 16:31	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 16:31	7439-92-1	
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 16:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 16:31	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 16:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 16:31	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 18:32	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	11.0J	mg/L	25.0	10.0	1		04/09/19 18:52		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.19J	mg/L	0.25	0.024	1		04/10/19 10:13	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 10:13	16984-48-8	
Sulfate	0.052J	mg/L	1.0	0.017	1		04/10/19 10:13	14808-79-8	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617082

QC Batch: 468366 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2617082001, 2617082002, 2617082003, 2617082004, 2617082005, 2617082006, 2617082007, 2617082008, 2617082009

METHOD BLANK: 2544199 Matrix: Water
Associated Lab Samples: 2617082001, 2617082002, 2617082003, 2617082004, 2617082005, 2617082006, 2617082007, 2617082008, 2617082009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	04/11/19 19:03	

LABORATORY CONTROL SAMPLE: 2544200

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544201 2544202

Parameter	Units	2617069003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Mercury	mg/L				0.0019	0.0021				10	25	

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 Bowen Ash Pond

Pace Project No.: 2617082

QC Batch: 468368 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2617082010, 2617082011

METHOD BLANK: 2544203 Matrix: Water

Associated Lab Samples: 2617082010, 2617082011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	04/11/19 17:59	

LABORATORY CONTROL SAMPLE: 2544204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544205 2544206

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92421822002 Result	Spike Conc.	Spike Conc.	Result						
Mercury	mg/L				0.0024	0.0023			2	25	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617082

QC Batch: 468328 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 2617082001, 2617082002, 2617082003, 2617082004, 2617082005, 2617082006, 2617082007, 2617082008

METHOD BLANK: 2544084 Matrix: Water
Associated Lab Samples: 2617082001, 2617082002, 2617082003, 2617082004, 2617082005, 2617082006, 2617082007, 2617082008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.000060	04/10/19 16:27	
Barium	mg/L	ND	0.010	0.000060	04/10/19 16:27	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/19 16:27	
Boron	mg/L	ND	0.10	0.0026	04/10/19 16:27	
Cadmium	mg/L	ND	0.0010	0.000070	04/10/19 16:27	
Calcium	mg/L	ND	0.50	0.021	04/10/19 16:27	
Chromium	mg/L	ND	0.010	0.00042	04/10/19 16:27	
Cobalt	mg/L	ND	0.010	0.000050	04/10/19 16:27	
Lead	mg/L	ND	0.0050	0.000050	04/10/19 16:27	
Lithium	mg/L	ND	0.050	0.00042	04/10/19 16:27	
Molybdenum	mg/L	ND	0.010	0.00010	04/10/19 16:27	
Selenium	mg/L	ND	0.010	0.000080	04/10/19 16:27	
Thallium	mg/L	ND	0.0010	0.000060	04/10/19 16:27	

LABORATORY CONTROL SAMPLE: 2544085

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.01	0.010	100	80-120	
Barium	mg/L	0.05	0.049	99	80-120	
Beryllium	mg/L	0.01	0.0090	90	80-120	
Boron	mg/L	0.05	0.048J	95	80-120	
Cadmium	mg/L	0.01	0.010	100	80-120	
Calcium	mg/L	0.62	0.62	100	80-120	
Chromium	mg/L	0.05	0.050	101	80-120	
Cobalt	mg/L	0.01	0.010	101	80-120	
Lead	mg/L	0.05	0.050	100	80-120	
Lithium	mg/L	0.05	0.049J	99	80-120	
Molybdenum	mg/L	0.05	0.050	101	80-120	
Selenium	mg/L	0.05	0.050	100	80-120	
Thallium	mg/L	0.01	0.0099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544086 2544087

Parameter	Units	MS		MSD		% Rec	% Rec	% Rec Limits	RPD	Max RPD	Qual
		92421822002	Spike Conc.	MS Result	MSD Result						
Arsenic	mg/L			0.0099	0.0099				1	20	
Barium	mg/L			0.060	0.061				1	20	
Beryllium	mg/L			0.0090	0.0091				1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544086												2544087	
Parameter	Units	92421822002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Cadmium	mg/L				0.010	0.010				1	20		
Chromium	mg/L				0.049	0.050				1	20		
Cobalt	mg/L				0.0099J	0.010				1	20		
Lead	mg/L				0.049	0.050				2	20		
Lithium	mg/L				0.048J	0.047J				2	20		
Molybdenum	mg/L				0.050	0.050				1	20		
Selenium	mg/L				0.048	0.049				2	20		
Thallium	mg/L				0.0097	0.0099				2	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617082

QC Batch: 468329 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 2617082009, 2617082010, 2617082011

METHOD BLANK: 2544088 Matrix: Water
Associated Lab Samples: 2617082009, 2617082010, 2617082011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	0.000062J	0.0050	0.000060	04/10/19 19:29	
Barium	mg/L	ND	0.010	0.000060	04/10/19 19:29	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/19 19:29	
Boron	mg/L	ND	0.10	0.0026	04/10/19 19:29	
Cadmium	mg/L	ND	0.0010	0.000070	04/10/19 19:29	
Calcium	mg/L	ND	0.50	0.021	04/10/19 19:29	
Chromium	mg/L	ND	0.010	0.00042	04/10/19 19:29	
Cobalt	mg/L	ND	0.010	0.000050	04/10/19 19:29	
Lead	mg/L	ND	0.0050	0.000050	04/10/19 19:29	BC
Lithium	mg/L	ND	0.050	0.00042	04/10/19 19:29	
Molybdenum	mg/L	ND	0.010	0.00010	04/10/19 19:29	
Selenium	mg/L	ND	0.010	0.000080	04/10/19 19:29	
Thallium	mg/L	ND	0.0010	0.000060	04/10/19 19:29	

LABORATORY CONTROL SAMPLE: 2544089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.01	0.010	103	80-120	
Barium	mg/L	0.05	0.050	99	80-120	
Beryllium	mg/L	0.01	0.0095	95	80-120	
Boron	mg/L	0.05	0.049J	98	80-120	
Cadmium	mg/L	0.01	0.010	102	80-120	
Calcium	mg/L	0.62	0.64	102	80-120	
Chromium	mg/L	0.05	0.050	101	80-120	
Cobalt	mg/L	0.01	0.010	101	80-120	
Lead	mg/L	0.05	0.051	101	80-120	BC
Lithium	mg/L	0.05	0.052	104	80-120	
Molybdenum	mg/L	0.05	0.052	103	80-120	
Selenium	mg/L	0.05	0.051	102	80-120	
Thallium	mg/L	0.01	0.010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544090 2544091

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2617082009 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Arsenic	mg/L	0.00012J	0.01	0.01	0.0092	0.0091	91	90	75-125	1	20	
Barium	mg/L	0.025	0.05	0.05	0.068	0.067	87	85	75-125	2	20	
Beryllium	mg/L	ND	0.01	0.01	0.0081	0.0080	80	79	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617082

Parameter	Units	2544090		2544091		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2617082009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Boron	mg/L	0.49J	0.05	0.05	0.56	0.58	137	180	75-125	4	20	M1	
Cadmium	mg/L	ND	0.01	0.01	0.0091	0.0091	91	90	75-125	0	20		
Calcium	mg/L	55.8	0.62	0.62	54.5	53.7	-203	-330	75-125	1	20	M6	
Chromium	mg/L	ND	0.05	0.05	0.045	0.044	89	88	75-125	1	20		
Cobalt	mg/L	0.00010J	0.01	0.01	0.0089J	0.0088J	88	87	75-125	1	20		
Lead	mg/L	ND	0.05	0.05	0.044	0.045	88	90	75-125	2	20		
Lithium	mg/L	ND	0.05	0.05	0.044J	0.044J	89	87	75-125	2	20		
Molybdenum	mg/L	ND	0.05	0.05	0.046	0.046	92	93	75-125	1	20		
Selenium	mg/L	0.00091J	0.05	0.05	0.046	0.045	90	88	75-125	2	20		
Thallium	mg/L	ND	0.01	0.01	0.0088	0.0090	88	90	75-125	2	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617082

QC Batch: 26063 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2617082001, 2617082002, 2617082003, 2617082004, 2617082005, 2617082006, 2617082007, 2617082008, 2617082009, 2617082010, 2617082011

METHOD BLANK: 117675 Matrix: Water
Associated Lab Samples: 2617082001, 2617082002, 2617082003, 2617082004, 2617082005, 2617082006, 2617082007, 2617082008, 2617082009, 2617082010, 2617082011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.053J	0.25	0.024	04/09/19 21:23	
Fluoride	mg/L	ND	0.30	0.029	04/09/19 21:23	
Sulfate	mg/L	ND	1.0	0.017	04/09/19 21:23	

LABORATORY CONTROL SAMPLE: 117676

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117677 117678

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2617079001 Result	Spike Conc.	Spike Conc.	MS Result						
Chloride	mg/L	33.7	10	10	40.3	40.3	65	65	90-110	0	15 M1
Fluoride	mg/L	0.44	10	10	10.2	10.1	97	97	90-110	0	15
Sulfate	mg/L	255	10	10	178	178	-769	-769	90-110	0	15 E,M1

MATRIX SPIKE SAMPLE: 117679

Parameter	Units	2617079002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	3.8	10	13.4	96	90-110	
Fluoride	mg/L	ND	10	9.9	99	90-110	
Sulfate	mg/L	11.4	10	20.5	91	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617082

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

B Analyte was detected in the associated method blank.

BC The same analyte was detected in an associated blank at a concentration above 1/2 the reporting limit but below the laboratory reporting limit.

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

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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

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 Bowen Ash Pond
Pace Project No.: 2617082

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617082001	BGWC-10	EPA 3010A	468328	EPA 6020B	468390
2617082002	BGWC-30	EPA 3010A	468328	EPA 6020B	468390
2617082003	BGWC-36D	EPA 3010A	468328	EPA 6020B	468390
2617082004	BGWC-17	EPA 3010A	468328	EPA 6020B	468390
2617082005	BGWC-18	EPA 3010A	468328	EPA 6020B	468390
2617082006	BGWC-7	EPA 3010A	468328	EPA 6020B	468390
2617082007	BGWA-6	EPA 3010A	468328	EPA 6020B	468390
2617082008	BGWC-16	EPA 3010A	468328	EPA 6020B	468390
2617082009	Dup-2	EPA 3010A	468329	EPA 6020B	468391
2617082010	FBL040219	EPA 3010A	468329	EPA 6020B	468391
2617082011	EQBL040219	EPA 3010A	468329	EPA 6020B	468391
2617082001	BGWC-10	EPA 7470A	468366	EPA 7470A	468612
2617082002	BGWC-30	EPA 7470A	468366	EPA 7470A	468612
2617082003	BGWC-36D	EPA 7470A	468366	EPA 7470A	468612
2617082004	BGWC-17	EPA 7470A	468366	EPA 7470A	468612
2617082005	BGWC-18	EPA 7470A	468366	EPA 7470A	468612
2617082006	BGWC-7	EPA 7470A	468366	EPA 7470A	468612
2617082007	BGWA-6	EPA 7470A	468366	EPA 7470A	468612
2617082008	BGWC-16	EPA 7470A	468366	EPA 7470A	468612
2617082009	Dup-2	EPA 7470A	468366	EPA 7470A	468612
2617082010	FBL040219	EPA 7470A	468368	EPA 7470A	468610
2617082011	EQBL040219	EPA 7470A	468368	EPA 7470A	468610
2617082001	BGWC-10	SM 2540C	26059		
2617082002	BGWC-30	SM 2540C	26059		
2617082003	BGWC-36D	SM 2540C	26059		
2617082004	BGWC-17	SM 2540C	26059		
2617082005	BGWC-18	SM 2540C	26059		
2617082006	BGWC-7	SM 2540C	26059		
2617082007	BGWA-6	SM 2540C	26059		
2617082008	BGWC-16	SM 2540C	26059		
2617082009	Dup-2	SM 2540C	26059		
2617082010	FBL040219	SM 2540C	26059		
2617082011	EQBL040219	SM 2540C	26059		
2617082001	BGWC-10	EPA 300.0	26063		
2617082002	BGWC-30	EPA 300.0	26063		
2617082003	BGWC-36D	EPA 300.0	26063		
2617082004	BGWC-17	EPA 300.0	26063		
2617082005	BGWC-18	EPA 300.0	26063		
2617082006	BGWC-7	EPA 300.0	26063		
2617082007	BGWA-6	EPA 300.0	26063		
2617082008	BGWC-16	EPA 300.0	26063		
2617082009	Dup-2	EPA 300.0	26063		
2617082010	FBL040219	EPA 300.0	26063		
2617082011	EQBL040219	EPA 300.0	26063		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

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

WO#: **2617082**

PM: **BM** Due Date: **04/12/19**
CLIENT: **GAPower-CCR**

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 0.3

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 4/5/19 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)

April 29, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617084

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617084

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 Bowen Ash Pond

Pace Project No.: 2617084

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617084001	BGWC-10	Water	04/02/19 16:15	04/05/19 11:20
2617084002	BGWC-30	Water	04/02/19 10:24	04/05/19 11:20
2617084003	BGWC-36D	Water	04/02/19 12:10	04/05/19 11:20
2617084004	BGWC-17	Water	04/02/19 14:43	04/05/19 11:20
2617084005	BGWC-18	Water	04/02/19 16:28	04/05/19 11:20
2617084006	BGWC-7	Water	04/02/19 09:58	04/05/19 11:20
2617084007	BGWA-6	Water	04/02/19 11:33	04/05/19 11:20
2617084008	BGWC-16	Water	04/02/19 13:22	04/05/19 11:20
2617084009	Dup-2	Water	04/02/19 00:00	04/05/19 11:20
2617084010	FBL040219	Water	04/02/19 16:14	04/05/19 11:20
2617084011	EQBL040219	Water	04/02/19 16:20	04/05/19 11:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond
Pace Project No.: 2617084

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617084001	BGWC-10	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084002	BGWC-30	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084003	BGWC-36D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084004	BGWC-17	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084005	BGWC-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084006	BGWC-7	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084007	BGWA-6	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084008	BGWC-16	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084009	Dup-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084010	FBL040219	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617084011	EQBL040219	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: BGWC-10 **Lab ID: 2617084001** Collected: 04/02/19 16:15 Received: 04/05/19 11:20 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 ± 0.299 (0.464) C:89% T:NA	pCi/L	04/18/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.755 ± 0.454 (0.843) C:82% T:71%	pCi/L	04/18/19 15:37	15262-20-1	
Total Radium	Total Radium Calculation	1.21 ± 0.753 (1.31)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: BGWC-30 **Lab ID: 2617084002** Collected: 04/02/19 10:24 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.18 ± 0.462 (0.481) C:90% T:NA	pCi/L	04/18/19 08:03	13982-63-3	
Radium-228	EPA 9320	1.11 ± 0.472 (0.770) C:80% T:82%	pCi/L	04/18/19 15:37	15262-20-1	
Total Radium	Total Radium Calculation	2.29 ± 0.934 (1.25)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.39 ± 0.524 (0.616) C:91% T:NA	pCi/L	04/18/19 08:03	13982-63-3	
Radium-228	EPA 9320	1.42 ± 0.489 (0.648) C:83% T:75%	pCi/L	04/18/19 15:37	15262-20-1	
Total Radium	Total Radium Calculation	2.81 ± 1.01 (1.26)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: BGWC-17 **Lab ID: 2617084004** Collected: 04/02/19 14:43 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.133 ± 0.265 (0.614) C:90% T:NA	pCi/L	04/18/19 08:03	13982-63-3	
Radium-228	EPA 9320	0.577 ± 0.383 (0.727) C:83% T:77%	pCi/L	04/18/19 15:38	15262-20-1	
Total Radium	Total Radium Calculation	0.710 ± 0.648 (1.34)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: BGWC-18 **Lab ID: 2617084005** Collected: 04/02/19 16:28 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.393 ± 0.280 (0.437) C:87% T:NA	pCi/L	04/18/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.421 ± 0.322 (0.631) C:85% T:87%	pCi/L	04/18/19 15:37	15262-20-1	
Total Radium	Total Radium Calculation	0.814 ± 0.602 (1.07)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: BGWC-7 **Lab ID: 2617084006** Collected: 04/02/19 09:58 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.675 ± 0.403 (0.663) C:91% T:NA	pCi/L	04/18/19 08:03	13982-63-3	
Radium-228	EPA 9320	0.897 ± 0.389 (0.623) C:84% T:86%	pCi/L	04/18/19 15:37	15262-20-1	
Total Radium	Total Radium Calculation	1.57 ± 0.792 (1.29)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: BGWA-6 **Lab ID: 2617084007** Collected: 04/02/19 11:33 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0561 ± 0.221 (0.557) C:86% T:NA	pCi/L	04/18/19 08:03	13982-63-3	
Radium-228	EPA 9320	0.584 ± 0.363 (0.672) C:81% T:81%	pCi/L	04/18/19 15:37	15262-20-1	
Total Radium	Total Radium Calculation	0.640 ± 0.584 (1.23)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: BGWC-16 **Lab ID: 2617084008** Collected: 04/02/19 13:22 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.512 ± 0.329 (0.513) C:87% T:NA	pCi/L	04/18/19 08:03	13982-63-3	
Radium-228	EPA 9320	1.22 ± 0.510 (0.807) C:80% T:74%	pCi/L	04/18/19 15:38	15262-20-1	
Total Radium	Total Radium Calculation	1.73 ± 0.839 (1.32)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: Dup-2 **Lab ID: 2617084009** Collected: 04/02/19 00:00 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.642 ± 0.325 (0.376) C:91% T:NA	pCi/L	04/18/19 08:03	13982-63-3	
Radium-228	EPA 9320	0.861 ± 0.454 (0.802) C:79% T:70%	pCi/L	04/18/19 15:37	15262-20-1	
Total Radium	Total Radium Calculation	1.50 ± 0.779 (1.18)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: FBL040219 **Lab ID: 2617084010** Collected: 04/02/19 16:14 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.157 ± 0.127 (0.517) C:89% T:NA	pCi/L	04/18/19 08:03	13982-63-3	
Radium-228	EPA 9320	0.583 ± 0.545 (1.11) C:87% T:84%	pCi/L	04/18/19 19:59	15262-20-1	
Total Radium	Total Radium Calculation	0.583 ± 0.672 (1.63)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

Sample: EQBL040219 **Lab ID: 2617084011** Collected: 04/02/19 16:20 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0972 ± 0.242 (0.579) C:93% T:NA	pCi/L	04/18/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.634 ± 0.570 (1.16) C:81% T:85%	pCi/L	04/18/19 19:59	15262-20-1	
Total Radium	Total Radium Calculation	0.731 ± 0.812 (1.74)	pCi/L	04/22/19 11:25	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617084

QC Batch:	337921	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2617084001, 2617084002, 2617084003, 2617084004, 2617084005, 2617084006, 2617084007, 2617084008, 2617084009, 2617084010, 2617084011		

METHOD BLANK:	1644534	Matrix:	Water
Associated Lab Samples:	2617084001, 2617084002, 2617084003, 2617084004, 2617084005, 2617084006, 2617084007, 2617084008, 2617084009, 2617084010, 2617084011		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.156 ± 0.184 (0.361) C:97% T:NA	pCi/L	04/18/19 09:01	

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 Bowen Ash Pond

Pace Project No.: 2617084

QC Batch:	337913	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2617084001, 2617084002, 2617084003, 2617084004, 2617084005, 2617084006, 2617084007, 2617084008, 2617084009, 2617084010, 2617084011		

METHOD BLANK:	1644523	Matrix:	Water
Associated Lab Samples:	2617084001, 2617084002, 2617084003, 2617084004, 2617084005, 2617084006, 2617084007, 2617084008, 2617084009, 2617084010, 2617084011		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.226 ± 0.293 (0.621) C:88% T:75%	pCi/L	04/18/19 15:38	

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 Bowen Ash Pond

Pace Project No.: 2617084

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 Bowen Ash Pond
Pace Project No.: 2617084

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617084001	BGWC-10	EPA 9315	337921		
2617084002	BGWC-30	EPA 9315	337921		
2617084003	BGWC-36D	EPA 9315	337921		
2617084004	BGWC-17	EPA 9315	337921		
2617084005	BGWC-18	EPA 9315	337921		
2617084006	BGWC-7	EPA 9315	337921		
2617084007	BGWA-6	EPA 9315	337921		
2617084008	BGWC-16	EPA 9315	337921		
2617084009	Dup-2	EPA 9315	337921		
2617084010	FBL040219	EPA 9315	337921		
2617084011	EQBL040219	EPA 9315	337921		
2617084001	BGWC-10	EPA 9320	337913		
2617084002	BGWC-30	EPA 9320	337913		
2617084003	BGWC-36D	EPA 9320	337913		
2617084004	BGWC-17	EPA 9320	337913		
2617084005	BGWC-18	EPA 9320	337913		
2617084006	BGWC-7	EPA 9320	337913		
2617084007	BGWA-6	EPA 9320	337913		
2617084008	BGWC-16	EPA 9320	337913		
2617084009	Dup-2	EPA 9320	337913		
2617084010	FBL040219	EPA 9320	337913		
2617084011	EQBL040219	EPA 9320	337913		
2617084001	BGWC-10	Total Radium Calculation	339292		
2617084002	BGWC-30	Total Radium Calculation	339292		
2617084003	BGWC-36D	Total Radium Calculation	339292		
2617084004	BGWC-17	Total Radium Calculation	339292		
2617084005	BGWC-18	Total Radium Calculation	339292		
2617084006	BGWC-7	Total Radium Calculation	339292		
2617084007	BGWA-6	Total Radium Calculation	339292		
2617084008	BGWC-16	Total Radium Calculation	339292		
2617084009	Dup-2	Total Radium Calculation	339292		
2617084010	FBL040219	Total Radium Calculation	339292		
2617084011	EQBL040219	Total Radium Calculation	339292		

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Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

WO#: **2617084**

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

PM: **BM** Due Date: **05/03/19**
CLIENT: **GAPower-CCR**

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: 83 Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature: 0.3
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 4/5/19 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: _____ Date/Time: _____ Field Data Required? Y / N

Person Contacted: _____

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)

May 03, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617086

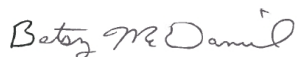
Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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 one issued on 4/15/2019. The report has been revised to correct metals units and target list per consultant request. No other changes have been made to this 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

Atlanta Certification IDs

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

Asheville Certification IDs

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 Bowen Ash Pond

Pace Project No.: 2617086

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617086001	BGWA-2	Water	04/01/19 10:39	04/05/19 11:20
2617086002	BGWA-29	Water	04/01/19 10:55	04/05/19 11:20
2617086003	BGWC-8	Water	04/01/19 12:36	04/05/19 11:20
2617086004	BGWC-9	Water	04/01/19 14:02	04/05/19 11:20
2617086005	BGWC-12	Water	04/01/19 15:12	04/05/19 11:20
2617086006	Dup-1	Water	04/01/19 00:00	04/05/19 11:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond
Pace Project No.: 2617086

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617086001	BGWA-2	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617086002	BGWA-29	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617086003	BGWC-8	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617086004	BGWC-9	EPA 6020B	JMW1, SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617086005	BGWC-12	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
2617086006	Dup-1	EPA 6020B	SER	13	PASI-A
		EPA 7470A	RDT	1	PASI-A
		SM 2540C	RLC	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

Sample: BGWA-2		Lab ID: 2617086001		Collected: 04/01/19 10:39		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00049J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 16:34	7440-38-2	B	
Barium	0.16	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 16:34	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 16:34	7440-41-7		
Boron	0.0076J	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 16:34	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 16:34	7440-43-9		
Calcium	48.2	mg/L	2.5	0.10	5	04/09/19 20:29	04/11/19 16:38	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 16:34	7440-47-3		
Cobalt	0.00014J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 16:34	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 16:34	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 16:34	7439-93-2		
Molybdenum	0.0014J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 16:34	7439-98-7		
Selenium	0.00011J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 16:34	7782-49-2		
Thallium	0.00011J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 16:34	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 18:35	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	226	mg/L	25.0	10.0	1		04/08/19 15:23		D6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.2	mg/L	0.25	0.024	1		04/10/19 02:13	16887-00-6		
Fluoride	0.047J	mg/L	0.30	0.029	1		04/10/19 02:13	16984-48-8		
Sulfate	10.8	mg/L	1.0	0.017	1		04/10/19 02:13	14808-79-8	M1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

Sample: BGWA-29 Lab ID: 2617086002 Collected: 04/01/19 10:55 Received: 04/05/19 11:20 Matrix: Water									
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Arsenic	0.00019J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 16:41	7440-38-2	B
Barium	0.014	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 16:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 16:41	7440-41-7	
Boron	0.0048J	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 16:41	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 16:41	7440-43-9	
Calcium	24.6	mg/L	2.5	0.10	5	04/09/19 20:29	04/11/19 16:45	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 16:41	7440-47-3	
Cobalt	ND	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 16:41	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 16:41	7439-92-1	
Lithium	0.00059J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 16:41	7439-93-2	
Molybdenum	0.00053J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 16:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 16:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 16:41	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 18:37	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	114	mg/L	25.0	10.0	1		04/08/19 15:25		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	1.6	mg/L	0.25	0.024	1		04/10/19 03:23	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 03:23	16984-48-8	
Sulfate	5.2	mg/L	1.0	0.017	1		04/10/19 03:23	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

Sample: BGWC-8		Lab ID: 2617086003		Collected: 04/01/19 12:36	Received: 04/05/19 11:20	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00041J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 16:55	7440-38-2	B	
Barium	0.025	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 16:55	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 16:55	7440-41-7		
Boron	0.046J	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 16:55	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 16:55	7440-43-9		
Calcium	47.2	mg/L	2.5	0.10	5	04/09/19 20:29	04/11/19 16:59	7440-70-2		
Chromium	0.00091J	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 16:55	7440-47-3		
Cobalt	0.000056J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 16:55	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 16:55	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 16:55	7439-93-2		
Molybdenum	0.00054J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 16:55	7439-98-7		
Selenium	0.00015J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 16:55	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 16:55	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 18:39	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	191	mg/L	25.0	10.0	1		04/08/19 15:25			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.8	mg/L	0.25	0.024	1		04/10/19 03:46	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/10/19 03:46	16984-48-8		
Sulfate	30.5	mg/L	1.0	0.017	1		04/10/19 03:46	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617086

Sample: BGWC-9		Lab ID: 2617086004		Collected: 04/01/19 14:02	Received: 04/05/19 11:20	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.0026J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 21:21	7440-38-2	
Barium	0.027	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 21:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 21:21	7440-41-7	
Boron	0.50	mg/L	0.50	0.013	5	04/09/19 20:29	04/11/19 17:03	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 21:21	7440-43-9	
Calcium	59.3	mg/L	10.0	0.41	20	04/09/19 20:29	04/12/19 02:26	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 21:21	7440-47-3	
Cobalt	0.00024J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 21:21	7440-48-4	
Lead	0.000092J	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 21:21	7439-92-1	
Lithium	0.0012J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 21:21	7439-93-2	
Molybdenum	0.0027J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 21:21	7439-98-7	
Selenium	0.00040J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 21:21	7782-49-2	
Thallium	0.000065J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 21:21	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 18:42	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	326	mg/L	25.0	10.0	1		04/08/19 15:26		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	13.4	mg/L	0.25	0.024	1		04/10/19 04:09	16887-00-6	
Fluoride	0.33	mg/L	0.30	0.029	1		04/10/19 04:09	16984-48-8	
Sulfate	81.4	mg/L	10.0	0.17	10		04/10/19 09:57	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

Sample: BGWC-12		Lab ID: 2617086005		Collected: 04/01/19 15:12		Received: 04/05/19 11:20		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A							
Arsenic	0.00028J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/10/19 21:25	7440-38-2	B
Barium	0.023	mg/L	0.010	0.000060	1	04/09/19 20:29	04/10/19 21:25	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/10/19 21:25	7440-41-7	
Boron	0.86J	mg/L	1.0	0.026	10	04/09/19 20:29	04/11/19 17:06	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/10/19 21:25	7440-43-9	
Calcium	94.8	mg/L	5.0	0.21	10	04/09/19 20:29	04/11/19 17:06	7440-70-2	
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/10/19 21:25	7440-47-3	
Cobalt	0.00034J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/10/19 21:25	7440-48-4	
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/10/19 21:25	7439-92-1	
Lithium	0.00078J	mg/L	0.050	0.00042	1	04/09/19 20:29	04/10/19 21:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00010	1	04/09/19 20:29	04/10/19 21:25	7439-98-7	
Selenium	0.00040J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/10/19 21:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/10/19 21:25	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 18:44	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	191	mg/L	25.0	10.0	1		04/08/19 15:27		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	24.1	mg/L	0.25	0.024	1		04/10/19 04:32	16887-00-6	
Fluoride	0.065J	mg/L	0.30	0.029	1		04/10/19 04:32	16984-48-8	
Sulfate	239	mg/L	20.0	0.34	20		04/10/19 10:20	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

Sample: Dup-1		Lab ID: 2617086006		Collected: 04/01/19 00:00		Received: 04/05/19 11:20		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020 MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3010A								
Arsenic	0.00048J	mg/L	0.0050	0.000060	1	04/09/19 20:29	04/11/19 17:10	7440-38-2	B	
Barium	0.16	mg/L	0.010	0.000060	1	04/09/19 20:29	04/11/19 17:10	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/09/19 20:29	04/11/19 17:10	7440-41-7		
Boron	0.013J	mg/L	0.10	0.0026	1	04/09/19 20:29	04/11/19 17:10	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000070	1	04/09/19 20:29	04/11/19 17:10	7440-43-9		
Calcium	46.7	mg/L	2.5	0.10	5	04/09/19 20:29	04/11/19 17:13	7440-70-2		
Chromium	ND	mg/L	0.010	0.00042	1	04/09/19 20:29	04/11/19 17:10	7440-47-3		
Cobalt	0.00014J	mg/L	0.010	0.000050	1	04/09/19 20:29	04/11/19 17:10	7440-48-4		
Lead	ND	mg/L	0.0050	0.000050	1	04/09/19 20:29	04/11/19 17:10	7439-92-1		
Lithium	ND	mg/L	0.050	0.00042	1	04/09/19 20:29	04/11/19 17:10	7439-93-2		
Molybdenum	0.0014J	mg/L	0.010	0.00010	1	04/09/19 20:29	04/11/19 17:10	7439-98-7		
Selenium	0.00011J	mg/L	0.010	0.000080	1	04/09/19 20:29	04/11/19 17:10	7782-49-2		
Thallium	0.00011J	mg/L	0.0010	0.000060	1	04/09/19 20:29	04/11/19 17:10	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00020	0.00010	1	04/10/19 12:38	04/11/19 18:47	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	178	mg/L	25.0	10.0	1		04/08/19 15:28			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.2	mg/L	0.25	0.024	1		04/10/19 04:55	16887-00-6		
Fluoride	0.21J	mg/L	0.30	0.029	1		04/10/19 04:55	16984-48-8		
Sulfate	10.9	mg/L	1.0	0.017	1		04/10/19 04:55	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

QC Batch: 468368

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2617086001, 2617086002, 2617086003, 2617086004, 2617086005, 2617086006

METHOD BLANK: 2544203

Matrix: Water

Associated Lab Samples: 2617086001, 2617086002, 2617086003, 2617086004, 2617086005, 2617086006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00010	04/11/19 17:59	

LABORATORY CONTROL SAMPLE: 2544204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544205 2544206

Parameter	Units	2544205		2544206		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Mercury	mg/L	92421822002		0.0024	0.0023					2	25	

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 Bowen Ash Pond
Pace Project No.: 2617086

QC Batch: 468329 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 2617086001, 2617086002, 2617086003, 2617086004, 2617086005, 2617086006

METHOD BLANK: 2544088 Matrix: Water
Associated Lab Samples: 2617086001, 2617086002, 2617086003, 2617086004, 2617086005, 2617086006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	0.000062J	0.0050	0.000060	04/10/19 19:29	
Barium	mg/L	ND	0.010	0.000060	04/10/19 19:29	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/19 19:29	
Boron	mg/L	ND	0.10	0.0026	04/10/19 19:29	
Cadmium	mg/L	ND	0.0010	0.000070	04/10/19 19:29	
Calcium	mg/L	ND	0.50	0.021	04/10/19 19:29	
Chromium	mg/L	ND	0.010	0.00042	04/10/19 19:29	
Cobalt	mg/L	ND	0.010	0.000050	04/10/19 19:29	
Lead	mg/L	ND	0.0050	0.000050	04/10/19 19:29	BC
Lithium	mg/L	ND	0.050	0.00042	04/10/19 19:29	
Molybdenum	mg/L	ND	0.010	0.00010	04/10/19 19:29	
Selenium	mg/L	ND	0.010	0.000080	04/10/19 19:29	
Thallium	mg/L	ND	0.0010	0.000060	04/10/19 19:29	

LABORATORY CONTROL SAMPLE: 2544089

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.01	0.010	103	80-120	
Barium	mg/L	0.05	0.050	99	80-120	
Beryllium	mg/L	0.01	0.0095	95	80-120	
Boron	mg/L	0.05	0.049J	98	80-120	
Cadmium	mg/L	0.01	0.010	102	80-120	
Calcium	mg/L	0.62	0.64	102	80-120	
Chromium	mg/L	0.05	0.050	101	80-120	
Cobalt	mg/L	0.01	0.010	101	80-120	
Lead	mg/L	0.05	0.051	101	80-120	BC
Lithium	mg/L	0.05	0.052	104	80-120	
Molybdenum	mg/L	0.05	0.052	103	80-120	
Selenium	mg/L	0.05	0.051	102	80-120	
Thallium	mg/L	0.01	0.010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2544090 2544091

Parameter	Units	2617082009 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Arsenic	mg/L	0.00012J	0.01	0.01	0.0092	0.0091	91	90	75-125	1	20	
Barium	mg/L	0.025	0.05	0.05	0.068	0.067	87	85	75-125	2	20	
Beryllium	mg/L	ND	0.01	0.01	0.0081	0.0080	80	79	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

Parameter	Units	2544090		2544091		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Boron	mg/L	0.49J	0.05	0.05	0.56	0.58	137	180	75-125	4	20	M1	
Cadmium	mg/L	ND	0.01	0.01	0.0091	0.0091	91	90	75-125	0	20		
Calcium	mg/L	55.8	0.62	0.62	54.5	53.7	-203	-330	75-125	1	20	M6	
Chromium	mg/L	ND	0.05	0.05	0.045	0.044	89	88	75-125	1	20		
Cobalt	mg/L	0.00010J	0.01	0.01	0.0089J	0.0088J	88	87	75-125	1	20		
Lead	mg/L	ND	0.05	0.05	0.044	0.045	88	90	75-125	2	20		
Lithium	mg/L	ND	0.05	0.05	0.044J	0.044J	89	87	75-125	2	20		
Molybdenum	mg/L	ND	0.05	0.05	0.046	0.046	92	93	75-125	1	20		
Selenium	mg/L	0.00091J	0.05	0.05	0.046	0.045	90	88	75-125	2	20		
Thallium	mg/L	ND	0.01	0.01	0.0088	0.0090	88	90	75-125	2	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2617086

QC Batch: 25999

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 2617086001, 2617086002, 2617086003, 2617086004, 2617086005, 2617086006

LABORATORY CONTROL SAMPLE: 117377

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	411	103	84-108	

SAMPLE DUPLICATE: 117378

Parameter	Units	2617086001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	226	203	11	10	D6

SAMPLE DUPLICATE: 117379

Parameter	Units	2616901015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	13.0J		10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2617086

QC Batch: 26064 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2617086001, 2617086002, 2617086003, 2617086004, 2617086005, 2617086006

METHOD BLANK: 117680 Matrix: Water
Associated Lab Samples: 2617086001, 2617086002, 2617086003, 2617086004, 2617086005, 2617086006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	04/10/19 01:27	
Fluoride	mg/L	ND	0.30	0.029	04/10/19 01:27	
Sulfate	mg/L	ND	1.0	0.017	04/10/19 01:27	

LABORATORY CONTROL SAMPLE: 117681

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117682 117683

Parameter	Units	2617086001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.2	10	10	14.3	14.3	101	101	90-110	0	15	
Fluoride	mg/L	0.047J	10	10	10.4	10.4	103	103	90-110	0	15	
Sulfate	mg/L	10.8	10	10	19.6	19.6	89	88	90-110	0	15	M1

MATRIX SPIKE SAMPLE: 117684

Parameter	Units	2617086002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.6	10	10.7	91	90-110	
Fluoride	mg/L	ND	10	9.2	92	90-110	
Sulfate	mg/L	5.2	10	13.7	85	90-110	M1

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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617086

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

B Analyte was detected in the associated method blank.
BC The same analyte was detected in an associated blank at a concentration above 1/2 the reporting limit but below the laboratory reporting limit.
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.
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 Bowen Ash Pond

Pace Project No.: 2617086

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617086001	BGWA-2	EPA 3010A	468329	EPA 6020B	468391
2617086002	BGWA-29	EPA 3010A	468329	EPA 6020B	468391
2617086003	BGWC-8	EPA 3010A	468329	EPA 6020B	468391
2617086004	BGWC-9	EPA 3010A	468329	EPA 6020B	468391
2617086005	BGWC-12	EPA 3010A	468329	EPA 6020B	468391
2617086006	Dup-1	EPA 3010A	468329	EPA 6020B	468391
2617086001	BGWA-2	EPA 7470A	468368	EPA 7470A	468610
2617086002	BGWA-29	EPA 7470A	468368	EPA 7470A	468610
2617086003	BGWC-8	EPA 7470A	468368	EPA 7470A	468610
2617086004	BGWC-9	EPA 7470A	468368	EPA 7470A	468610
2617086005	BGWC-12	EPA 7470A	468368	EPA 7470A	468610
2617086006	Dup-1	EPA 7470A	468368	EPA 7470A	468610
2617086001	BGWA-2	SM 2540C	25999		
2617086002	BGWA-29	SM 2540C	25999		
2617086003	BGWC-8	SM 2540C	25999		
2617086004	BGWC-9	SM 2540C	25999		
2617086005	BGWC-12	SM 2540C	25999		
2617086006	Dup-1	SM 2540C	25999		
2617086001	BGWA-2	EPA 300.0	26064		
2617086002	BGWA-29	EPA 300.0	26064		
2617086003	BGWC-8	EPA 300.0	26064		
2617086004	BGWC-9	EPA 300.0	26064		
2617086005	BGWC-12	EPA 300.0	26064		
2617086006	Dup-1	EPA 300.0	26064		

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Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

WO#: 2617086

PM: **BM**

Due Date: **04/12/19**

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 0.3
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 4/5/19 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)

April 29, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2617087

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 05, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2617087

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 Bowen Ash Pond

Pace Project No.: 2617087

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617087001	BGWA-2	Water	04/01/19 10:39	04/05/19 11:20
2617087002	BGWA-29	Water	04/01/19 10:55	04/05/19 11:20
2617087003	BGWC-8	Water	04/01/19 12:36	04/05/19 11:20
2617087004	BGWC-9	Water	04/01/19 14:02	04/05/19 11:20
2617087005	BGWC-12	Water	04/01/19 15:12	04/05/19 11:20
2617087006	Dup-1	Water	04/01/19 00:00	04/05/19 11:20

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2617087

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617087001	BGWA-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617087002	BGWA-29	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617087003	BGWC-8	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617087004	BGWC-9	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617087005	BGWC-12	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617087006	Dup-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617087

Sample: BGWA-2 **Lab ID: 2617087001** Collected: 04/01/19 10:39 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.616 ± 0.315 (0.349) C:88% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	0.820 ± 0.620 (1.22) C:80% T:76%	pCi/L	04/18/19 18:08	15262-20-1	
Total Radium	Total Radium Calculation	1.44 ± 0.935 (1.57)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617087

Sample: BGWA-29 **Lab ID: 2617087002** Collected: 04/01/19 10:55 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0932 ± 0.225 (0.535) C:89% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	0.567 ± 0.500 (1.01) C:86% T:79%	pCi/L	04/18/19 18:11	15262-20-1	
Total Radium	Total Radium Calculation	0.660 ± 0.725 (1.55)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617087

Sample: BGWC-8 **Lab ID: 2617087003** Collected: 04/01/19 12:36 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.326 ± 0.265 (0.451) C:82% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	0.148 ± 0.449 (1.01) C:84% T:82%	pCi/L	04/18/19 18:20	15262-20-1	
Total Radium	Total Radium Calculation	0.474 ± 0.714 (1.46)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617087

Sample: BGWC-9 **Lab ID: 2617087004** Collected: 04/01/19 14:02 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.225 ± 0.210 (0.369) C:94% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	-0.216 ± 0.398 (0.985) C:83% T:80%	pCi/L	04/18/19 18:19	15262-20-1	
Total Radium	Total Radium Calculation	0.225 ± 0.608 (1.35)	pCi/L	04/22/19 11:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617087

Sample: BGWC-12 **Lab ID: 2617087005** Collected: 04/01/19 15:12 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.328 ± 0.252 (0.422) C:95% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	-0.347 ± 0.447 (1.12) C:84% T:76%	pCi/L	04/18/19 18:19	15262-20-1	
Total Radium	Total Radium Calculation	0.328 ± 0.699 (1.54)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617087

Sample: Dup-1 **Lab ID: 2617087006** Collected: 04/01/19 00:00 Received: 04/05/19 11:20 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.668 ± 0.322 (0.346) C:92% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	0.831 ± 0.398 (0.684) C:80% T:92%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	1.50 ± 0.720 (1.03)	pCi/L	04/22/19 11:25	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2617087

QC Batch: 337921 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 2617087001, 2617087002, 2617087003, 2617087004, 2617087005, 2617087006

METHOD BLANK: 1644534 Matrix: Water

Associated Lab Samples: 2617087001, 2617087002, 2617087003, 2617087004, 2617087005, 2617087006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.156 ± 0.184 (0.361) C:97% T:NA	pCi/L	04/18/19 09:01	

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 Bowen Ash Pond

Pace Project No.: 2617087

QC Batch: 337913

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2617087001, 2617087002, 2617087003, 2617087004, 2617087005, 2617087006

METHOD BLANK: 1644523

Matrix: Water

Associated Lab Samples: 2617087001, 2617087002, 2617087003, 2617087004, 2617087005, 2617087006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.226 ± 0.293 (0.621) C:88% T:75%	pCi/L	04/18/19 15:38	

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 Bowen Ash Pond
Pace Project No.: 2617087

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond
Pace Project No.: 2617087

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617087001	BGWA-2	EPA 9315	337921		
2617087002	BGWA-29	EPA 9315	337921		
2617087003	BGWC-8	EPA 9315	337921		
2617087004	BGWC-9	EPA 9315	337921		
2617087005	BGWC-12	EPA 9315	337921		
2617087006	Dup-1	EPA 9315	337921		
2617087001	BGWA-2	EPA 9320	337913		
2617087002	BGWA-29	EPA 9320	337913		
2617087003	BGWC-8	EPA 9320	337913		
2617087004	BGWC-9	EPA 9320	337913		
2617087005	BGWC-12	EPA 9320	337913		
2617087006	Dup-1	EPA 9320	337913		
2617087001	BGWA-2	Total Radium Calculation	339292		
2617087002	BGWA-29	Total Radium Calculation	339292		
2617087003	BGWC-8	Total Radium Calculation	339292		
2617087004	BGWC-9	Total Radium Calculation	339292		
2617087005	BGWC-12	Total Radium Calculation	339292		
2617087006	Dup-1	Total Radium Calculation	339292		

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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.

Page: 1 Of 1

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Jbju Abraham	Attention:	
Address:	2480 Manor Road Atlanta, GA 30339	Copy To:	Geosyntec Whitliffy Lew	Company Name:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10348606	Address:	
Phone:	(404)506-7239	Project Name:	Plant Bowen Ash Pond	Pace Project Manager:	betsy.mcdaniel@parcelabs.com
Requested Due Date:		Project #:		Pace Profile #:	315
				Regulatory Agency:	
				State/Location:	GA

#	MATRIX	CODE	COLLECTED	DATE	TIME	DATE	TIME	DATE	TIME	TEMP IN C	Received on	Sealed	Cooler	Samples
1	Drinking Water	DW	1039	4/1/19	10:20	4/5/19	10:20	4/5/19	10:20					
2	Waste Water	WW	1055	4/1/19										
3	Waste Water	WW	1236	4/1/19										
4	Waste Water	WW	1407	4/1/19										
5	Waste Water	WW	1512	4/1/19										
6	Waste Water	WW		4/1/19										
7														
8														
9														
10														
11														
12														

NO#: 2617087

ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
Residual		Residual		4-5-19		10:20		Residual		4-5-19		10:20			
								Mcdaniel		4/5/19		11:20		0.3 7 7 7	
SAMPLER NAME AND SIGNATURE															
PRINT Name of SAMPLER: <i>Betsy McDaniel</i>															
SIGNATURE of SAMPLER: <i>Betsy McDaniel</i>															
DATE Signed: 4/1/19															



Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

WO#: **2617087**

PM: **BM**

Due Date: **05/03/19**

CLIENT: **GAPower-CCR**

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

Custody Seal on Cooler/Box Present: yes no Seals intact: yes 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 0.3 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/5/19 MK

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)

July 01, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2618160

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on May 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.

This revised report replaces the report issued on 5/13/2019. The report has been revised to provide confirmation molybdenum data on BGWC-38D. No other changes have been made to this report.

This revised report replaces the revision issued on 5/23/2019. The report has been revised to remove the extra metals for sample BGWC-22 (2618160001) and to remove the confirmation result for BGWC-38D (2618160003). No other changes have been made to this report.

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

Sincerely,



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

Enclosures



REPORT OF LABORATORY ANALYSIS

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July 01, 2019
Page 2

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Atlanta Certification IDs

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 Bowen Ash Pond

Pace Project No.: 2618160

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2618160001	BGWC-22	Water	05/02/19 11:12	05/03/19 13:25
2618160002	BGWA-2	Water	05/02/19 14:15	05/03/19 13:25
2618160003	BGWC-38D	Water	05/02/19 16:10	05/03/19 13:25
2618160004	BGWC-37D	Water	05/03/19 10:38	05/03/19 13:25
2618160005	BGWC-32	Water	05/03/19 10:44	05/03/19 13:25
2618160006	Dup-01	Water	05/02/19 00:00	05/03/19 13:25
2618160007	FBL-050319	Water	05/03/19 11:21	05/03/19 13:25
2618160008	EQBL-050319	Water	05/03/19 11:24	05/03/19 13:25

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2618160001	BGWC-22	EPA 6010D	AAP	1
		EPA 6020B	CSW	7
		SM 2320B	JAD	3
		EPA 300.0	RLC	3
2618160002	BGWA-2	EPA 6010D	AAP	1
		EPA 6020B	CSW	7
		SM 2320B	JAD	3
		EPA 300.0	RLC	3
2618160003	BGWC-38D	EPA 6020B	CSW	1
2618160004	BGWC-37D	EPA 6020B	CSW	1
2618160005	BGWC-32	EPA 6010D	AAP	1
		EPA 6020B	CSW	7
		SM 2320B	JAD	3
		EPA 300.0	RLC	3
2618160006	Dup-01	EPA 6020B	CSW	1
2618160007	FBL-050319	EPA 6010D	AAP	1
		EPA 6020B	CSW	7
		SM 2320B	JAD	3
		EPA 300.0	MWB	3
2618160008	EQBL-050319	EPA 6010D	AAP	1
		EPA 6020B	CSW	7
		SM 2320B	JAD	3
		EPA 300.0	RLC	3

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Sample: BGWC-22		Lab ID: 2618160001		Collected: 05/02/19 11:12	Received: 05/03/19 13:25	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								
Silicon	5.0	mg/L	0.040	0.0040	1	05/07/19 12:26	05/10/19 02:32	7440-21-3		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Boron	10.1	mg/L	0.040	0.0039	1	05/07/19 14:25	05/09/19 21:21	7440-42-8	M1	
Calcium	647	mg/L	25.0	0.69	50	05/07/19 14:25	05/09/19 21:27	7440-70-2	M6	
Cobalt	0.023J	mg/L	0.050	0.0026	5	05/07/19 14:25	05/11/19 12:37	7440-48-4		
Magnesium	84.0	mg/L	2.5	0.31	50	05/07/19 14:25	05/11/19 11:45	7439-95-4	M6	
Molybdenum	0.043	mg/L	0.010	0.0019	1	05/07/19 14:25	05/09/19 21:21	7439-98-7		
Potassium	13.6	mg/L	0.10	0.035	1	05/07/19 14:25	05/09/19 21:21	7440-09-7	M1	
Sodium	39.0	mg/L	0.10	0.015	1	05/07/19 14:25	05/09/19 21:21	7440-23-5	M1	
2320B Alkalinity		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	79.0	mg/L	20.0	20.0	1		05/03/19 17:30			
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	20.0	20.0	1		05/03/19 17:30			
Alkalinity, Total as CaCO ₃	79.0	mg/L	20.0	20.0	1		05/03/19 17:30			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	999	mg/L	12.5	1.2	50		05/10/19 10:37	16887-00-6		
Fluoride	1.4	mg/L	0.30	0.029	1		05/09/19 02:48	16984-48-8		
Sulfate	827	mg/L	50.0	0.85	50		05/10/19 10:37	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2618160

Sample: BGWA-2		Lab ID: 2618160002		Collected: 05/02/19 14:15	Received: 05/03/19 13:25	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							
Silicon	4.6	mg/L	0.040	0.0040	1	05/07/19 12:26	05/10/19 03:15	7440-21-3	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Boron	0.015J	mg/L	0.040	0.0039	1	05/07/19 14:25	05/09/19 22:12	7440-42-8	
Calcium	44.8	mg/L	25.0	0.69	50	05/07/19 14:25	05/09/19 22:18	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	05/07/19 14:25	05/09/19 22:12	7440-48-4	
Magnesium	25.5	mg/L	2.5	0.31	50	05/07/19 14:25	05/09/19 22:18	7439-95-4	
Molybdenum	ND	mg/L	0.010	0.0019	1	05/07/19 14:25	05/09/19 22:12	7439-98-7	
Potassium	1.9	mg/L	0.10	0.035	1	05/07/19 14:25	05/09/19 22:12	7440-09-7	
Sodium	2.7	mg/L	0.10	0.015	1	05/07/19 14:25	05/09/19 22:12	7440-23-5	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	196	mg/L	20.0	20.0	1		05/03/19 17:34		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	20.0	20.0	1		05/03/19 17:34		
Alkalinity, Total as CaCO ₃	196	mg/L	20.0	20.0	1		05/03/19 17:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.3	mg/L	0.25	0.024	1		05/09/19 04:31	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		05/09/19 04:31	16984-48-8	
Sulfate	11.2	mg/L	1.0	0.017	1		05/09/19 04:31	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Sample: BGWC-38D		Lab ID: 2618160003		Collected: 05/02/19 16:10	Received: 05/03/19 13:25	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							
Molybdenum	0.11	mg/L	0.010	0.0019	1	05/07/19 14:25	05/09/19 22:24	7439-98-7	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Sample: BGWC-37D									
Lab ID: 2618160004									
Collected: 05/03/19 10:38 Received: 05/03/19 13:25 Matrix: Water									
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Molybdenum	0.040	mg/L	0.010	0.0019	1	05/07/19 14:25	05/09/19 22:30	7439-98-7	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Sample: BGWC-32		Lab ID: 2618160005		Collected: 05/03/19 10:44		Received: 05/03/19 13:25		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							
Silicon	4.6	mg/L	0.040	0.0040	1	05/07/19 12:26	05/10/19 03:20	7440-21-3	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Boron	3.4	mg/L	0.040	0.0039	1	05/07/19 14:25	05/09/19 22:35	7440-42-8	
Calcium	203	mg/L	25.0	0.69	50	05/07/19 14:25	05/09/19 22:41	7440-70-2	
Cobalt	0.0078J	mg/L	0.010	0.00052	1	05/07/19 14:25	05/09/19 22:35	7440-48-4	
Magnesium	61.4	mg/L	2.5	0.31	50	05/07/19 14:25	05/09/19 22:41	7439-95-4	
Molybdenum	0.0048J	mg/L	0.010	0.0019	1	05/07/19 14:25	05/09/19 22:35	7439-98-7	
Potassium	4.9	mg/L	0.10	0.035	1	05/07/19 14:25	05/09/19 22:35	7440-09-7	
Sodium	19.2	mg/L	5.0	0.75	50	05/07/19 14:25	05/09/19 22:41	7440-23-5	B
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	184	mg/L	20.0	20.0	1		05/03/19 17:39		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	20.0	20.0	1		05/03/19 17:39		
Alkalinity, Total as CaCO ₃	184	mg/L	20.0	20.0	1		05/03/19 17:39		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	257	mg/L	5.0	0.48	20		05/10/19 10:59	16887-00-6	
Fluoride	1.3	mg/L	0.30	0.029	1		05/09/19 04:52	16984-48-8	
Sulfate	304	mg/L	20.0	0.34	20		05/10/19 10:59	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Sample: Dup-01									
Lab ID: 2618160006									
Collected: 05/02/19 00:00 Received: 05/03/19 13:25 Matrix: Water									
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Molybdenum	0.11	mg/L	0.010	0.0019	1	05/07/19 14:25	05/09/19 22:47	7439-98-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Sample: FBL-050319		Lab ID: 2618160007		Collected: 05/03/19 11:21	Received: 05/03/19 13:25	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								
Silicon	ND	mg/L	0.040	0.0040	1	05/07/19 12:26	05/10/19 03:30	7440-21-3		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Boron	0.031J	mg/L	0.040	0.0039	1	05/07/19 14:25	05/09/19 22:52	7440-42-8		
Calcium	0.051J	mg/L	0.50	0.014	1	05/07/19 14:25	05/09/19 22:52	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	05/07/19 14:25	05/09/19 22:52	7440-48-4		
Magnesium	0.015J	mg/L	0.050	0.0062	1	05/07/19 14:25	05/09/19 22:52	7439-95-4	B	
Molybdenum	ND	mg/L	0.010	0.0019	1	05/07/19 14:25	05/09/19 22:52	7439-98-7		
Potassium	ND	mg/L	0.10	0.035	1	05/07/19 14:25	05/09/19 22:52	7440-09-7		
Sodium	ND	mg/L	0.10	0.015	1	05/07/19 14:25	05/09/19 22:52	7440-23-5		
2320B Alkalinity Low Level		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	ND	mg/L	1.0	1.0	1		05/06/19 17:44			
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	1.0	1.0	1		05/06/19 17:44			
Alkalinity, Total as CaCO ₃	ND	mg/L	1.0	1.0	1		05/06/19 17:44			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.062J	mg/L	0.25	0.024	1		05/10/19 18:56	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		05/10/19 18:56	16984-48-8		
Sulfate	0.040J	mg/L	1.0	0.017	1		05/10/19 18:56	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

Sample: EQBL-050319		Lab ID: 2618160008		Collected: 05/03/19 11:24	Received: 05/03/19 13:25	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								
Silicon	ND	mg/L	0.040	0.0040	1	05/07/19 12:26	05/10/19 03:36	7440-21-3		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Boron	0.012J	mg/L	0.040	0.0039	1	05/07/19 14:25	05/09/19 22:58	7440-42-8		
Calcium	0.088J	mg/L	0.50	0.014	1	05/07/19 14:25	05/09/19 22:58	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	05/07/19 14:25	05/09/19 22:58	7440-48-4		
Magnesium	0.0084J	mg/L	0.050	0.0062	1	05/07/19 14:25	05/09/19 22:58	7439-95-4	B	
Molybdenum	ND	mg/L	0.010	0.0019	1	05/07/19 14:25	05/09/19 22:58	7439-98-7		
Potassium	ND	mg/L	0.10	0.035	1	05/07/19 14:25	05/09/19 22:58	7440-09-7		
Sodium	0.095J	mg/L	0.10	0.015	1	05/07/19 14:25	05/09/19 22:58	7440-23-5	B	
2320B Alkalinity Low Level		Analytical Method: SM 2320B								
Alkalinity, Bicarbonate (CaCO ₃)	ND	mg/L	1.0	1.0	1		05/06/19 17:47			
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	1.0	1.0	1		05/06/19 17:47			
Alkalinity, Total as CaCO ₃	ND	mg/L	1.0	1.0	1		05/06/19 17:47			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.29	mg/L	0.25	0.024	1		05/09/19 05:34	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		05/09/19 05:34	16984-48-8		
Sulfate	0.36J	mg/L	1.0	0.017	1		05/09/19 05:34	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

QC Batch: 27891 Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A Analysis Description: 6010D MET

Associated Lab Samples: 2618160001, 2618160002, 2618160005, 2618160007, 2618160008

METHOD BLANK: 125502 Matrix: Water

Associated Lab Samples: 2618160001, 2618160002, 2618160005, 2618160007, 2618160008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Silicon	mg/L	ND	0.040	0.0040	05/10/19 02:21	

LABORATORY CONTROL SAMPLE: 125503

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Silicon	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 125504 125505

Parameter	Units	2618160001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Silicon	mg/L	5.0	1	1	5.8	6.1	81	105	75-125	4	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

QC Batch: 27900 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3005A Analysis Description: 6020B MET
 Associated Lab Samples: 2618160001, 2618160002, 2618160003, 2618160004, 2618160005, 2618160006, 2618160007, 2618160008

METHOD BLANK: 125551 Matrix: Water
 Associated Lab Samples: 2618160001, 2618160002, 2618160003, 2618160004, 2618160005, 2618160006, 2618160007, 2618160008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0039	05/09/19 21:09	
Calcium	mg/L	ND	0.50	0.014	05/09/19 21:09	
Cobalt	mg/L	ND	0.010	0.00052	05/09/19 21:09	
Magnesium	mg/L	0.012J	0.050	0.0062	05/09/19 21:09	
Molybdenum	mg/L	ND	0.010	0.0019	05/09/19 21:09	
Potassium	mg/L	ND	0.10	0.035	05/09/19 21:09	
Sodium	mg/L	0.16	0.10	0.015	05/09/19 21:09	

LABORATORY CONTROL SAMPLE: 125552

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	104	80-120	
Calcium	mg/L	1	1.0	103	80-120	
Cobalt	mg/L	0.1	0.11	106	80-120	
Magnesium	mg/L	1	1.1	110	80-120	
Molybdenum	mg/L	0.1	0.11	107	80-120	
Potassium	mg/L	1	1.1	113	80-120	
Sodium	mg/L	1	1.2	119	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 125553 125554

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2618160001 Result	Spike Conc.	Spike Conc.	Result						
Boron	mg/L	10.1	1	1	10.7	12.7	59	258	75-125	17	20 M1
Calcium	mg/L	647	1	1	547	564	-9990	-8280	75-125	3	20 M6
Cobalt	mg/L	0.023J	0.1	0.1	0.13	0.13	106	103	75-125	2	20
Magnesium	mg/L	84.0	1	1	81.0	85.3	-294	135	75-125	5	20 M6
Molybdenum	mg/L	0.043	0.1	0.1	0.14	0.14	101	101	75-125	1	20
Potassium	mg/L	13.6	1	1	14.8	13.2	121	-34	75-125	11	20 M1
Sodium	mg/L	39.0	1	1	39.2	40.1	19	113	75-125	2	20 M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

QC Batch: 27817

Analysis Method: SM 2320B

QC Batch Method: SM 2320B

Analysis Description: 2320B Alkalinity, Low Level

Associated Lab Samples: 2618160007, 2618160008

METHOD BLANK: 125304

Matrix: Water

Associated Lab Samples: 2618160007, 2618160008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	1.0	1.0	05/06/19 17:35	

LABORATORY CONTROL SAMPLE: 125305

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	50	49.5	99	85-115	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2618160

QC Batch: 27947 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2618160001, 2618160002, 2618160005, 2618160007, 2618160008

METHOD BLANK: 125764 Matrix: Water
Associated Lab Samples: 2618160001, 2618160002, 2618160005, 2618160007, 2618160008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.10J	0.25	0.024	05/08/19 22:59	
Fluoride	mg/L	ND	0.30	0.029	05/08/19 22:59	
Sulfate	mg/L	0.022J	1.0	0.017	05/08/19 22:59	

LABORATORY CONTROL SAMPLE: 125765

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.2	102	90-110	
Fluoride	mg/L	10	10.3	103	90-110	
Sulfate	mg/L	10	10	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 125766 125767

Parameter	Units	2618153001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	61.2	10	10	71.9	71.7	107	105	90-110	0	15	E
Fluoride	mg/L	0.75	10	10	10.2	10.2	94	94	90-110	0	15	
Sulfate	mg/L	2090J	10	10	722	722	-13700	-13700	90-110	0	15	E,M1

MATRIX SPIKE SAMPLE: 125768

Parameter	Units	2618153002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	72.2	10	78.9	68	90-110	E,M1
Fluoride	mg/L	2.9	10	12.1	93	90-110	
Sulfate	mg/L	1300	10	538	-7590	90-110	E,M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2618160

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.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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

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 Bowen Ash Pond
Pace Project No.: 2618160

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2618160001	BGWC-22	EPA 3010A	27891	EPA 6010D	27950
2618160002	BGWA-2	EPA 3010A	27891	EPA 6010D	27950
2618160005	BGWC-32	EPA 3010A	27891	EPA 6010D	27950
2618160007	FBL-050319	EPA 3010A	27891	EPA 6010D	27950
2618160008	EQBL-050319	EPA 3010A	27891	EPA 6010D	27950
2618160001	BGWC-22	EPA 3005A	27900	EPA 6020B	28014
2618160002	BGWA-2	EPA 3005A	27900	EPA 6020B	28014
2618160003	BGWC-38D	EPA 3005A	27900	EPA 6020B	28014
2618160004	BGWC-37D	EPA 3005A	27900	EPA 6020B	28014
2618160005	BGWC-32	EPA 3005A	27900	EPA 6020B	28014
2618160006	Dup-01	EPA 3005A	27900	EPA 6020B	28014
2618160007	FBL-050319	EPA 3005A	27900	EPA 6020B	28014
2618160008	EQBL-050319	EPA 3005A	27900	EPA 6020B	28014
2618160001	BGWC-22	SM 2320B	27709		
2618160002	BGWA-2	SM 2320B	27709		
2618160005	BGWC-32	SM 2320B	27709		
2618160007	FBL-050319	SM 2320B	27817		
2618160008	EQBL-050319	SM 2320B	27817		
2618160001	BGWC-22	EPA 300.0	27947		
2618160002	BGWA-2	EPA 300.0	27947		
2618160005	BGWC-32	EPA 300.0	27947		
2618160007	FBL-050319	EPA 300.0	27947		
2618160008	EQBL-050319	EPA 300.0	27947		

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Sample Condition Upon Receipt

WO#: 2618160

Client Name: GAPower CCR

PM: BM Due Date: 05/10/19
CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 082 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 5.5C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6C

Date and Initials of person examining contents: 5/3/19 CCR

Table with 16 rows and 3 columns. Columns: Question, Yes/No/N/A checkboxes, and a numerical index (1-16). Rows include Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot # (if purchased).

Client Notification/ Resolution: Field Data Required? Y / N
Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

July 10, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2620544

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on July 09, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2620544

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2620544

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2620544001	BGWA-33	Water	07/09/19 11:51	07/09/19 13:20

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond
Pace Project No.: 2620544

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2620544001	BGWA-33	EPA 6020B	KLH	2

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2620544

Sample: BGWA-33		Lab ID: 2620544001		Collected: 07/09/19 11:51	Received: 07/09/19 13:20	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							
Boron	0.027J	mg/L	0.040	0.0049	1	07/09/19 14:38	07/10/19 11:53	7440-42-8	
Molybdenum	0.034	mg/L	0.010	0.00095	1	07/09/19 14:38	07/10/19 11:53	7439-98-7	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2620544

QC Batch: 31548 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3005A Analysis Description: 6020B MET
 Associated Lab Samples: 2620544001

METHOD BLANK: 141738 Matrix: Water

Associated Lab Samples: 2620544001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0049	07/10/19 11:42	
Molybdenum	mg/L	ND	0.010	0.00095	07/10/19 11:42	

LABORATORY CONTROL SAMPLE: 141739

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.98	98	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 141740 141741

Parameter	Units	2620544001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.027J	1	1	0.99	0.94	97	92	75-125	5	20	
Molybdenum	mg/L	0.034	0.1	0.1	0.13	0.13	98	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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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2620544

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2620544

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2620544001	BGWA-33	EPA 3005A	31548	EPA 6020B	31551

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.

Page: 1 Of 1

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: Geosyntec	Attention:	Regulatory Agency:	
Address: 2480 Maner Road	Copy To: Atlanta, GA 30339	Purchase Order #: SCS10348606	Address:	State / Location: GA	
Email: jabraham@southemco.com	Project Name: Plant Bowen Ash Pond	Project #: 315	Pace Project Manager: belsy.mcdaniel@pacelabs.com	Pace Profile #:	
Phone: (404)506-7239	Requested Due Date:				

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	DATE	TIME	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	TEMP in C	Received on	Sealed	Custody	Cooler	Intact	
			START	END																		
1	BGWJA-33	WTG	7/19/19	1:20	7/19	1:20	7/19	13:20	7/19	13:20	2:1	7/19	13:20	2:1	Y	Y	Y	Y	Y	Y	Y	Y
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

ADDITIONAL COMMENTS: Metals 6020 B+Mo Only
*Rush Analysis

SAMPLER NAME AND SIGNATURE:
 PRINT Name of SAMPLER: Audrey Custon, Joe Booth
 SIGNATURE of SAMPLER: *Audrey Custon* DATE Signed: 7/19/19

WO# : 2620544

2620544



Sample Condition Upon Receipt

WO#: 2620544

PM: BM

Due Date: 07/10/19

CLIENT: GRPower-CCR

Client Name: GRPower

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

Cooler Temperature 2.1°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Optional
Proj. Due Date:
Proj. Name:

Date and Initials of person examining contents: <u>7/9/19/CRJ</u>

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. <u>24hr TAT</u>
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>082</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	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: _____

December 11, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623503

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 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 was revised 10/11/19 to remove compounds not requested on the COC.

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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623503

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

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond
Pace Project No.: 2623503

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623503001	BGWA-2	Water	09/23/19 09:54	09/24/19 15:23
2623503002	BGWA-29	Water	09/23/19 10:22	09/24/19 15:23
2623503003	BGWA-6	Water	09/23/19 11:34	09/24/19 15:23
2623503004	DUP-1	Water	09/23/19 00:00	09/24/19 15:23

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623503

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623503001	BGWA-2	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623503002	BGWA-29	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623503003	BGWA-6	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623503004	DUP-1	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	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 Bowen Ash Pond

Pace Project No.: 2623503

Sample: BGWA-2		Lab ID: 2623503001		Collected: 09/23/19 09:54		Received: 09/24/19 15:23		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								
Arsenic	0.00095J	mg/L	0.0050	0.00035	1	09/27/19 15:26	09/30/19 21:03	7440-38-2	B	
Barium	0.21	mg/L	0.010	0.00049	1	09/27/19 15:26	09/30/19 21:03	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	09/27/19 15:26	09/30/19 21:03	7440-41-7		
Boron	0.0069J	mg/L	0.040	0.0049	1	09/27/19 15:26	09/30/19 21:03	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	09/27/19 15:26	09/30/19 21:03	7440-43-9		
Calcium	36.3	mg/L	5.0	0.55	50	09/27/19 15:26	09/30/19 21:09	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	09/27/19 15:26	09/30/19 21:03	7440-47-3		
Cobalt	0.00047J	mg/L	0.0050	0.00030	1	09/27/19 15:26	09/30/19 21:03	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	09/27/19 15:26	09/30/19 21:03	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	09/27/19 15:26	09/30/19 21:03	7439-93-2		
Molybdenum	0.0017J	mg/L	0.010	0.00095	1	09/27/19 15:26	09/30/19 21:03	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	09/27/19 15:26	09/30/19 21:03	7782-49-2		
Thallium	0.00011J	mg/L	0.0010	0.000052	1	09/27/19 15:26	09/30/19 21:03	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/30/19 11:09	10/01/19 14:08	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	186	mg/L	10.0	10.0	1		09/26/19 18:04			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	3.1	mg/L	1.0	0.60	1		09/27/19 20:20	16887-00-6		
Fluoride	0.076J	mg/L	0.30	0.050	1		09/27/19 20:20	16984-48-8		
Sulfate	9.0	mg/L	1.0	0.50	1		09/27/19 20:20	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623503

Sample: BGWA-29		Lab ID: 2623503002		Collected: 09/23/19 10:22		Received: 09/24/19 15:23		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								
Arsenic	0.00053J	mg/L	0.0050	0.00035	1	09/27/19 15:26	09/30/19 21:15	7440-38-2	B	
Barium	0.016	mg/L	0.010	0.00049	1	09/27/19 15:26	09/30/19 21:15	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	09/27/19 15:26	09/30/19 21:15	7440-41-7		
Boron	0.0052J	mg/L	0.040	0.0049	1	09/27/19 15:26	09/30/19 21:15	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	09/27/19 15:26	09/30/19 21:15	7440-43-9		
Calcium	19.2	mg/L	5.0	0.55	50	09/27/19 15:26	09/30/19 21:20	7440-70-2		
Chromium	0.00047J	mg/L	0.010	0.00039	1	09/27/19 15:26	09/30/19 21:15	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	09/27/19 15:26	09/30/19 21:15	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	09/27/19 15:26	09/30/19 21:15	7439-92-1		
Lithium	0.00089J	mg/L	0.030	0.00078	1	09/27/19 15:26	09/30/19 21:15	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	09/27/19 15:26	09/30/19 21:15	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	09/27/19 15:26	09/30/19 21:15	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	09/27/19 15:26	09/30/19 21:15	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/30/19 11:09	10/01/19 14:11	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	122	mg/L	10.0	10.0	1		09/26/19 18:05			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	1.2	mg/L	1.0	0.60	1		09/27/19 20:35	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		09/27/19 20:35	16984-48-8		
Sulfate	6.6	mg/L	1.0	0.50	1		09/27/19 20:35	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623503

Sample: BGWA-6		Lab ID: 2623503003		Collected: 09/23/19 11:34		Received: 09/24/19 15:23		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								
Arsenic	0.0012J	mg/L	0.0050	0.00035	1	09/27/19 15:26	09/30/19 21:26	7440-38-2	B	
Barium	0.012	mg/L	0.010	0.00049	1	09/27/19 15:26	09/30/19 21:26	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	09/27/19 15:26	09/30/19 21:26	7440-41-7		
Boron	0.0099J	mg/L	0.040	0.0049	1	09/27/19 15:26	09/30/19 21:26	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	09/27/19 15:26	09/30/19 21:26	7440-43-9		
Calcium	57.9	mg/L	5.0	0.55	50	09/27/19 15:26	09/30/19 21:32	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	09/27/19 15:26	09/30/19 21:26	7440-47-3		
Cobalt	0.00042J	mg/L	0.0050	0.00030	1	09/27/19 15:26	09/30/19 21:26	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	09/27/19 15:26	09/30/19 21:26	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	09/27/19 15:26	09/30/19 21:26	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	09/27/19 15:26	09/30/19 21:26	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	09/27/19 15:26	09/30/19 21:26	7782-49-2		
Thallium	0.000060J	mg/L	0.0010	0.000052	1	09/27/19 15:26	09/30/19 21:26	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/30/19 11:09	10/01/19 14:13	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	296	mg/L	10.0	10.0	1		09/26/19 18:05			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	8.6	mg/L	1.0	0.60	1		09/27/19 21:04	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		09/27/19 21:04	16984-48-8		
Sulfate	27.5	mg/L	1.0	0.50	1		09/27/19 21:04	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623503

Sample: DUP-1		Lab ID: 2623503004		Collected: 09/23/19 00:00		Received: 09/24/19 15:23		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								
Arsenic	0.00051J	mg/L	0.0050	0.00035	1	09/27/19 15:26	10/01/19 10:29	7440-38-2	B	
Barium	0.017	mg/L	0.010	0.00049	1	09/27/19 15:26	10/01/19 10:29	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	09/27/19 15:26	10/01/19 10:29	7440-41-7		
Boron	0.0058J	mg/L	0.040	0.0049	1	09/27/19 15:26	10/01/19 10:29	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	09/27/19 15:26	10/01/19 10:29	7440-43-9		
Calcium	22.2	mg/L	5.0	0.55	50	09/27/19 15:26	10/01/19 10:34	7440-70-2		
Chromium	0.00042J	mg/L	0.010	0.00039	1	09/27/19 15:26	10/01/19 10:29	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	09/27/19 15:26	10/01/19 10:29	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	09/27/19 15:26	10/01/19 10:29	7439-92-1		
Lithium	0.00085J	mg/L	0.030	0.00078	1	09/27/19 15:26	10/01/19 10:29	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	09/27/19 15:26	10/01/19 10:29	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	09/27/19 15:26	10/01/19 10:29	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	09/27/19 15:26	10/01/19 10:29	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	09/30/19 11:09	10/01/19 14:20	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	124	mg/L	10.0	10.0	1		09/26/19 18:05			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	1.2	mg/L	1.0	0.60	1		09/27/19 20:49	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		09/27/19 20:49	16984-48-8		
Sulfate	6.6	mg/L	1.0	0.50	1		09/27/19 20:49	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623503

QC Batch: 36151

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2623503001, 2623503002, 2623503003, 2623503004

METHOD BLANK: 163277

Matrix: Water

Associated Lab Samples: 2623503001, 2623503002, 2623503003, 2623503004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/01/19 13:23	

LABORATORY CONTROL SAMPLE: 163278

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163279 163280

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		2623006001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Mercury	mg/L	ND	0.0025	0.0025	0.0016	0.0015	65	57	75-125	12	20	M1	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623503

QC Batch: 36079 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623503001, 2623503002, 2623503003, 2623503004

METHOD BLANK: 162814 Matrix: Water
Associated Lab Samples: 2623503001, 2623503002, 2623503003, 2623503004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	0.00043J	0.0050	0.00035	09/30/19 19:37	
Barium	mg/L	ND	0.010	0.00049	09/30/19 19:37	
Beryllium	mg/L	ND	0.0030	0.000074	09/30/19 19:37	
Boron	mg/L	ND	0.040	0.0049	09/30/19 19:37	
Cadmium	mg/L	ND	0.0025	0.00011	09/30/19 19:37	
Calcium	mg/L	ND	0.10	0.011	09/30/19 19:37	
Chromium	mg/L	ND	0.010	0.00039	09/30/19 19:37	
Cobalt	mg/L	ND	0.0050	0.00030	09/30/19 19:37	
Lead	mg/L	ND	0.0050	0.000046	09/30/19 19:37	
Lithium	mg/L	ND	0.030	0.00078	09/30/19 19:37	
Molybdenum	mg/L	ND	0.010	0.00095	09/30/19 19:37	
Selenium	mg/L	ND	0.010	0.0013	09/30/19 19:37	
Thallium	mg/L	ND	0.0010	0.000052	09/30/19 19:37	

LABORATORY CONTROL SAMPLE: 162815

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.11	106	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	103	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Calcium	mg/L	1	1.0	101	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.11	106	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.11	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162816 162817

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623500001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Arsenic	mg/L	0.00046J	0.1	0.1	0.10	0.10	103	100	75-125	3	20	
Barium	mg/L	0.042	0.1	0.1	0.15	0.15	110	106	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.094	98	94	75-125	4	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623503

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 162816		162817		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2623500001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Boron	mg/L	0.021J	1	1	1.0	0.99	99	97	75-125	2	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	3	20		
Calcium	mg/L	118	1	1	116	129	-296	1090	75-125	11	20	M6	
Chromium	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	3	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	3	20		
Lead	mg/L	0.000078J	0.1	0.1	0.10	0.10	104	101	75-125	3	20		
Lithium	mg/L	0.0011J	0.1	0.1	0.10	0.098	102	97	75-125	4	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	108	102	75-125	6	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.11	0.10	105	101	75-125	4	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623503

QC Batch: 36029

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 2623503001, 2623503002, 2623503003, 2623503004

LABORATORY CONTROL SAMPLE: 162444

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	393	98	84-108	

SAMPLE DUPLICATE: 162445

Parameter	Units	2623494001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	222	248	11	10	D6

SAMPLE DUPLICATE: 162446

Parameter	Units	2623553001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	D6

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623503

QC Batch: 500244 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: 2623503001, 2623503002, 2623503003, 2623503004

METHOD BLANK: 2691483 Matrix: Water
Associated Lab Samples: 2623503001, 2623503002, 2623503003, 2623503004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/27/19 16:24	
Fluoride	mg/L	ND	0.10	0.050	09/27/19 16:24	
Sulfate	mg/L	ND	1.0	0.50	09/27/19 16:24	

LABORATORY CONTROL SAMPLE: 2691484

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.9	102	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	52.1	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2691487 2691488

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92447237002	Spike Conc.	MSD Spike Conc.	MSD Result								
Chloride	mg/L	16.9	50	50	69.7	69.4	105	105	90-110	0	10		
Fluoride	mg/L	ND	2.5	2.5	2.8	2.7	110	108	90-110	2	10		
Sulfate	mg/L	91.9	50	50	139	139	94	95	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2691489 2691490

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92447233001	Spike Conc.	MSD Spike Conc.	MSD Result								
Chloride	mg/L	7.9	50	50	60.5	60.9	105	106	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	3.0	3.1	120	125	90-110	4	10	M1	
Sulfate	mg/L	36.6	50	50	90.2	90.3	107	107	90-110	0	10		

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623503

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

B Analyte was detected in the associated method blank.

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.

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 Bowen Ash Pond
Pace Project No.: 2623503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623503001	BGWA-2	EPA 3005A	36079	EPA 6020B	36104
2623503002	BGWA-29	EPA 3005A	36079	EPA 6020B	36104
2623503003	BGWA-6	EPA 3005A	36079	EPA 6020B	36104
2623503004	DUP-1	EPA 3005A	36079	EPA 6020B	36104
2623503001	BGWA-2	EPA 7470A	36151	EPA 7470A	36188
2623503002	BGWA-29	EPA 7470A	36151	EPA 7470A	36188
2623503003	BGWA-6	EPA 7470A	36151	EPA 7470A	36188
2623503004	DUP-1	EPA 7470A	36151	EPA 7470A	36188
2623503001	BGWA-2	SM 2540C	36029		
2623503002	BGWA-29	SM 2540C	36029		
2623503003	BGWA-6	SM 2540C	36029		
2623503004	DUP-1	SM 2540C	36029		
2623503001	BGWA-2	EPA 300.0 Rev 2.1 1993	500244		
2623503002	BGWA-29	EPA 300.0 Rev 2.1 1993	500244		
2623503003	BGWA-6	EPA 300.0 Rev 2.1 1993	500244		
2623503004	DUP-1	EPA 300.0 Rev 2.1 1993	500244		

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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.

Page: 1 of 1	
Section A	
Required Client Information:	
Company:	Georgia Power - Coal Combustion Residuals
Address:	2450 Mamer Road Atlanta, GA 30339
Email:	jabraham@seethermo.com
Phone:	(404)506-7239
Requested Due Date:	
Section B	
Required Project Information:	
Report To:	Johi Abraham
Copy To:	Geosyntec
Purchase Order #:	SCS1032775
Project Name:	Plant Bowen Additional Parameters
Project #:	Ash Pond
Section C	
Invoice Information:	
Attention:	
Company Name:	
Address:	
State / Location:	GA
Regulatory Agency:	
State / Location:	GA

ITEM #	MATRIX	MATRIX CODE (see vial codes to left)	COLLECTED		SAMPLE TYPE (R=Grab C=Comp)	METHANOL	NACH	HCl	HNO3	H2SO4	# OF CONTAINERS	PRESERVATIVES	ANALYSES TEST					RESIDUAL CHLORINE (Y/N)	
			START DATE	END DATE									Y/N	TDs, Cl, F, SO4	Metals 6020 App. III	Metals 60207470 App. IV	Radium 226, 228		Other
1	BGWA - 2	WTG	9/23/19	0954	G						4		X	X	X	X			
2	BGWA - 29	WTG	9/23/19	1022	G						6		X	X	X	X			
3	BGWA - 6	WTG	9/23/19	1134	G						4		X	X	X	X			
4	DWR - 1	WTG	9/23/19		G						4		X	X	X	X			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Relinquished by / Affiliation: *Audrey Crafton*
 Date: *9/23/19*

Accepted by / Affiliation: *Charles Gant*
 Date: *9/24/19*

Sample Conditions:
 Temp in C: *20.8*
 Y/N: *Y*

Sampler Name and Signature:
 Print Name of Sampler: *Audrey Crafton*
 Signature of Sampler: *Audrey Crafton*
 Date Signed: *9/23/19*

WO#: 2623503



2623503

Sample Condition Upon Receipt

WO#: 2623503



Client Name: GAPower CCR

PM: BM Due Date: 10/01/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Proj. Due Date: _____
Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 214 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 218C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/24/19 CCR

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 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 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 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 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 16, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623505

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623505

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 Bowen Ash Pond

Pace Project No.: 2623505

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623505001	BGWA-2	Water	09/23/19 09:54	09/24/19 15:23
2623505002	BGWA-29	Water	09/23/19 10:22	09/24/19 15:23
2623505003	BGWA-6	Water	09/23/19 11:34	09/24/19 15:23
2623505004	DUP-1	Water	09/23/19 00:00	09/24/19 15:23

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623505

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623505001	BGWA-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623505002	BGWA-29	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623505003	BGWA-6	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623505004	DUP-1	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 Bowen Ash Pond

Pace Project No.: 2623505

Sample: BGWA-2 **Lab ID: 2623505001** Collected: 09/23/19 09:54 Received: 09/24/19 15:23 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.21 ± 0.253 (0.137) C:95% T:NA	pCi/L	10/04/19 18:29	13982-63-3	
Radium-228	EPA 9320	0.611 ± 0.382 (0.713) C:71% T:90%	pCi/L	10/10/19 11:40	15262-20-1	
Total Radium	Total Radium Calculation	1.82 ± 0.635 (0.850)	pCi/L	10/11/19 13:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623505

Sample: BGWA-29 **Lab ID: 2623505002** Collected: 09/23/19 10:22 Received: 09/24/19 15:23 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.405 ± 0.147 (0.187) C:90% T:NA	pCi/L	10/04/19 18:29	13982-63-3	
Radium-228	EPA 9320	0.847 ± 0.447 (0.787) C:70% T:81%	pCi/L	10/10/19 11:41	15262-20-1	
Total Radium	Total Radium Calculation	1.25 ± 0.594 (0.974)	pCi/L	10/11/19 13:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623505

Sample: BGWA-6 **Lab ID: 2623505003** Collected: 09/23/19 11:34 Received: 09/24/19 15:23 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.571 ± 0.170 (0.166) C:83% T:NA	pCi/L	10/04/19 18:31	13982-63-3	
Radium-228	EPA 9320	0.562 ± 0.362 (0.671) C:67% T:89%	pCi/L	10/10/19 11:41	15262-20-1	
Total Radium	Total Radium Calculation	1.13 ± 0.532 (0.837)	pCi/L	10/11/19 13:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623505

Sample: DUP-1 **Lab ID: 2623505004** Collected: 09/23/19 00:00 Received: 09/24/19 15:23 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.317 ± 0.124 (0.155) C:90% T:NA	pCi/L	10/04/19 18:29	13982-63-3	
Radium-228	EPA 9320	0.604 ± 0.391 (0.734) C:70% T:86%	pCi/L	10/10/19 11:40	15262-20-1	
Total Radium	Total Radium Calculation	0.921 ± 0.515 (0.889)	pCi/L	10/11/19 13:44	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623505

QC Batch:	364056	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2623505001, 2623505002, 2623505003, 2623505004		

METHOD BLANK:	1765890	Matrix:	Water
Associated Lab Samples:	2623505001, 2623505002, 2623505003, 2623505004		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.797 ± 0.453 (0.815) C:59% T:88%	pCi/L	10/10/19 11:37	

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 Bowen Ash Pond

Pace Project No.: 2623505

QC Batch:	364054	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2623505001, 2623505002, 2623505003, 2623505004		

METHOD BLANK:	1765885	Matrix:	Water
Associated Lab Samples:	2623505001, 2623505002, 2623505003, 2623505004		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.324 ± 0.128 (0.168) C:91% T:NA	pCi/L	10/04/19 18:52	

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.

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QUALIFIERS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623505

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond
Pace Project No.: 2623505

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623505001	BGWA-2	EPA 9315	364054		
2623505002	BGWA-29	EPA 9315	364054		
2623505003	BGWA-6	EPA 9315	364054		
2623505004	DUP-1	EPA 9315	364054		
2623505001	BGWA-2	EPA 9320	364056		
2623505002	BGWA-29	EPA 9320	364056		
2623505003	BGWA-6	EPA 9320	364056		
2623505004	DUP-1	EPA 9320	364056		
2623505001	BGWA-2	Total Radium Calculation	365798		
2623505002	BGWA-29	Total Radium Calculation	365798		
2623505003	BGWA-6	Total Radium Calculation	365798		
2623505004	DUP-1	Total Radium Calculation	365798		

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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 Attention: scsinvoices@southernco.com
Address: 2480 Maner Road Copy To: Wood-Environmental-GeoSyntec Company Name:
Atlanta, GA 30339 Purchase Order #: SCS10382775 Address:
Email: jabraham@southernco.com Project Name: Plant Bowen-Gee-Slate-Lin-Ashford Pace Order:
Phone: (404)506-7239 Requested Due Date: Pace Project Manager: bolsy.mcdaniel@pacelabs.com.
Fac: Project #: Pace Profile #: 317.5

Regulatory Agency: State / Location: GA

Page: 1 of 1

ITEM #	MATRIX CODE (see valid codes to left)	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES											Analytes Test Y/N	Requested Analysis Filtered (Y/N)	TEMP In C	Received on	Isb (Y/N)	Custody (Y/N)	Sealed (Y/N)	Samples (Y/N)		
			START DATE	END DATE			Preservatives																				
							H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	TDS, Cl, F, SO4	Metals 6020/470 - Ar III	Pb	MNA									DOC	Residual Chlorine (Y/N)
1	WTG	BGWA-2	9/12/19	0954	71	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2	WTG	BGWA-29	9/12/19	1022	71	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	2
3	WTG	BGWA-6	9/12/19	1134	71	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	3
4	WTG	DUR-1	9/23/19		71	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	4
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

NO#: 2623505



RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
JANNA CARABINI	9/12/19	5:00	Cindy Manda	9/23	5:00	
Cindy Manda	9/12/19	1346	I Pace	9/24	1346	
I Pace	9/24/19	1523	Charles Hunte	9/24/19	1523	X

SAMPLER NAME AND SIGNATURE
PRINT NAME OF SAMPLER: Audrey Crafton **DATE SIGNED:** 9/23/19
SIGNATURE OF SAMPLER:

ADDITIONAL COMMENTS:
Appt # IV Metals (As, Ba, Be, Ca, Cd, Pb, Cr, Co, Cu, Fe, Ni, Mn, Se, Ti, Zn)
Cr, Co, F, Pb, Li, Hg, Mo, Se, Ti, Ba)
* See Betsy McDaniel for complete parameter list



Sample Condition Upon Receipt

WO#: 2623505

Client Name: GAPower CCR

PM: BM

Due Date: 10/22/19

CLIENT: GAPower-CCR

Courier: [] Fed Ex [] UPS [] USPS [] Client [] Commercial [x] Pace Other _____
Tracking #: _____

Operator: _____
Proj. Due Date: _____
Proj. Name: _____

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

Packing Material: [x] Bubble Wrap [x] Bubble Bags [] None [] Other _____

Thermometer Used 214 Type of Ice: (Wet) Blue None [] Samples on ice, cooling process has begun

Cooler Temperature 218C

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 9/24/19 [initials]

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	[x] Yes [] No [] N/A	1.
Chain of Custody Filled Out:	[x] Yes [] No [] N/A	2.
Chain of Custody Relinquished:	[x] Yes [] No [] N/A	3.
Sampler Name & Signature on COC:	[x] Yes [] No [] N/A	4.
Samples Arrived within Hold Time:	[x] Yes [] No [] N/A	5.
Short Hold Time Analysis (<72hr):	[] Yes [x] No [] N/A	6.
Rush Turn Around Time Requested:	[] Yes [x] No [] N/A	7.
Sufficient Volume:	[x] Yes [] No [] N/A	8.
Correct Containers Used:	[x] Yes [] No [] N/A	9.
-Pace Containers Used:	[x] Yes [] No [] N/A	
Containers Intact:	[x] Yes [] No [] N/A	10.
Filtered volume received for Dissolved tests	[] Yes [] No [] N/A	11.
Sample Labels match COC:	[] Yes [x] No [] N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	[x] Yes [] No [] N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	[x] Yes [] No [] N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	[] Yes [x] No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	[] Yes [] No [x] N/A	14.
Headspace in VOA Vials (>6mm):	[] Yes [] No [x] N/A	15.
Trip Blank Present:	[] Yes [] No [x] N/A	16.
Trip Blank Custody Seals Present	[] Yes [] No [x] 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 11, 2019

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

RE: Project: Plant Bowen
Pace Project No.: 2623696

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen

Pace Project No.: 2623696

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 Bowen
Pace Project No.: 2623696

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623696001	BGWC-22	Water	09/27/19 10:06	09/27/19 16:00
2623696002	BGWC-23	Water	09/27/19 11:45	09/27/19 16:00
2623696003	BGWC-30	Water	09/27/19 09:45	09/27/19 16:00
2623696004	BGWC-36D	Water	09/27/19 12:02	09/27/19 16:00
2623696005	BGWA-33	Water	09/27/19 13:08	09/27/19 16:00

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SAMPLE ANALYTE COUNT

Project: Plant Bowen

Pace Project No.: 2623696

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623696001	BGWC-22	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623696002	BGWC-23	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623696003	BGWC-30	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623696004	BGWC-36D	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623696005	BGWA-33	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623696

Sample: BGWC-22 Lab ID: 2623696001 Collected: 09/27/19 10:06 Received: 09/27/19 16:00 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									
Arsenic	0.0013J	mg/L	0.0050	0.00035	1	09/30/19 13:30	10/03/19 17:05	7440-38-2	
Barium	0.095	mg/L	0.010	0.00049	1	09/30/19 13:30	10/03/19 17:05	7440-39-3	M1
Beryllium	0.000099J	mg/L	0.0030	0.000074	1	09/30/19 13:30	10/03/19 17:05	7440-41-7	
Boron	16.4	mg/L	10.0	1.2	250	09/30/19 13:30	10/04/19 15:21	7440-42-8	M6
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 13:30	10/03/19 17:05	7440-43-9	
Calcium	658	mg/L	25.0	2.7	250	09/30/19 13:30	10/04/19 15:21	7440-70-2	M6
Chromium	ND	mg/L	0.010	0.00039	1	09/30/19 13:30	10/03/19 17:05	7440-47-3	
Cobalt	0.027	mg/L	0.0050	0.00030	1	09/30/19 13:30	10/03/19 17:05	7440-48-4	
Lead	0.000054J	mg/L	0.0050	0.000046	1	09/30/19 13:30	10/03/19 17:05	7439-92-1	
Lithium	0.039	mg/L	0.030	0.00078	1	09/30/19 13:30	10/03/19 17:05	7439-93-2	
Molybdenum	0.045	mg/L	0.010	0.00095	1	09/30/19 13:30	10/03/19 17:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/30/19 13:30	10/03/19 17:05	7782-49-2	
Thallium	0.00088J	mg/L	0.0010	0.000052	1	09/30/19 13:30	10/03/19 17:05	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:10	10/04/19 10:51	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	3260	mg/L	10.0	10.0	1		10/03/19 20:29		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	996	mg/L	50.0	1.2	50		10/01/19 05:14	16887-00-6	
Fluoride	1.0	mg/L	0.30	0.029	1		09/30/19 21:17	16984-48-8	
Sulfate	905	mg/L	50.0	0.85	50		10/01/19 05:14	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen

Pace Project No.: 2623696

Sample: BGWC-23		Lab ID: 2623696002		Collected: 09/27/19 11:45		Received: 09/27/19 16:00		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								
Arsenic	0.00096J	mg/L	0.0050	0.00035	1	09/30/19 13:30	10/03/19 18:03	7440-38-2		
Barium	0.11	mg/L	0.010	0.00049	1	09/30/19 13:30	10/03/19 18:03	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 13:30	10/03/19 18:03	7440-41-7		
Boron	12.0	mg/L	10.0	1.2	250	09/30/19 13:30	10/04/19 15:38	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 13:30	10/03/19 18:03	7440-43-9		
Calcium	533	mg/L	25.0	2.7	250	09/30/19 13:30	10/04/19 15:38	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	09/30/19 13:30	10/03/19 18:03	7440-47-3		
Cobalt	0.00034J	mg/L	0.0050	0.00030	1	09/30/19 13:30	10/03/19 18:03	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	09/30/19 13:30	10/03/19 18:03	7439-92-1		
Lithium	0.024J	mg/L	0.030	0.00078	1	09/30/19 13:30	10/03/19 18:03	7439-93-2		
Molybdenum	0.012	mg/L	0.010	0.00095	1	09/30/19 13:30	10/03/19 18:03	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	09/30/19 13:30	10/03/19 18:03	7782-49-2		
Thallium	0.00018J	mg/L	0.0010	0.000052	1	09/30/19 13:30	10/03/19 18:03	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:10	10/04/19 11:01	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	2540	mg/L	10.0	10.0	1		10/03/19 20:29			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	918	mg/L	50.0	1.2	50		10/01/19 05:35	16887-00-6		
Fluoride	0.54	mg/L	0.30	0.029	1		09/30/19 21:38	16984-48-8		
Sulfate	721	mg/L	50.0	0.85	50		10/01/19 05:35	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623696

Sample: BGWC-30		Lab ID: 2623696003		Collected: 09/27/19 09:45		Received: 09/27/19 16:00		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								
Arsenic	0.00042J	mg/L	0.0050	0.00035	1	09/30/19 13:30	10/03/19 18:14	7440-38-2		
Barium	0.080	mg/L	0.010	0.00049	1	09/30/19 13:30	10/03/19 18:14	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 13:30	10/03/19 18:14	7440-41-7		
Boron	2.4	mg/L	0.40	0.049	10	09/30/19 13:30	10/04/19 15:44	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 13:30	10/03/19 18:14	7440-43-9		
Calcium	103	mg/L	5.0	0.55	50	09/30/19 13:30	10/03/19 18:20	7440-70-2		
Chromium	0.00056J	mg/L	0.010	0.00039	1	09/30/19 13:30	10/03/19 18:14	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	09/30/19 13:30	10/03/19 18:14	7440-48-4		
Lead	0.00018J	mg/L	0.0050	0.000046	1	09/30/19 13:30	10/03/19 18:14	7439-92-1		
Lithium	0.0012J	mg/L	0.030	0.00078	1	09/30/19 13:30	10/03/19 18:14	7439-93-2		
Molybdenum	0.0036J	mg/L	0.010	0.00095	1	09/30/19 13:30	10/03/19 18:14	7439-98-7		
Selenium	0.0033J	mg/L	0.010	0.0013	1	09/30/19 13:30	10/03/19 18:14	7782-49-2		
Thallium	0.00014J	mg/L	0.0010	0.000052	1	09/30/19 13:30	10/03/19 18:14	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:10	10/04/19 11:03	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	629	mg/L	11.1	11.1	1		10/03/19 20:29			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	143	mg/L	20.0	0.48	20		10/01/19 05:55	16887-00-6		
Fluoride	0.13J	mg/L	0.30	0.029	1		09/30/19 21:59	16984-48-8		
Sulfate	51.7	mg/L	20.0	0.34	20		10/01/19 05:55	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623696

Sample: BGWC-36D Lab ID: 2623696004 Collected: 09/27/19 12:02 Received: 09/27/19 16:00 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									
Arsenic	0.00064J	mg/L	0.0050	0.00035	1	09/30/19 13:30	10/03/19 18:25	7440-38-2	
Barium	0.084	mg/L	0.010	0.00049	1	09/30/19 13:30	10/03/19 18:25	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 13:30	10/03/19 18:25	7440-41-7	
Boron	6.8	mg/L	0.40	0.049	10	09/30/19 13:30	10/04/19 15:50	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 13:30	10/03/19 18:25	7440-43-9	
Calcium	184	mg/L	5.0	0.55	50	09/30/19 13:30	10/03/19 18:31	7440-70-2	
Chromium	0.00060J	mg/L	0.010	0.00039	1	09/30/19 13:30	10/03/19 18:25	7440-47-3	
Cobalt	0.00090J	mg/L	0.0050	0.00030	1	09/30/19 13:30	10/03/19 18:25	7440-48-4	
Lead	0.00050J	mg/L	0.0050	0.000046	1	09/30/19 13:30	10/03/19 18:25	7439-92-1	
Lithium	0.0028J	mg/L	0.030	0.00078	1	09/30/19 13:30	10/03/19 18:25	7439-93-2	
Molybdenum	0.013	mg/L	0.010	0.00095	1	09/30/19 13:30	10/03/19 18:25	7439-98-7	
Selenium	0.0071J	mg/L	0.010	0.0013	1	09/30/19 13:30	10/03/19 18:25	7782-49-2	
Thallium	0.00037J	mg/L	0.0010	0.000052	1	09/30/19 13:30	10/03/19 18:25	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:10	10/04/19 11:05	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	1030	mg/L	10.0	10.0	1		10/03/19 20:29		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	357	mg/L	10.0	0.24	10		10/01/19 06:16	16887-00-6	
Fluoride	0.26J	mg/L	0.30	0.029	1		09/30/19 22:20	16984-48-8	
Sulfate	191	mg/L	10.0	0.17	10		10/01/19 06:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623696

Sample: BGWA-33		Lab ID: 2623696005		Collected: 09/27/19 13:08		Received: 09/27/19 16:00		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								
Arsenic	0.0023J	mg/L	0.0050	0.00035	1	09/30/19 13:30	10/03/19 18:37	7440-38-2		
Barium	0.035	mg/L	0.010	0.00049	1	09/30/19 13:30	10/03/19 18:37	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	09/30/19 13:30	10/03/19 18:37	7440-41-7		
Boron	0.033J	mg/L	0.040	0.0049	1	09/30/19 13:30	10/03/19 18:37	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	09/30/19 13:30	10/03/19 18:37	7440-43-9		
Calcium	41.2	mg/L	5.0	0.55	50	09/30/19 13:30	10/03/19 18:43	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	09/30/19 13:30	10/03/19 18:37	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	09/30/19 13:30	10/03/19 18:37	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	09/30/19 13:30	10/03/19 18:37	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	09/30/19 13:30	10/03/19 18:37	7439-93-2		
Molybdenum	0.019	mg/L	0.010	0.00095	1	09/30/19 13:30	10/03/19 18:37	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	09/30/19 13:30	10/03/19 18:37	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	09/30/19 13:30	10/03/19 18:37	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:10	10/04/19 11:12	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	275	mg/L	10.0	10.0	1		10/03/19 20:30			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	394	mg/L	20.0	0.48	20		10/01/19 15:49	16887-00-6		
Fluoride	0.33	mg/L	0.30	0.029	1		10/01/19 00:03	16984-48-8		
Sulfate	200	mg/L	20.0	0.34	20		10/01/19 15:49	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623696

QC Batch: 36428 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2623696001, 2623696002, 2623696003, 2623696004, 2623696005

METHOD BLANK: 164509 Matrix: Water
Associated Lab Samples: 2623696001, 2623696002, 2623696003, 2623696004, 2623696005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/04/19 10:46	

LABORATORY CONTROL SAMPLE: 164510

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164511 164512

Parameter	Units	2623696001 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	0.0022	0.0022	88	88	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623696

QC Batch: 36173 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623696001, 2623696002, 2623696003, 2623696004, 2623696005

METHOD BLANK: 163347 Matrix: Water
Associated Lab Samples: 2623696001, 2623696002, 2623696003, 2623696004, 2623696005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00035	10/03/19 16:32	
Barium	mg/L	ND	0.010	0.00049	10/03/19 16:32	
Beryllium	mg/L	ND	0.0030	0.000074	10/03/19 16:32	
Boron	mg/L	ND	0.040	0.0049	10/03/19 16:32	
Cadmium	mg/L	ND	0.0025	0.00011	10/03/19 16:32	
Calcium	mg/L	ND	0.10	0.011	10/03/19 16:32	
Chromium	mg/L	ND	0.010	0.00039	10/03/19 16:32	
Cobalt	mg/L	ND	0.0050	0.00030	10/03/19 16:32	
Lead	mg/L	ND	0.0050	0.000046	10/03/19 16:32	
Lithium	mg/L	ND	0.030	0.00078	10/03/19 16:32	
Molybdenum	mg/L	ND	0.010	0.00095	10/03/19 16:32	
Selenium	mg/L	ND	0.010	0.0013	10/03/19 16:32	
Thallium	mg/L	ND	0.0010	0.000052	10/03/19 16:32	

LABORATORY CONTROL SAMPLE: 163348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Calcium	mg/L	1	0.99	99	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	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	102	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: 163349 163350

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623696001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Arsenic	mg/L	0.0013J	0.1	0.1	0.099	0.10	98	103	75-125	5	20	
Barium	mg/L	0.095	0.1	0.1	0.22	0.22	122	127	75-125	2	20	M1
Beryllium	mg/L	0.000099J	0.1	0.1	0.086	0.091	86	91	75-125	5	20	

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623696

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163349		163350		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623696001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Boron	mg/L	16.4	1	1	20.1	20.1	373	367	75-125	0	20	M6	
Cadmium	mg/L	ND	0.1	0.1	0.090	0.093	90	93	75-125	3	20		
Calcium	mg/L	658	1	1	644	642	-1420	-1570	75-125	0	20	M6	
Chromium	mg/L	ND	0.1	0.1	0.091	0.094	91	94	75-125	3	20		
Cobalt	mg/L	0.027	0.1	0.1	0.12	0.12	89	92	75-125	3	20		
Lead	mg/L	0.000054J	0.1	0.1	0.089	0.094	89	94	75-125	5	20		
Lithium	mg/L	0.039	0.1	0.1	0.13	0.13	90	94	75-125	3	20		
Molybdenum	mg/L	0.045	0.1	0.1	0.14	0.15	96	102	75-125	4	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.11	97	105	75-125	8	20		
Thallium	mg/L	0.00088J	0.1	0.1	0.091	0.097	90	96	75-125	6	20		

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623696

QC Batch: 36185 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623696001, 2623696002, 2623696003, 2623696004, 2623696005

METHOD BLANK: 163390 Matrix: Water
Associated Lab Samples: 2623696001, 2623696002, 2623696003, 2623696004, 2623696005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.033J	1.0	0.024	09/30/19 18:32	
Fluoride	mg/L	ND	0.30	0.029	09/30/19 18:32	
Sulfate	mg/L	ND	1.0	0.017	09/30/19 18:32	

LABORATORY CONTROL SAMPLE: 163391

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.7	107	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 163392 163393

Parameter	Units	2623317001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	46.0	20	20	61.9	61.6	79	78	90-110	0	15	M1
Fluoride	mg/L	0.94	20	20	21.7	22.3	104	107	90-110	3	15	

MATRIX SPIKE SAMPLE: 163394

Parameter	Units	2623567003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	83.8	100	181	97	90-110	
Fluoride	mg/L	0.18J	100	101	101	90-110	
Sulfate	mg/L	154	100	242	88	90-110 M6	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen

Pace Project No.: 2623696

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

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

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 Bowen
Pace Project No.: 2623696

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623696001	BGWC-22	EPA 3005A	36173	EPA 6020B	36203
2623696002	BGWC-23	EPA 3005A	36173	EPA 6020B	36203
2623696003	BGWC-30	EPA 3005A	36173	EPA 6020B	36203
2623696004	BGWC-36D	EPA 3005A	36173	EPA 6020B	36203
2623696005	BGWA-33	EPA 3005A	36173	EPA 6020B	36203
2623696001	BGWC-22	EPA 7470A	36428	EPA 7470A	36481
2623696002	BGWC-23	EPA 7470A	36428	EPA 7470A	36481
2623696003	BGWC-30	EPA 7470A	36428	EPA 7470A	36481
2623696004	BGWC-36D	EPA 7470A	36428	EPA 7470A	36481
2623696005	BGWA-33	EPA 7470A	36428	EPA 7470A	36481
2623696001	BGWC-22	SM 2540C	36464		
2623696002	BGWC-23	SM 2540C	36464		
2623696003	BGWC-30	SM 2540C	36464		
2623696004	BGWC-36D	SM 2540C	36464		
2623696005	BGWA-33	SM 2540C	36464		
2623696001	BGWC-22	EPA 300.0	36185		
2623696002	BGWC-23	EPA 300.0	36185		
2623696003	BGWC-30	EPA 300.0	36185		
2623696004	BGWC-36D	EPA 300.0	36185		
2623696005	BGWA-33	EPA 300.0	36185		

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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:	Jeju Abraham	Attention:	
Address:	2480 Maner Road Atlanta, GA 30339	Copy To:	Geosync	Company Name:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Address:	
Phone:	(404)506-7239	Project Name:	Plant Bowen Additional Parameters	Pace Quoto:	
Requested Duo Date:		Fax:		Pace Project Manager:	betsy.mcdaniel@paccolabs.com
				Pace Profile #:	3155
				Regulatory Agency:	
				State / Location:	GA

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# ITEM	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see void codes to left)	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					Other	TDS, Cl, F, SO4	Metals 6020 App. III	Metals 6020/7470 App. IV	Radium 226, 228						
																									DATE	TIME	DATE	TIME		
1	Drying Meter	DW	9/27/19	10:06	G	WT		4																						
2	Water	WT	9/27/19	11:45	G	WT		4																						
3	Water	WW	9/27/19	09:45	G	WT		4																						
4	Water Product	P	9/27/19	12:02	G	WT		4																						
5	Softsolid	SL	9/27/19	13:08	G	WT		3																						
6	Oil	OL																												
7	Wipe	WP																												
8	Air	AR																												
9	Other	OT																												
10	Tissue	TS																												
11																														
12																														

WO#: 2623696

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App IV parameters As, Ba, Be, Cd, Cr, Hg, Li, Mo, Pb, Se, Ti Only	Audrey Crawford	9/27/19	16:00	Charles Hunt	9/27/19	16:00	Received on Ice (Y/N) / Custody Sealed (Y/N) / Color (Y/N) / Samples Intact (Y/N)
							TEMP In C / 2.5 / Y / Y / Y / Y

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Audrey Crawford, Jr. Booth
 SIGNATURE of SAMPLER:
 DATE Signed: 9/27/19



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: **2623696**

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 89

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 2.5

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 9/27/19 [initials]

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 29, 2019

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

RE: Project: Plant Bowen
Pace Project No.: 2623697

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen

Pace Project No.: 2623697

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 Bowen
Pace Project No.: 2623697

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623697001	BGWC-22	Water	09/27/19 10:06	09/27/19 16:00
2623697002	BGWC-23	Water	09/27/19 11:45	09/27/19 16:00
2623697003	BGWC-30	Water	09/27/19 09:45	09/27/19 16:00
2623697004	BGWC-36D	Water	09/27/19 12:02	09/27/19 16:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen

Pace Project No.: 2623697

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623697001	BGWC-22	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623697002	BGWC-23	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623697003	BGWC-30	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623697004	BGWC-36D	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 Bowen

Pace Project No.: 2623697

Sample: BGWC-22 **Lab ID: 2623697001** Collected: 09/27/19 10:06 Received: 09/27/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.08 ± 0.600 (0.429) C:89% T:NA	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	0.746 ± 0.678 (1.38) C:61% T:80%	pCi/L	10/22/19 15:19	15262-20-1	
Total Radium	Total Radium Calculation	2.83 ± 1.28 (1.81)	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen

Pace Project No.: 2623697

Sample: BGWC-23 **Lab ID: 2623697002** Collected: 09/27/19 11:45 Received: 09/27/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.01 ± 0.390 (0.375) C:92% T:NA	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	1.27 ± 0.613 (1.03) C:51% T:80%	pCi/L	10/22/19 16:00	15262-20-1	
Total Radium	Total Radium Calculation	2.28 ± 1.00 (1.41)	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen

Pace Project No.: 2623697

Sample: BGWC-30 **Lab ID: 2623697003** Collected: 09/27/19 09:45 Received: 09/27/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.694 ± 0.335 (0.427) C:88% T:NA	pCi/L	10/18/19 08:27	13982-63-3	
Radium-228	EPA 9320	0.533 ± 0.639 (1.36) C:53% T:88%	pCi/L	10/22/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.23 ± 0.974 (1.79)	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen

Pace Project No.: 2623697

Sample: BGWC-36D **Lab ID: 2623697004** Collected: 09/27/19 12:02 Received: 09/27/19 16:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.742 ± 0.339 (0.391) C:92% T:NA	pCi/L	10/18/19 09:24	13982-63-3	
Radium-228	EPA 9320	0.919 ± 0.644 (1.27) C:54% T:87%	pCi/L	10/22/19 16:07	15262-20-1	
Total Radium	Total Radium Calculation	1.66 ± 0.983 (1.66)	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen

Pace Project No.: 2623697

QC Batch: 365770

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2623697001, 2623697002, 2623697003, 2623697004

METHOD BLANK: 1774264

Matrix: Water

Associated Lab Samples: 2623697001, 2623697002, 2623697003, 2623697004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.444 ± 0.254 (0.311) C:92% T:NA	pCi/L	10/18/19 08:27	

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 Bowen

Pace Project No.: 2623697

QC Batch:	365771	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2623697001, 2623697002, 2623697003, 2623697004		

METHOD BLANK:	1774265	Matrix:	Water
Associated Lab Samples:	2623697001, 2623697002, 2623697003, 2623697004		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.497 ± 0.426 (0.854) C:61% T:84%	pCi/L	10/22/19 12:20	

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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QUALIFIERS

Project: Plant Bowen
Pace Project No.: 2623697

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 Bowen
Pace Project No.: 2623697

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623697001	BGWC-22	EPA 9315	365770		
2623697002	BGWC-23	EPA 9315	365770		
2623697003	BGWC-30	EPA 9315	365770		
2623697004	BGWC-36D	EPA 9315	365770		
2623697001	BGWC-22	EPA 9320	365771		
2623697002	BGWC-23	EPA 9320	365771		
2623697003	BGWC-30	EPA 9320	365771		
2623697004	BGWC-36D	EPA 9320	365771		
2623697001	BGWC-22	Total Radium Calculation	367489		
2623697002	BGWC-23	Total Radium Calculation	367489		
2623697003	BGWC-30	Total Radium Calculation	367489		
2623697004	BGWC-36D	Total Radium Calculation	367489		

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:	Jolju Abraham	Attention:	
Address:	2480 Mamer Road Atlanta, GA 30339	Copy To:	Geosyntec	Company Name:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Address:	
Phone:	(404)508-7239	Project Name:	Plant Bowen Additional Parameters	Pace Quote:	
Requested Due Date:		Project #:	Ash Pond	Pace Project Manager:	betsy.mcdaniel@paceciabs.com
				Pace Profile #:	315.5
				State / Location:	GA
				Regulatory Agency:	

Page: Of

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see vint codes to left)	# OF CONTAINERS	PRESERVATIVES					ANALYSES TEST	Y/N	RESIDUAL CHLORINE (Y/N)
			START DATE	END DATE				UNPRESERVED	H2SO4	HNO3	HCl	NaOH			
1	Drinking Water	DW	9/27/19 1006		G	W	4		3					X	
2	Waste Water	WW	9/27/19 1345		G	W	4		3					X	
3	Product	P	9/27/19 0945		G	W	4		3					X	
4	Soil	SL	9/27/19 1202		G	W	4		3					X	
5	Other	OT	9/27/19 1308		G	W	3		2					X	

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

WO#: 2623697

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP IN C	RECEIVED ON	ICE (Y/N)	CUSTODY	SEALID	COOL (Y/N)	SAMPLES	INTACT (Y/N)
	Audrey Crawford	9/27/19	1600	Charles Hanks	9/27/19	1600	2.5			Y	Y	Y	Y	Y

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Audrey Crawford
 SIGNATURE of SAMPLER:

DATE Signed: 9/27/19

Sample Condition Upon Receipt

Face Analytical

Client Name: GLA Power

Project # _____

WO# : 2623697

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 89 Type of Ice: Wet Blue None

Cooler Temperature 2.5
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Samples on ice, cooling process has begun

PM: BM

Due Date: 10/25/19

CLIENT: GAPower-CCR

Date and initials of person examining contents: 9/27/19 ml

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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8. <u>very limited vol. for Radium.</u>
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: only 1 Radium container halfway full Present.

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 11, 2019

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

RE: Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623719

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 Bowen Additional Paramet
Pace Project No.: 2623719

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623719001	BGWC-7	Water	09/24/19 08:58	09/27/19 13:15
2623719002	BGWC-8	Water	09/24/19 10:15	09/27/19 13:15
2623719003	BGWC-9	Water	09/24/19 12:05	09/27/19 13:15
2623719004	BGWC-31	Water	09/24/19 13:36	09/27/19 13:15
2623719005	BGWC-34D	Water	09/24/19 10:45	09/27/19 13:15
2623719006	FBL 092419	Water	09/24/19 15:30	09/27/19 13:15
2623719007	EQBL 092419	Water	09/24/19 15:30	09/27/19 13:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623719

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623719001	BGWC-7	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623719002	BGWC-8	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623719003	BGWC-9	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623719004	BGWC-31	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623719005	BGWC-34D	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623719006	FBL 092419	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623719007	EQBL 092419	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	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 Bowen Additional Paramet
Pace Project No.: 2623719

Sample: BGWC-7 Lab ID: 2623719001 Collected: 09/24/19 08:58 Received: 09/27/19 13:15 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									
Arsenic	0.0031J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 19:04	7440-38-2	
Barium	0.035	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 19:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 19:04	7440-41-7	
Boron	1.6	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 19:04	7440-42-8	M1
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 19:04	7440-43-9	
Calcium	151	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 19:09	7440-70-2	M6
Chromium	0.00055J	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 19:04	7440-47-3	
Cobalt	0.00078J	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 19:04	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 19:04	7439-92-1	
Lithium	0.0083J	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 19:04	7439-93-2	
Molybdenum	0.010J	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 19:04	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 19:04	7782-49-2	
Thallium	0.000087J	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 19:04	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:07	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	733	mg/L	10.0	10.0	1		10/01/19 16:38		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Rev 2.1 1993									
Chloride	8.0	mg/L	1.0	0.60	1		10/05/19 19:45	16887-00-6	
Fluoride	0.12J	mg/L	0.30	0.050	1		10/05/19 19:45	16984-48-8	
Sulfate	266	mg/L	6.0	3.0	6		10/06/19 05:28	14808-79-8	M6

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

Sample: BGWC-8		Lab ID: 2623719002		Collected: 09/24/19 10:15		Received: 09/27/19 13:15		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								
Arsenic	0.00047J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 19:55	7440-38-2		
Barium	0.030	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 19:55	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 19:55	7440-41-7		
Boron	0.060	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 19:55	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 19:55	7440-43-9		
Calcium	42.4	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 20:01	7440-70-2		
Chromium	0.063	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 19:55	7440-47-3		
Cobalt	0.0012J	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 19:55	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 19:55	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 19:55	7439-93-2		
Molybdenum	0.0016J	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 19:55	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 19:55	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 19:55	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:21	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	193	mg/L	10.0	10.0	1		10/01/19 19:34			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	1.5	mg/L	1.0	0.60	1		10/05/19 21:12	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		10/05/19 21:12	16984-48-8		
Sulfate	36.5	mg/L	1.0	0.50	1		10/05/19 21:12	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

Sample: BGWC-9		Lab ID: 2623719003		Collected: 09/24/19 12:05		Received: 09/27/19 13:15		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							
Arsenic	0.0033J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 20:07	7440-38-2	
Barium	0.035	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 20:07	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 20:07	7440-41-7	
Boron	0.51	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 20:07	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 20:07	7440-43-9	
Calcium	57.6	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 20:12	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 20:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 20:07	7440-48-4	
Lead	0.000056J	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 20:07	7439-92-1	
Lithium	0.0011J	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 20:07	7439-93-2	
Molybdenum	0.0041J	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 20:07	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 20:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 20:07	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:24	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	325	mg/L	10.0	10.0	1		10/01/19 19:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993							
Chloride	13.2	mg/L	1.0	0.60	1		10/05/19 21:41	16887-00-6	
Fluoride	0.096J	mg/L	0.30	0.050	1		10/05/19 21:41	16984-48-8	
Sulfate	89.0	mg/L	1.0	0.50	1		10/05/19 21:41	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

Sample: BGWC-31		Lab ID: 2623719004		Collected: 09/24/19 13:36		Received: 09/27/19 13:15		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								
Arsenic	0.0055	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 20:18	7440-38-2		
Barium	0.038	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 20:18	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 20:18	7440-41-7		
Boron	0.72	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 20:18	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 20:18	7440-43-9		
Calcium	70.7	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 20:24	7440-70-2		
Chromium	0.00064J	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 20:18	7440-47-3		
Cobalt	0.00041J	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 20:18	7440-48-4		
Lead	0.00040J	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 20:18	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 20:18	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 20:18	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 20:18	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 20:18	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:26	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	419	mg/L	10.0	10.0	1		10/01/19 19:35			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	38.0	mg/L	1.0	0.60	1		10/05/19 21:56	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		10/05/19 21:56	16984-48-8		
Sulfate	97.2	mg/L	2.0	1.0	2		10/06/19 07:14	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

Sample: BGWC-34D		Lab ID: 2623719005		Collected: 09/24/19 10:45		Received: 09/27/19 13:15		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								
Arsenic	0.016	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 20:29	7440-38-2		
Barium	0.036	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 20:29	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 20:29	7440-41-7		
Boron	0.26	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 20:29	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 20:29	7440-43-9		
Calcium	102	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 20:35	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 20:29	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 20:29	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 20:29	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 20:29	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 20:29	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 20:29	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 20:29	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:28	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	442	mg/L	10.0	10.0	1		10/01/19 19:35			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	32.2	mg/L	1.0	0.60	1		10/05/19 21:27	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		10/05/19 21:27	16984-48-8		
Sulfate	80.7	mg/L	2.0	1.0	2		10/06/19 06:57	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

Sample: FBL 092419 Lab ID: 2623719006 Collected: 09/24/19 15:30 Received: 09/27/19 13:15 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									
Arsenic	ND	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 20:41	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 20:41	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 20:41	7440-41-7	
Boron	ND	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 20:41	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 20:41	7440-43-9	
Calcium	ND	mg/L	0.10	0.011	1	10/02/19 16:00	10/04/19 20:41	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 20:41	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 20:41	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 20:41	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 20:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 20:41	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 20:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 20:41	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:31	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/01/19 19:37		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Rev 2.1 1993									
Chloride	ND	mg/L	1.0	0.60	1		10/05/19 22:10	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		10/05/19 22:10	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		10/05/19 22:10	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

Sample: EQBL 092419		Lab ID: 2623719007		Collected: 09/24/19 15:30		Received: 09/27/19 13:15		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								
Arsenic	ND	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 20:47	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 20:47	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 20:47	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 20:47	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 20:47	7440-43-9		
Calcium	0.039J	mg/L	0.10	0.011	1	10/02/19 16:00	10/04/19 20:47	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 20:47	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 20:47	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 20:47	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 20:47	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 20:47	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 20:47	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 20:47	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:33	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/01/19 19:37			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	ND	mg/L	1.0	0.60	1		10/05/19 22:25	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		10/05/19 22:25	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		10/05/19 22:25	14808-79-8		

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623719

QC Batch: 36432 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 2623719001, 2623719002, 2623719003, 2623719004, 2623719005, 2623719006, 2623719007

METHOD BLANK: 164527 Matrix: Water
 Associated Lab Samples: 2623719001, 2623719002, 2623719003, 2623719004, 2623719005, 2623719006, 2623719007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/04/19 12:02	

LABORATORY CONTROL SAMPLE: 164528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164529 164530

Parameter	Units	2623719001 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	100	101	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 Bowen Additional Paramet
Pace Project No.: 2623719

QC Batch: 36350 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623719001, 2623719002, 2623719003, 2623719004, 2623719005, 2623719006, 2623719007

METHOD BLANK: 164111 Matrix: Water
Associated Lab Samples: 2623719001, 2623719002, 2623719003, 2623719004, 2623719005, 2623719006, 2623719007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00035	10/04/19 18:52	
Barium	mg/L	ND	0.010	0.00049	10/04/19 18:52	
Beryllium	mg/L	ND	0.0030	0.000074	10/04/19 18:52	
Boron	mg/L	ND	0.040	0.0049	10/04/19 18:52	
Cadmium	mg/L	ND	0.0025	0.00011	10/04/19 18:52	
Calcium	mg/L	ND	0.10	0.011	10/04/19 18:52	
Chromium	mg/L	ND	0.010	0.00039	10/04/19 18:52	
Cobalt	mg/L	ND	0.0050	0.00030	10/04/19 18:52	
Lead	mg/L	ND	0.0050	0.000046	10/04/19 18:52	
Lithium	mg/L	ND	0.030	0.00078	10/04/19 18:52	
Molybdenum	mg/L	ND	0.010	0.00095	10/04/19 18:52	
Selenium	mg/L	ND	0.010	0.0013	10/04/19 18:52	
Thallium	mg/L	ND	0.0010	0.000052	10/04/19 18:52	

LABORATORY CONTROL SAMPLE: 164112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164113 164114

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623719001 Result	Spike Conc.	Spike Conc.	Conc.								
Arsenic	mg/L	0.0031J	0.1	0.1	0.11	0.11	105	103	75-125	2	20		
Barium	mg/L	0.035	0.1	0.1	0.14	0.14	107	105	75-125	1	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623719

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164113		164114		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2623719001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Boron	mg/L	1.6	1	1	3.1	3.2	150	159	75-125	3	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20		
Calcium	mg/L	151	1	1	147	153	-435	208	75-125	4	20	M6	
Chromium	mg/L	0.00055J	0.1	0.1	0.11	0.11	108	114	75-125	6	20		
Cobalt	mg/L	0.00078J	0.1	0.1	0.10	0.10	103	101	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20		
Lithium	mg/L	0.0083J	0.1	0.1	0.11	0.11	102	104	75-125	2	20		
Molybdenum	mg/L	0.010J	0.1	0.1	0.12	0.12	108	106	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	106	102	75-125	4	20		
Thallium	mg/L	0.000087J	0.1	0.1	0.098	0.097	98	97	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623719

QC Batch: 36262	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623719001	

LABORATORY CONTROL SAMPLE: 163778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	357	89	84-108	

SAMPLE DUPLICATE: 163780

Parameter	Units	2623620001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	146	139	5	10	

SAMPLE DUPLICATE: 163844

Parameter	Units	2623559001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	133	124	7	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

QC Batch: 501931 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: 2623719001, 2623719002, 2623719003, 2623719004, 2623719005, 2623719006, 2623719007

METHOD BLANK: 2699067 Matrix: Water
Associated Lab Samples: 2623719001, 2623719002, 2623719003, 2623719004, 2623719005, 2623719006, 2623719007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/05/19 19:16	
Fluoride	mg/L	ND	0.10	0.050	10/05/19 19:16	
Sulfate	mg/L	ND	1.0	0.50	10/05/19 19:16	

LABORATORY CONTROL SAMPLE: 2699068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	53.3	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2699069 2699070

Parameter	Units	2623719001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.0	50	50	61.8	62.5	108	109	90-110	1	10	
Fluoride	mg/L	0.12J	2.5	2.5	2.7	2.8	104	106	90-110	2	10	
Sulfate	mg/L	266	50	50	306	280	80	28	90-110	9	10 M6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2699071 2699072

Parameter	Units	2623723002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	28.7	50	50	75.4	81.4	93	105	90-110	8	10	
Fluoride	mg/L	ND	2.5	2.5	2.3	2.6	90	103	90-110	13	10 R1	
Sulfate	mg/L	288	50	50	333	357	90	139	90-110	7	10 M6	

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QUALIFIERS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623719

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.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623719

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623719001	BGWC-7	EPA 3005A	36350	EPA 6020B	36384
2623719002	BGWC-8	EPA 3005A	36350	EPA 6020B	36384
2623719003	BGWC-9	EPA 3005A	36350	EPA 6020B	36384
2623719004	BGWC-31	EPA 3005A	36350	EPA 6020B	36384
2623719005	BGWC-34D	EPA 3005A	36350	EPA 6020B	36384
2623719006	FBL 092419	EPA 3005A	36350	EPA 6020B	36384
2623719007	EQBL 092419	EPA 3005A	36350	EPA 6020B	36384
2623719001	BGWC-7	EPA 7470A	36432	EPA 7470A	36488
2623719002	BGWC-8	EPA 7470A	36432	EPA 7470A	36488
2623719003	BGWC-9	EPA 7470A	36432	EPA 7470A	36488
2623719004	BGWC-31	EPA 7470A	36432	EPA 7470A	36488
2623719005	BGWC-34D	EPA 7470A	36432	EPA 7470A	36488
2623719006	FBL 092419	EPA 7470A	36432	EPA 7470A	36488
2623719007	EQBL 092419	EPA 7470A	36432	EPA 7470A	36488
2623719001	BGWC-7	SM 2540C	36262		
2623719002	BGWC-8	SM 2540C	36295		
2623719003	BGWC-9	SM 2540C	36295		
2623719004	BGWC-31	SM 2540C	36295		
2623719005	BGWC-34D	SM 2540C	36295		
2623719006	FBL 092419	SM 2540C	36295		
2623719007	EQBL 092419	SM 2540C	36295		
2623719001	BGWC-7	EPA 300.0 Rev 2.1 1993	501931		
2623719002	BGWC-8	EPA 300.0 Rev 2.1 1993	501931		
2623719003	BGWC-9	EPA 300.0 Rev 2.1 1993	501931		
2623719004	BGWC-31	EPA 300.0 Rev 2.1 1993	501931		
2623719005	BGWC-34D	EPA 300.0 Rev 2.1 1993	501931		
2623719006	FBL 092419	EPA 300.0 Rev 2.1 1993	501931		
2623719007	EQBL 092419	EPA 300.0 Rev 2.1 1993	501931		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 2623719

Client Name: GA Power CCR

PM: BM

Due Date: 10/04/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 214
Cooler Temperature 5.0°C

Type of Ice: Wet Blue None

Biological Tissue is Frozen: Yes No

Optional
Proj: _____ Due Date: _____
Proj: Name: _____

Date and Initials of person examining contents: 9/27/19 CM

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:

Person Contacted: _____

Date/Time: _____

Field Data Required? Y / N

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 25, 2019

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

RE: Project: Plant Bowen Additional Paramet
Pace Project No.: 2623720

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

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 Bowen Additional Paramet

Pace Project No.: 2623720

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623720001	BGWC-7	Water	09/24/19 08:58	09/27/19 13:15
2623720002	BGWC-8	Water	09/24/19 10:15	09/27/19 13:15
2623720003	BGWC-9	Water	09/24/19 12:05	09/27/19 13:15
2623720004	BGWC-31	Water	09/24/19 13:36	09/27/19 13:15
2623720005	BGWC-34D	Water	09/24/19 10:45	09/27/19 13:15
2623720006	FBL 092419	Water	09/24/19 15:30	09/27/19 13:15
2623720007	EQBL 092419	Water	09/24/19 15:35	09/27/19 13:15

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623720001	BGWC-7	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623720002	BGWC-8	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623720003	BGWC-9	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623720004	BGWC-31	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623720005	BGWC-34D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623720006	FBL 092419	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623720007	EQBL 092419	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 Bowen Additional Paramet

Pace Project No.: 2623720

Sample: BGWC-7 **Lab ID: 2623720001** Collected: 09/24/19 08:58 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.42 ± 0.490 (0.453) C:87% T:NA	pCi/L	10/15/19 08:49	13982-63-3	
Radium-228	EPA 9320	0.427 ± 0.363 (0.731) C:80% T:90%	pCi/L	10/18/19 14:14	15262-20-1	
Total Radium	Total Radium Calculation	1.85 ± 0.853 (1.18)	pCi/L	10/21/19 11:40	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

Sample: BGWC-8 **Lab ID: 2623720002** Collected: 09/24/19 10:15 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.565 ± 0.330 (0.481) C:87% T:NA	pCi/L	10/15/19 08:09	13982-63-3	
Radium-228	EPA 9320	1.12 ± 0.525 (0.892) C:80% T:71%	pCi/L	10/18/19 14:14	15262-20-1	
Total Radium	Total Radium Calculation	1.69 ± 0.855 (1.37)	pCi/L	10/21/19 11:40	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

Sample: BGWC-9 **Lab ID: 2623720003** Collected: 09/24/19 12:05 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.03 ± 0.443 (0.581) C:86% T:NA	pCi/L	10/15/19 08:11	13982-63-3	
Radium-228	EPA 9320	0.623 ± 0.465 (0.918) C:81% T:73%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	1.65 ± 0.908 (1.50)	pCi/L	10/21/19 11:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

Sample: BGWC-31 **Lab ID: 2623720004** Collected: 09/24/19 13:36 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.06 ± 0.404 (0.418) C:93% T:NA	pCi/L	10/15/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.615 ± 0.430 (0.843) C:81% T:87%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	1.68 ± 0.834 (1.26)	pCi/L	10/21/19 11:40	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

Sample: BGWC-34D **Lab ID: 2623720005** Collected: 09/24/19 10:45 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	3.37 ± 0.904 (0.536) C:65% T:NA	pCi/L	10/15/19 08:10	13982-63-3	
Radium-228	EPA 9320	0.611 ± 0.524 (1.06) C:79% T:67%	pCi/L	10/18/19 14:14	15262-20-1	
Total Radium	Total Radium Calculation	3.98 ± 1.43 (1.60)	pCi/L	10/21/19 11:40	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

Sample: FBL 092419 **Lab ID: 2623720006** Collected: 09/24/19 15:30 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.588 ± 0.312 (0.408) C:88% T:NA	pCi/L	10/15/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.221 ± 0.377 (0.823) C:82% T:85%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	0.809 ± 0.689 (1.23)	pCi/L	10/21/19 11:40	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

Sample: EQBL 092419 **Lab ID: 2623720007** Collected: 09/24/19 15:35 Received: 09/27/19 13:15 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 ± 0.271 (0.432) C:99% T:NA	pCi/L	10/15/19 08:12	13982-63-3	
Radium-228	EPA 9320	-0.191 ± 0.383 (0.929) C:82% T:72%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	0.417 ± 0.654 (1.36)	pCi/L	10/21/19 11:41	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Additional Paramet

Pace Project No.: 2623720

QC Batch: 365380

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2623720001, 2623720002, 2623720003, 2623720004, 2623720005, 2623720006, 2623720007

METHOD BLANK: 1772185

Matrix: Water

Associated Lab Samples: 2623720001, 2623720002, 2623720003, 2623720004, 2623720005, 2623720006, 2623720007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.766 ± 0.438 (0.794) C:80% T:71%	pCi/L	10/18/19 11:08	

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 Bowen Additional Paramet

Pace Project No.: 2623720

QC Batch: 365376

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2623720001, 2623720002, 2623720003, 2623720004, 2623720005, 2623720006, 2623720007

METHOD BLANK: 1772181

Matrix: Water

Associated Lab Samples: 2623720001, 2623720002, 2623720003, 2623720004, 2623720005, 2623720006, 2623720007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.470 ± 0.253 (0.295) C:98% T:NA	pCi/L	10/15/19 08:49	

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 Bowen Additional Paramet

Pace Project No.: 2623720

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Additional Paramet
Pace Project No.: 2623720

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623720001	BGWC-7	EPA 9315	365376		
2623720002	BGWC-8	EPA 9315	365376		
2623720003	BGWC-9	EPA 9315	365376		
2623720004	BGWC-31	EPA 9315	365376		
2623720005	BGWC-34D	EPA 9315	365376		
2623720006	FBL 092419	EPA 9315	365376		
2623720007	EQBL 092419	EPA 9315	365376		
2623720001	BGWC-7	EPA 9320	365380		
2623720002	BGWC-8	EPA 9320	365380		
2623720003	BGWC-9	EPA 9320	365380		
2623720004	BGWC-31	EPA 9320	365380		
2623720005	BGWC-34D	EPA 9320	365380		
2623720006	FBL 092419	EPA 9320	365380		
2623720007	EQBL 092419	EPA 9320	365380		
2623720001	BGWC-7	Total Radium Calculation	367107		
2623720002	BGWC-8	Total Radium Calculation	367107		
2623720003	BGWC-9	Total Radium Calculation	367107		
2623720004	BGWC-31	Total Radium Calculation	367107		
2623720005	BGWC-34D	Total Radium Calculation	367107		
2623720006	FBL 092419	Total Radium Calculation	367107		
2623720007	EQBL 092419	Total Radium Calculation	367109		

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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	
Required Client Information:		Required Project Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Joju Abraham	Attention: Joju Abraham	Company Name: GeosynTec
Address: 2480 Marner Road	Copy To: GeosynTec	Address:	Pace Quete:
Email: jabraham@southemco.com	Purchase Order #: SCS 10582775	Pace Project Manager: betsy.mcdaniel@paceclabs.com,	State / Location: GA
Phone: (404)508-7299	Project Name: Plant Bowen Additional Parameters	Pace Profile #: 3155	Requested Due Date:
Requested Due Date:	Project #: Ash Pond		

ITEM #	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	PRESERVATIVES							ANALYSES TEST Y/N	Requested Analysis Filtered (Y/N)																	
					START DATE	END DATE		# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3			Mercuric	Other															
1	BGW C - 7	DW	WT G	9/24/A	0858			4	1	3						X	X	X	X	X													
2	BGW C - 8	WT	WT G	9/24/A	1015			4	1	3						X	X	X	X	X													
3	BGW C - 9	OL	WT G	9/24/A	1205			4	1	3						X	X	X	X	X													
4	BGW C - 31	OT	WT G	9/24/A	1336			4	1	3						X	X	X	X	X													
5	BGW C - 34D	TS	WT G	9/24/A	1045			4	1	3						X	X	X	X	X													
6	FBL 092419	OT	WT G	9/24/A	1530			4	1	3						X	X	X	X	X													
7	EGBL 092419	OT	WT G	9/24/A	1535			4	1	3						X	X	X	X	X													

ITEM #	ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION			ACCEPTED BY / AFFILIATION			SAMPLE CONDITIONS						
		SIGNATURE	DATE	TIME	SIGNATURE	DATE	TIME	Temp in C	Received on	Sealed	Cooler	Samples Intact		
1	Audrey Crafton	Audrey Crafton	9/26	5:00	Cindy Mandi	9/26	5:00							
2		Cindy Mandi	9/27	1223	Audrey Crafton	9/27	1223							
3					Audrey Crafton	9/27/14	1315	50	X	Y	Y	Y		

App V parameters As, Ba, Bc, Cd, Co, Cr, Hg, Li, Mo, Pb, Se, Tl Only

WO# : 2623720

2623720



Sample Condition Upon Receipt

WO#: 2623720

Client Name: GA Power CCR

PM: BM Due Date: 10/25/19 CLIENT: GAPower-CCR

Courier: [] Fed Ex [] UPS [] USPS [] Client [] Commercial [x] Pace Other

Tracking #: _____

Proj. Due Date: _____ Proj. Name: _____

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

Packing Material: [x] Bubble Wrap [] Bubble Bags [] None [] Other

Thermometer Used 214 Type of Ice: [x] Wet Blue None [] Samples on ice, cooling process has begun

Cooler Temperature 5.0°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/27/19 CCR

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 checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" 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:	W	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input checked="" 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 11, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

Pace Analytical Services Atlanta

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623721

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623721001	BGWC-10	Water	09/25/19 09:15	09/27/19 13:15
2623721002	BGWC-12	Water	09/25/19 14:05	09/27/19 13:15
2623721003	BGWC-14	Water	09/25/19 13:48	09/27/19 13:15
2623721004	DUP-2	Water	09/25/19 00:00	09/27/19 13:15
2623721005	FBL 092519	Water	09/25/19 16:24	09/27/19 13:15
2623721006	EQBL 092519	Water	09/25/19 16:31	09/27/19 13:15

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623721

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623721001	BGWC-10	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623721002	BGWC-12	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623721003	BGWC-14	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623721004	DUP-2	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623721005	FBL 092519	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623721006	EQBL 092519	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

Sample: BGWC-10		Lab ID: 2623721001		Collected: 09/25/19 09:15		Received: 09/27/19 13:15		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								
Arsenic	0.0058	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 21:04	7440-38-2		
Barium	0.047	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 21:04	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 21:04	7440-41-7		
Boron	0.49	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 21:04	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 21:04	7440-43-9		
Calcium	58.1	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 21:10	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 21:04	7440-47-3		
Cobalt	0.00056J	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 21:04	7440-48-4		
Lead	0.00019J	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 21:04	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 21:04	7439-93-2		
Molybdenum	0.0035J	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 21:04	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 21:04	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 21:04	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:35	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	388	mg/L	10.0	10.0	1		10/02/19 16:02			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	25.1	mg/L	1.0	0.024	1		10/24/19 15:31	16887-00-6	H1,M1	
Fluoride	0.075J	mg/L	0.30	0.029	1		10/24/19 15:31	16984-48-8	H1	
Sulfate	93.7	mg/L	5.0	0.085	5		10/28/19 21:11	14808-79-8	H1	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

Sample: BGWC-12		Lab ID: 2623721002		Collected: 09/25/19 14:05		Received: 09/27/19 13:15		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								
Arsenic	0.00085J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 21:15	7440-38-2		
Barium	0.035	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 21:15	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 21:15	7440-41-7		
Boron	1.1	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 21:15	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 21:15	7440-43-9		
Calcium	115	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 21:21	7440-70-2		
Chromium	0.00055J	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 21:15	7440-47-3		
Cobalt	0.00040J	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 21:15	7440-48-4		
Lead	0.00063J	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 21:15	7439-92-1		
Lithium	0.0010J	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 21:15	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 21:15	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 21:15	7782-49-2		
Thallium	0.000060J	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 21:15	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:38	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	690	mg/L	10.0	10.0	1		10/02/19 16:02			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	23.6	mg/L	1.0	0.024	1		10/24/19 16:37	16887-00-6	H1,M1	
Fluoride	0.13J	mg/L	0.30	0.029	1		10/24/19 16:37	16984-48-8	H1	
Sulfate	205	mg/L	5.0	0.085	5		10/28/19 21:33	14808-79-8	H1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

Sample: BGWC-14		Lab ID: 2623721003		Collected: 09/25/19 13:48		Received: 09/27/19 13:15		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								
Arsenic	0.0012J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 21:27	7440-38-2		
Barium	0.066	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 21:27	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 21:27	7440-41-7		
Boron	0.88	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 21:27	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 21:27	7440-43-9		
Calcium	110	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 21:32	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 21:27	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 21:27	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 21:27	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 21:27	7439-93-2		
Molybdenum	0.012	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 21:27	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 21:27	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 21:27	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:45	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	637	mg/L	10.0	10.0	1		10/02/19 16:02			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	31.9	mg/L	1.0	0.024	1		10/24/19 16:59	16887-00-6	H1	
Fluoride	0.11J	mg/L	0.30	0.029	1		10/24/19 16:59	16984-48-8	H1	
Sulfate	181	mg/L	5.0	0.085	5		10/28/19 21:55	14808-79-8	H1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

Sample: DUP-2		Lab ID: 2623721004		Collected: 09/25/19 00:00		Received: 09/27/19 13:15		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								
Arsenic	0.00079J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 21:38	7440-38-2		
Barium	0.036	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 21:38	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 21:38	7440-41-7		
Boron	1.1	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 21:38	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 21:38	7440-43-9		
Calcium	122	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 21:44	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 21:38	7440-47-3		
Cobalt	0.00046J	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 21:38	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 21:38	7439-92-1		
Lithium	0.00095J	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 21:38	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 21:38	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 21:38	7782-49-2		
Thallium	0.000060J	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 21:38	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:47	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	718	mg/L	10.0	10.0	1		10/02/19 16:03			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	23.3	mg/L	1.0	0.024	1		10/24/19 17:21	16887-00-6	H1	
Fluoride	0.079J	mg/L	0.30	0.029	1		10/24/19 17:21	16984-48-8	H1	
Sulfate	205	mg/L	5.0	0.085	5		10/28/19 22:17	14808-79-8	H1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

Sample: FBL 092519		Lab ID: 2623721005		Collected: 09/25/19 16:24		Received: 09/27/19 13:15		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								
Arsenic	ND	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 21:50	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 21:50	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 21:50	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 21:50	7440-42-8		
Cadmium	0.0013J	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 21:50	7440-43-9		
Calcium	ND	mg/L	0.10	0.011	1	10/02/19 16:00	10/04/19 21:50	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 21:50	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 21:50	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 21:50	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 21:50	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 21:50	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 21:50	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 21:50	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:50	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	13.0	mg/L	10.0	10.0	1		10/02/19 16:03			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	ND	mg/L	1.0	0.024	1		10/24/19 21:47	16887-00-6	H1	
Fluoride	ND	mg/L	0.30	0.029	1		10/24/19 21:47	16984-48-8	H1	
Sulfate	ND	mg/L	1.0	0.017	1		10/24/19 21:47	14808-79-8	H1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

Sample: EQBL 092519		Lab ID: 2623721006		Collected: 09/25/19 16:31		Received: 09/27/19 13:15		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								
Arsenic	ND	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 21:55	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 21:55	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 21:55	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 21:55	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 21:55	7440-43-9		
Calcium	ND	mg/L	0.10	0.011	1	10/02/19 16:00	10/04/19 21:55	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 21:55	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 21:55	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 21:55	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 21:55	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 21:55	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 21:55	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 21:55	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:52	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	15.0	mg/L	10.0	10.0	1		10/02/19 16:03			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.079J	mg/L	1.0	0.024	1		10/24/19 22:09	16887-00-6	H1	
Fluoride	ND	mg/L	0.30	0.029	1		10/24/19 22:09	16984-48-8	H1	
Sulfate	ND	mg/L	1.0	0.017	1		10/24/19 22:09	14808-79-8	H1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623721

QC Batch: 36432

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 2623721001, 2623721002, 2623721003, 2623721004, 2623721005, 2623721006

METHOD BLANK: 164527

Matrix: Water

Associated Lab Samples: 2623721001, 2623721002, 2623721003, 2623721004, 2623721005, 2623721006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/04/19 12:02	

LABORATORY CONTROL SAMPLE: 164528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164529 164530

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623719001 Result	Spike Conc.	Spike Conc.	Conc.								
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	0.0025	100	101	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623721

QC Batch: 36350 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623721001, 2623721002, 2623721003, 2623721004, 2623721005, 2623721006

METHOD BLANK: 164111 Matrix: Water
Associated Lab Samples: 2623721001, 2623721002, 2623721003, 2623721004, 2623721005, 2623721006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00035	10/04/19 18:52	
Barium	mg/L	ND	0.010	0.00049	10/04/19 18:52	
Beryllium	mg/L	ND	0.0030	0.000074	10/04/19 18:52	
Boron	mg/L	ND	0.040	0.0049	10/04/19 18:52	
Cadmium	mg/L	ND	0.0025	0.00011	10/04/19 18:52	
Calcium	mg/L	ND	0.10	0.011	10/04/19 18:52	
Chromium	mg/L	ND	0.010	0.00039	10/04/19 18:52	
Cobalt	mg/L	ND	0.0050	0.00030	10/04/19 18:52	
Lead	mg/L	ND	0.0050	0.000046	10/04/19 18:52	
Lithium	mg/L	ND	0.030	0.00078	10/04/19 18:52	
Molybdenum	mg/L	ND	0.010	0.00095	10/04/19 18:52	
Selenium	mg/L	ND	0.010	0.0013	10/04/19 18:52	
Thallium	mg/L	ND	0.0010	0.000052	10/04/19 18:52	

LABORATORY CONTROL SAMPLE: 164112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164113 164114

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623719001 Result	Spike Conc.	Spike Conc.	Conc.								
Arsenic	mg/L	0.0031J	0.1	0.1	0.11	0.11	105	103	75-125	2	20		
Barium	mg/L	0.035	0.1	0.1	0.14	0.14	107	105	75-125	1	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623721

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164113		164114		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623719001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Boron	mg/L	1.6	1	1	3.1	3.2	150	159	75-125	3	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20		
Calcium	mg/L	151	1	1	147	153	-435	208	75-125	4	20	M6	
Chromium	mg/L	0.00055J	0.1	0.1	0.11	0.11	108	114	75-125	6	20		
Cobalt	mg/L	0.00078J	0.1	0.1	0.10	0.10	103	101	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20		
Lithium	mg/L	0.0083J	0.1	0.1	0.11	0.11	102	104	75-125	2	20		
Molybdenum	mg/L	0.010J	0.1	0.1	0.12	0.12	108	106	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	106	102	75-125	4	20		
Thallium	mg/L	0.000087J	0.1	0.1	0.098	0.097	98	97	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623721

QC Batch: 37374 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623721001, 2623721002, 2623721003, 2623721004, 2623721005, 2623721006

METHOD BLANK: 169142 Matrix: Water
Associated Lab Samples: 2623721001, 2623721002, 2623721003, 2623721004, 2623721005, 2623721006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.024	10/24/19 14:46	
Fluoride	mg/L	ND	0.30	0.029	10/24/19 14:46	
Sulfate	mg/L	ND	1.0	0.017	10/24/19 14:46	

LABORATORY CONTROL SAMPLE: 169143

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.0	100	90-110	
Fluoride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 169144 169145

Parameter	Units	2623721001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	25.1	10	10	31.5	31.5	63	63	90-110	0	15	H1,M1
Fluoride	mg/L	0.075J	10	10	10.6	10.7	106	106	90-110	0	15	H1

MATRIX SPIKE SAMPLE: 169146

Parameter	Units	2623721002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	23.6	10	30.3	67	90-110	H1,M1
Fluoride	mg/L	0.13J	10	10.4	103	90-110	H1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623721

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

H1 Analysis conducted outside the EPA method holding time.

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

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 Bowen Ash Pond
Pace Project No.: 2623721

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623721001	BGWC-10	EPA 3005A	36350	EPA 6020B	36384
2623721002	BGWC-12	EPA 3005A	36350	EPA 6020B	36384
2623721003	BGWC-14	EPA 3005A	36350	EPA 6020B	36384
2623721004	DUP-2	EPA 3005A	36350	EPA 6020B	36384
2623721005	FBL 092519	EPA 3005A	36350	EPA 6020B	36384
2623721006	EQBL 092519	EPA 3005A	36350	EPA 6020B	36384
2623721001	BGWC-10	EPA 7470A	36432	EPA 7470A	36488
2623721002	BGWC-12	EPA 7470A	36432	EPA 7470A	36488
2623721003	BGWC-14	EPA 7470A	36432	EPA 7470A	36488
2623721004	DUP-2	EPA 7470A	36432	EPA 7470A	36488
2623721005	FBL 092519	EPA 7470A	36432	EPA 7470A	36488
2623721006	EQBL 092519	EPA 7470A	36432	EPA 7470A	36488
2623721001	BGWC-10	SM 2540C	36344		
2623721002	BGWC-12	SM 2540C	36344		
2623721003	BGWC-14	SM 2540C	36344		
2623721004	DUP-2	SM 2540C	36344		
2623721005	FBL 092519	SM 2540C	36344		
2623721006	EQBL 092519	SM 2540C	36344		
2623721001	BGWC-10	EPA 300.0	37374		
2623721002	BGWC-12	EPA 300.0	37374		
2623721003	BGWC-14	EPA 300.0	37374		
2623721004	DUP-2	EPA 300.0	37374		
2623721005	FBL 092519	EPA 300.0	37374		
2623721006	EQBL 092519	EPA 300.0	37374		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GA Power CCR

WO#: **2623721**

PM: **BM** Due Date: **10/04/19**
CLIENT: **GA Power-CCR**

Courier: Fed Ex UPS USPS Client Commercial Face Other

Tracking #: _____

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

Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 214 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 5.0°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/27/19 CCR

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 25, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623722

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623722

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 Bowen Ash Pond

Pace Project No.: 2623722

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623722001	BGWC-10	Water	09/25/19 09:15	09/27/19 13:15
2623722002	BGWC-12	Water	09/25/19 14:05	09/27/19 13:15
2623722003	BGWC-14	Water	09/25/19 13:48	09/27/19 13:15
2623722004	DUP-2	Water	09/25/19 00:00	09/27/19 13:15
2623722005	FBL 092519	Water	09/25/19 16:24	09/27/19 13:15
2623722006	EQBL 092519	Water	09/25/19 16:31	09/27/19 13:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623722

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623722001	BGWC-10	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623722002	BGWC-12	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623722003	BGWC-14	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623722004	DUP-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623722005	FBL 092519	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623722006	EQBL 092519	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 Bowen Ash Pond

Pace Project No.: 2623722

Sample: BGWC-10 **Lab ID: 2623722001** Collected: 09/25/19 09:15 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.728 ± 0.224 (0.214) C:85% T:NA	pCi/L	10/15/19 19:08	13982-63-3	
Radium-228	EPA 9320	0.0880 ± 0.439 (1.00) C:78% T:69%	pCi/L	10/18/19 14:12	15262-20-1	
Total Radium	Total Radium Calculation	0.816 ± 0.663 (1.21)	pCi/L	10/21/19 11:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623722

Sample: BGWC-12 **Lab ID: 2623722002** Collected: 09/25/19 14:05 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.409 ± 0.198 (0.314) C:87% T:NA	pCi/L	10/15/19 19:08	13982-63-3	
Radium-228	EPA 9320	0.240 ± 0.399 (0.868) C:76% T:82%	pCi/L	10/18/19 14:12	15262-20-1	
Total Radium	Total Radium Calculation	0.649 ± 0.597 (1.18)	pCi/L	10/21/19 11:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623722

Sample: BGWC-14 **Lab ID: 2623722003** Collected: 09/25/19 13:48 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	4.90 ± 0.846 (0.262) C:90% T:NA	pCi/L	10/15/19 19:08	13982-63-3	
Radium-228	EPA 9320	1.13 ± 0.530 (0.902) C:78% T:80%	pCi/L	10/18/19 14:12	15262-20-1	
Total Radium	Total Radium Calculation	6.03 ± 1.38 (1.16)	pCi/L	10/21/19 11:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623722

Sample: DUP-2 **Lab ID: 2623722004** Collected: 09/25/19 00:00 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.352 ± 0.173 (0.264) C:91% T:NA	pCi/L	10/15/19 19:08	13982-63-3	
Radium-228	EPA 9320	-0.0773 ± 0.371 (0.883) C:77% T:82%	pCi/L	10/18/19 14:12	15262-20-1	
Total Radium	Total Radium Calculation	0.352 ± 0.544 (1.15)	pCi/L	10/21/19 11:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623722

Sample: FBL 092519 **Lab ID: 2623722005** Collected: 09/25/19 16:24 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.253 ± 0.146 (0.232) C:85% T:NA	pCi/L	10/15/19 19:08	13982-63-3	
Radium-228	EPA 9320	0.0440 ± 0.410 (0.941) C:77% T:77%	pCi/L	10/18/19 14:13	15262-20-1	
Total Radium	Total Radium Calculation	0.297 ± 0.556 (1.17)	pCi/L	10/21/19 11:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623722

Sample: EQBL 092519 **Lab ID: 2623722006** Collected: 09/25/19 16:31 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.342 ± 0.176 (0.274) C:83% T:NA	pCi/L	10/15/19 19:08	13982-63-3	
Radium-228	EPA 9320	0.733 ± 0.515 (0.995) C:74% T:69%	pCi/L	10/18/19 14:13	15262-20-1	
Total Radium	Total Radium Calculation	1.08 ± 0.691 (1.27)	pCi/L	10/21/19 11:41	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623722

QC Batch:	365381	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2623722001, 2623722002, 2623722003, 2623722004, 2623722005, 2623722006		

METHOD BLANK:	1772186	Matrix:	Water
Associated Lab Samples:	2623722001, 2623722002, 2623722003, 2623722004, 2623722005, 2623722006		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0377 ± 0.401 (0.924) C:77% T:72%	pCi/L	10/18/19 14:14	

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 Bowen Ash Pond
Pace Project No.: 2623722

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 Bowen Ash Pond

Pace Project No.: 2623722

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623722001	BGWC-10	EPA 9315	365377		
2623722002	BGWC-12	EPA 9315	365377		
2623722003	BGWC-14	EPA 9315	365377		
2623722004	DUP-2	EPA 9315	365377		
2623722005	FBL 092519	EPA 9315	365377		
2623722006	EQBL 092519	EPA 9315	365377		
2623722001	BGWC-10	EPA 9320	365381		
2623722002	BGWC-12	EPA 9320	365381		
2623722003	BGWC-14	EPA 9320	365381		
2623722004	DUP-2	EPA 9320	365381		
2623722005	FBL 092519	EPA 9320	365381		
2623722006	EQBL 092519	EPA 9320	365381		
2623722001	BGWC-10	Total Radium Calculation	367109		
2623722002	BGWC-12	Total Radium Calculation	367109		
2623722003	BGWC-14	Total Radium Calculation	367109		
2623722004	DUP-2	Total Radium Calculation	367109		
2623722005	FBL 092519	Total Radium Calculation	367109		
2623722006	EQBL 092519	Total Radium Calculation	367109		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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Sample Condition Upon Receipt

WO#: 2623722

Face Analytical

Client Name: GA Power CCR

PM: BM

Due Date: 10/25/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Proj. Name: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

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

Cooler Temperature 214 5.0°C Biological Tissue is Frozen: Yes No **Date and Initials of person examining contents: 9/27/19 CAH**

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 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:

Person Contacted: _____ Date/Time: _____

Field Data Required? Y / N

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 11, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623723

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

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SAMPLE SUMMARY

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623723001	BGWC-35D	Water	09/26/19 09:52	09/27/19 13:15
2623723002	BGWC-16	Water	09/26/19 09:56	09/27/19 13:15
2623723003	BGWC-17	Water	09/26/19 11:34	09/27/19 13:15
2623723004	BGWC-18	Water	09/26/19 12:57	09/27/19 13:15
2623723005	BGWC-32	Water	09/26/19 13:48	09/27/19 13:15
2623723006	BGWC-19	Water	09/26/19 14:05	09/27/19 13:15
2623723007	BGWC-20	Water	09/26/19 16:15	09/27/19 13:15

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623723

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623723001	BGWC-35D	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623723002	BGWC-16	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623723003	BGWC-17	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623723004	BGWC-18	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623723005	BGWC-32	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623723006	BGWC-19	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2623723007	BGWC-20	EPA 6020B	CSW	13	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

Sample: BGWC-35D		Lab ID: 2623723001		Collected: 09/26/19 09:52		Received: 09/27/19 13:15		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								
Arsenic	0.0035J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 22:13	7440-38-2		
Barium	0.085	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 22:13	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 22:13	7440-41-7		
Boron	10	mg/L	2.0	0.25	50	10/02/19 16:00	10/04/19 22:18	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 22:13	7440-43-9		
Calcium	417	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 22:18	7440-70-2		
Chromium	0.00067J	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 22:13	7440-47-3		
Cobalt	0.0019J	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 22:13	7440-48-4		
Lead	0.000069J	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 22:13	7439-92-1		
Lithium	0.013J	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 22:13	7439-93-2		
Molybdenum	0.033	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 22:13	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 22:13	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 22:13	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:55	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	2240	mg/L	10.0	10.0	1		10/03/19 20:28			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	500	mg/L	12.0	7.2	12		10/06/19 07:28	16887-00-6		
Fluoride	0.11J	mg/L	0.30	0.050	1		10/05/19 23:08	16984-48-8		
Sulfate	517	mg/L	12.0	6.0	12		10/06/19 07:28	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

Sample: BGWC-16 Lab ID: 2623723002 Collected: 09/26/19 09:56 Received: 09/27/19 13:15 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										
Arsenic	0.00074J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 22:24	7440-38-2		
Barium	0.031	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 22:24	7440-39-3		
Beryllium	0.000080J	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 22:24	7440-41-7		
Boron	1.5	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 22:24	7440-42-8		
Cadmium	0.0017J	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 22:24	7440-43-9		
Calcium	136	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 22:30	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 22:24	7440-47-3		
Cobalt	0.0093	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 22:24	7440-48-4		
Lead	0.00034J	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 22:24	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 22:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 22:24	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 22:24	7782-49-2		
Thallium	0.00023J	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 22:24	7440-28-0		
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A										
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:57	7439-97-6		
2540C Total Dissolved Solids Analytical Method: SM 2540C										
Total Dissolved Solids	688	mg/L	10.0	10.0	1		10/03/19 20:28			
300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Rev 2.1 1993										
Chloride	28.7	mg/L	1.0	0.60	1		10/06/19 00:06	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		10/06/19 00:06	16984-48-8	R1	
Sulfate	288	mg/L	7.0	3.5	7		10/06/19 07:43	14808-79-8	M6	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

Sample: BGWC-17 Lab ID: 2623723003 Collected: 09/26/19 11:34 Received: 09/27/19 13:15 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									
Arsenic	0.00080J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 22:35	7440-38-2	
Barium	0.023	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 22:35	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 22:35	7440-41-7	
Boron	2.5	mg/L	2.0	0.25	50	10/02/19 16:00	10/04/19 22:41	7440-42-8	
Cadmium	0.00015J	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 22:35	7440-43-9	
Calcium	94.2	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 22:41	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 22:35	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 22:35	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 22:35	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 22:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 22:35	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 22:35	7782-49-2	
Thallium	0.00026J	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 22:35	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 12:59	7439-97-6	
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	550	mg/L	10.0	10.0	1		10/03/19 20:28		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0 Rev 2.1 1993									
Chloride	47.1	mg/L	1.0	0.60	1		10/06/19 00:50	16887-00-6	
Fluoride	0.071J	mg/L	0.30	0.050	1		10/06/19 00:50	16984-48-8	
Sulfate	219	mg/L	5.0	2.5	5		10/06/19 08:27	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

Sample: BGWC-18		Lab ID: 2623723004		Collected: 09/26/19 12:57		Received: 09/27/19 13:15		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								
Arsenic	0.00046J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 22:47	7440-38-2		
Barium	0.042	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 22:47	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 22:47	7440-41-7		
Boron	1.1	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 22:47	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 22:47	7440-43-9		
Calcium	91.7	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 22:53	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 22:47	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 22:47	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 22:47	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 22:47	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 22:47	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 22:47	7782-49-2		
Thallium	0.000071J	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 22:47	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 13:02	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	470	mg/L	10.0	10.0	1		10/03/19 20:28			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	60.5	mg/L	1.0	0.60	1		10/06/19 01:04	16887-00-6		
Fluoride	0.052J	mg/L	0.30	0.050	1		10/06/19 01:04	16984-48-8		
Sulfate	114	mg/L	2.0	1.0	2		10/06/19 08:43	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

Sample: BGWC-32		Lab ID: 2623723005		Collected: 09/26/19 13:48		Received: 09/27/19 13:15		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								
Arsenic	0.0018J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 22:58	7440-38-2		
Barium	0.12	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 22:58	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 22:58	7440-41-7		
Boron	6.1	mg/L	2.0	0.25	50	10/02/19 16:00	10/04/19 23:04	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 22:58	7440-43-9		
Calcium	290	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 23:04	7440-70-2		
Chromium	0.00062J	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 22:58	7440-47-3		
Cobalt	0.010	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 22:58	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 22:58	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 22:58	7439-93-2		
Molybdenum	0.0030J	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 22:58	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 22:58	7782-49-2		
Thallium	0.00017J	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 22:58	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 13:04	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1410	mg/L	10.0	10.0	1		10/03/19 20:29			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	358	mg/L	7.0	4.2	7		10/06/19 09:41	16887-00-6		
Fluoride	0.15J	mg/L	0.30	0.050	1		10/06/19 01:19	16984-48-8		
Sulfate	336	mg/L	7.0	3.5	7		10/06/19 09:41	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623723

Sample: BGWC-19		Lab ID: 2623723006		Collected: 09/26/19 14:05		Received: 09/27/19 13:15		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								
Arsenic	0.00067J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 23:21	7440-38-2		
Barium	0.049	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 23:21	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 23:21	7440-41-7		
Boron	0.96	mg/L	0.040	0.0049	1	10/02/19 16:00	10/04/19 23:21	7440-42-8		
Cadmium	0.00020J	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 23:21	7440-43-9		
Calcium	80.8	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 23:27	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 23:21	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 23:21	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 23:21	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 23:21	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 23:21	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 23:21	7782-49-2		
Thallium	0.000080J	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 23:21	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 13:06	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	428	mg/L	10.0	10.0	1		10/03/19 20:29			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	26.0	mg/L	1.0	0.60	1		10/06/19 01:33	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		10/06/19 01:33	16984-48-8		
Sulfate	130	mg/L	3.0	1.5	3		10/06/19 09:57	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

Sample: BGWC-20		Lab ID: 2623723007		Collected: 09/26/19 16:15	Received: 09/27/19 13:15	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								
Arsenic	0.00087J	mg/L	0.0050	0.00035	1	10/02/19 16:00	10/04/19 23:33	7440-38-2		
Barium	0.032	mg/L	0.010	0.00049	1	10/02/19 16:00	10/04/19 23:33	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/02/19 16:00	10/04/19 23:33	7440-41-7		
Boron	4.4	mg/L	2.0	0.25	50	10/02/19 16:00	10/04/19 23:38	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/02/19 16:00	10/04/19 23:33	7440-43-9		
Calcium	243	mg/L	5.0	0.55	50	10/02/19 16:00	10/04/19 23:38	7440-70-2		
Chromium	0.0022J	mg/L	0.010	0.00039	1	10/02/19 16:00	10/04/19 23:33	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/02/19 16:00	10/04/19 23:33	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/02/19 16:00	10/04/19 23:33	7439-92-1		
Lithium	0.018J	mg/L	0.030	0.00078	1	10/02/19 16:00	10/04/19 23:33	7439-93-2		
Molybdenum	0.015	mg/L	0.010	0.00095	1	10/02/19 16:00	10/04/19 23:33	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/02/19 16:00	10/04/19 23:33	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/02/19 16:00	10/04/19 23:33	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/03/19 17:25	10/04/19 13:14	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1210	mg/L	10.0	10.0	1		10/03/19 20:29			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	128	mg/L	11.0	6.6	11		10/06/19 10:11	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		10/06/19 01:48	16984-48-8		
Sulfate	498	mg/L	11.0	5.5	11		10/06/19 10:11	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

QC Batch: 36432 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2623723001, 2623723002, 2623723003, 2623723004, 2623723005, 2623723006, 2623723007

METHOD BLANK: 164527 Matrix: Water
Associated Lab Samples: 2623723001, 2623723002, 2623723003, 2623723004, 2623723005, 2623723006, 2623723007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/04/19 12:02	

LABORATORY CONTROL SAMPLE: 164528

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164529 164530

Parameter	Units	2623719001 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	100	101	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

QC Batch: 36350 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623723001, 2623723002, 2623723003, 2623723004, 2623723005, 2623723006, 2623723007

METHOD BLANK: 164111 Matrix: Water
Associated Lab Samples: 2623723001, 2623723002, 2623723003, 2623723004, 2623723005, 2623723006, 2623723007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00035	10/04/19 18:52	
Barium	mg/L	ND	0.010	0.00049	10/04/19 18:52	
Beryllium	mg/L	ND	0.0030	0.000074	10/04/19 18:52	
Boron	mg/L	ND	0.040	0.0049	10/04/19 18:52	
Cadmium	mg/L	ND	0.0025	0.00011	10/04/19 18:52	
Calcium	mg/L	ND	0.10	0.011	10/04/19 18:52	
Chromium	mg/L	ND	0.010	0.00039	10/04/19 18:52	
Cobalt	mg/L	ND	0.0050	0.00030	10/04/19 18:52	
Lead	mg/L	ND	0.0050	0.000046	10/04/19 18:52	
Lithium	mg/L	ND	0.030	0.00078	10/04/19 18:52	
Molybdenum	mg/L	ND	0.010	0.00095	10/04/19 18:52	
Selenium	mg/L	ND	0.010	0.0013	10/04/19 18:52	
Thallium	mg/L	ND	0.0010	0.000052	10/04/19 18:52	

LABORATORY CONTROL SAMPLE: 164112

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164113 164114

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623719001 Result	Spike Conc.	Spike Conc.	Conc.								
Arsenic	mg/L	0.0031J	0.1	0.1	0.11	0.11	105	103	75-125	2	20		
Barium	mg/L	0.035	0.1	0.1	0.14	0.14	107	105	75-125	1	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2623723

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164113		164114		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623719001 Result	MS Spike Conc.	MSD Spike Conc.									
Boron	mg/L	1.6	1	1	3.1	3.2	150	159	75-125	3	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20		
Calcium	mg/L	151	1	1	147	153	-435	208	75-125	4	20	M6	
Chromium	mg/L	0.00055J	0.1	0.1	0.11	0.11	108	114	75-125	6	20		
Cobalt	mg/L	0.00078J	0.1	0.1	0.10	0.10	103	101	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20		
Lithium	mg/L	0.0083J	0.1	0.1	0.11	0.11	102	104	75-125	2	20		
Molybdenum	mg/L	0.010J	0.1	0.1	0.12	0.12	108	106	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	106	102	75-125	4	20		
Thallium	mg/L	0.000087J	0.1	0.1	0.098	0.097	98	97	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

QC Batch: 36464 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623723001, 2623723002, 2623723003, 2623723004, 2623723005, 2623723006, 2623723007

LABORATORY CONTROL SAMPLE: 164734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 164735

Parameter	Units	2623714002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	13.0	ND		10	

SAMPLE DUPLICATE: 164763

Parameter	Units	2623696005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	275	262	5	10	

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2623723

QC Batch: 501931 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: 2623723001, 2623723002, 2623723003, 2623723004, 2623723005, 2623723006, 2623723007

METHOD BLANK: 2699067 Matrix: Water
Associated Lab Samples: 2623723001, 2623723002, 2623723003, 2623723004, 2623723005, 2623723006, 2623723007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/05/19 19:16	
Fluoride	mg/L	ND	0.10	0.050	10/05/19 19:16	
Sulfate	mg/L	ND	1.0	0.50	10/05/19 19:16	

LABORATORY CONTROL SAMPLE: 2699068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.2	104	90-110	
Fluoride	mg/L	2.5	2.4	96	90-110	
Sulfate	mg/L	50	53.3	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2699069 2699070

Parameter	Units	2623719001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.0	50	50	61.8	62.5	108	109	90-110	1	10	
Fluoride	mg/L	0.12J	2.5	2.5	2.7	2.8	104	106	90-110	2	10	
Sulfate	mg/L	266	50	50	306	280	80	28	90-110	9	10 M6	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2699071 2699072

Parameter	Units	2623723002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	28.7	50	50	75.4	81.4	93	105	90-110	8	10	
Fluoride	mg/L	ND	2.5	2.5	2.3	2.6	90	103	90-110	13	10 R1	
Sulfate	mg/L	288	50	50	333	357	90	139	90-110	7	10 M6	

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2623723

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

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Bowen Ash Pond

Pace Project No.: 2623723

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623723001	BGWC-35D	EPA 3005A	36350	EPA 6020B	36384
2623723002	BGWC-16	EPA 3005A	36350	EPA 6020B	36384
2623723003	BGWC-17	EPA 3005A	36350	EPA 6020B	36384
2623723004	BGWC-18	EPA 3005A	36350	EPA 6020B	36384
2623723005	BGWC-32	EPA 3005A	36350	EPA 6020B	36384
2623723006	BGWC-19	EPA 3005A	36350	EPA 6020B	36384
2623723007	BGWC-20	EPA 3005A	36350	EPA 6020B	36384
2623723001	BGWC-35D	EPA 7470A	36432	EPA 7470A	36488
2623723002	BGWC-16	EPA 7470A	36432	EPA 7470A	36488
2623723003	BGWC-17	EPA 7470A	36432	EPA 7470A	36488
2623723004	BGWC-18	EPA 7470A	36432	EPA 7470A	36488
2623723005	BGWC-32	EPA 7470A	36432	EPA 7470A	36488
2623723006	BGWC-19	EPA 7470A	36432	EPA 7470A	36488
2623723007	BGWC-20	EPA 7470A	36432	EPA 7470A	36488
2623723001	BGWC-35D	SM 2540C	36464		
2623723002	BGWC-16	SM 2540C	36464		
2623723003	BGWC-17	SM 2540C	36464		
2623723004	BGWC-18	SM 2540C	36464		
2623723005	BGWC-32	SM 2540C	36464		
2623723006	BGWC-19	SM 2540C	36464		
2623723007	BGWC-20	SM 2540C	36464		
2623723001	BGWC-35D	EPA 300.0 Rev 2.1 1993	501931		
2623723002	BGWC-16	EPA 300.0 Rev 2.1 1993	501931		
2623723003	BGWC-17	EPA 300.0 Rev 2.1 1993	501931		
2623723004	BGWC-18	EPA 300.0 Rev 2.1 1993	501931		
2623723005	BGWC-32	EPA 300.0 Rev 2.1 1993	501931		
2623723006	BGWC-19	EPA 300.0 Rev 2.1 1993	501931		
2623723007	BGWC-20	EPA 300.0 Rev 2.1 1993	501931		

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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.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Joju Abraham	Company Name: Geosyntec	Attention:	Company Name:	Regulatory Agency:
Address: Atlanta, GA 30339	Copy To:	Purchase Order #: SCS10382775	Address:	Address:	State / Location: GA
Email: j Abraham@southemco.com	Project Name: Plant Bowen Additional Parameters	Project #: Ash Pond	Pace Project Manager: betsy.mcdaniel@paceelabs.com.	Pace Profile #: 315.5	
Phone: (404)506-7239	Project #: Ash Pond				
Requested Due Date:					

ITEM #	MATRIX CODE (A-Z, 0-9 / , ') One Character per box. Sample Ids must be unique	COLLECTED		DATE	TIME	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
		START	END										
1	BGWC - 35D	WTG	9/26/19	0952	4	1	3	3	NaOH	Unpreserved	Metals 6020/470 App. IV *		
2	BGWC - 16	WTG	9/26/19	0956	4	1	3	3	HCl	Unpreserved	Metals 6020 App. III		
3	BGWC - 17	WTG	9/26/19	1134	4	1	3	3	HNO3	Unpreserved	TDS, Cl, F, SO4		
4	BGWC - 18	WTG	9/26/19	1257	4	1	3	3	H2SO4	Unpreserved	Metals 6020/470 App. IV *		
5	BGWC - 32	WTG	9/26/19	1345	4	1	3	3	Unpreserved	Unpreserved	Metals 6020 App. III		
6	BGWC - 19	WTG	9/26/19	1405	4	1	3	3	Unpreserved	Unpreserved	TDS, Cl, F, SO4		
7	BGWC - 20	WTG	9/26/19	1615	4	1	3	3	Unpreserved	Unpreserved	Metals 6020/470 App. IV *		
8													
9													
10													
11													
12													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Audrey Crafton	9/26	5:00	Cindy March	9/26	5:00	
	Cindy March	9/27	1233	Audrey Crafton	9/27	1233	
				Charles Hanks	9/27/19	1315	Y

WO#: 2623723



Page 19 of 20

PRINT Name of SAMPLER: Audrey Crafton, Joe Booth
SIGNATURE of SAMPLER: [Signatures]

DATE Signed: 9/26/19

TEMP in C
Received on
Custody
Sealed
Cooler
Samples



Sample Condition Upon Receipt

WO#: 2623723

Client Name: GA Power CCR

PM: BM Due Date: 10/04/19
CLIENT: GAPower-CCR

Courier: [] Fed Ex [] UPS [] USPS [] Client [] Commercial [x] Pace Other

Tracking #: _____

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

Packing Material: [] Bubble Wrap [x] Bubble Bags [] None [] Other

Thermometer Used 214 Type of Ice: [x] Wet Blue None [] Samples on ice, cooling process has begun

Cooler Temperature 5.0°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/27/19 CCR

Table with 16 rows of checklist items including Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, 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 25, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623724

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623724

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 Bowen Ash Pond

Pace Project No.: 2623724

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623724001	BGWC-35D	Water	09/26/19 09:52	09/27/19 13:15
2623724002	BGWC-16	Water	09/26/19 09:56	09/27/19 13:15
2623724003	BGWC-17	Water	09/26/19 11:34	09/27/19 13:15
2623724004	BGWC-18	Water	09/26/19 12:57	09/27/19 13:15
2623724005	BGWC-32	Water	09/26/19 13:45	09/27/19 13:15
2623724006	BGWC-19	Water	09/26/19 14:05	09/27/19 13:15
2623724007	BGWC-20	Water	09/26/19 16:15	09/27/19 13:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623724

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623724001	BGWC-35D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623724002	BGWC-16	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623724003	BGWC-17	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623724004	BGWC-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623724005	BGWC-32	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623724006	BGWC-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623724007	BGWC-20	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 Bowen Ash Pond

Pace Project No.: 2623724

Sample: BGWC-35D **Lab ID: 2623724001** Collected: 09/26/19 09:52 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.67 ± 0.533 (0.469) C:90% T:NA	pCi/L	10/15/19 08:12	13982-63-3	
Radium-228	EPA 9320	1.42 ± 0.520 (0.771) C:81% T:83%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	3.09 ± 1.05 (1.24)	pCi/L	10/21/19 11:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623724

Sample: BGWC-16 **Lab ID: 2623724002** Collected: 09/26/19 09:56 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.746 ± 0.371 (0.528) C:92% T:NA	pCi/L	10/15/19 08:11	13982-63-3	
Radium-228	EPA 9320	0.704 ± 0.467 (0.900) C:77% T:81%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	1.45 ± 0.838 (1.43)	pCi/L	10/21/19 11:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623724

Sample: BGWC-17 **Lab ID: 2623724003** Collected: 09/26/19 11:34 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.556 ± 0.350 (0.595) C:93% T:NA	pCi/L	10/15/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.615 ± 0.407 (0.777) C:80% T:83%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	1.17 ± 0.757 (1.37)	pCi/L	10/21/19 11:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623724

Sample: BGWC-18 **Lab ID: 2623724004** Collected: 09/26/19 12:57 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.659 ± 0.311 (0.309) C:89% T:NA	pCi/L	10/15/19 08:29	13982-63-3	
Radium-228	EPA 9320	0.314 ± 0.341 (0.709) C:82% T:81%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	0.973 ± 0.652 (1.02)	pCi/L	10/21/19 11:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623724

Sample: BGWC-32 **Lab ID: 2623724005** Collected: 09/26/19 13:45 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.27 ± 0.449 (0.389) C:94% T:NA	pCi/L	10/15/19 09:39	13982-63-3	
Radium-228	EPA 9320	1.09 ± 0.449 (0.706) C:84% T:81%	pCi/L	10/18/19 14:15	15262-20-1	
Total Radium	Total Radium Calculation	2.36 ± 0.898 (1.10)	pCi/L	10/21/19 11:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623724

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.624 ± 0.208 (0.227) C:86% T:NA	pCi/L	10/15/19 19:08	13982-63-3	
Radium-228	EPA 9320	0.533 ± 0.387 (0.755) C:79% T:85%	pCi/L	10/18/19 14:12	15262-20-1	
Total Radium	Total Radium Calculation	1.16 ± 0.595 (0.982)	pCi/L	10/21/19 11:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623724

Sample: BGWC-20 **Lab ID: 2623724007** Collected: 09/26/19 16:15 Received: 09/27/19 13:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.657 ± 0.210 (0.226) C:93% T:NA	pCi/L	10/15/19 19:08	13982-63-3	
Radium-228	EPA 9320	0.00462 ± 0.356 (0.826) C:78% T:87%	pCi/L	10/18/19 14:12	15262-20-1	
Total Radium	Total Radium Calculation	0.662 ± 0.566 (1.05)	pCi/L	10/21/19 11:41	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623724

QC Batch: 365381

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2623724006, 2623724007

METHOD BLANK: 1772186

Matrix: Water

Associated Lab Samples: 2623724006, 2623724007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0377 ± 0.401 (0.924) C:77% T:72%	pCi/L	10/18/19 14:14	

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 Bowen Ash Pond

Pace Project No.: 2623724

QC Batch: 365380

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2623724001, 2623724002, 2623724003, 2623724004, 2623724005

METHOD BLANK: 1772185

Matrix: Water

Associated Lab Samples: 2623724001, 2623724002, 2623724003, 2623724004, 2623724005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.766 ± 0.438 (0.794) C:80% T:71%	pCi/L	10/18/19 11:08	

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 Bowen Ash Pond

Pace Project No.: 2623724

QC Batch: 365377

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2623724006, 2623724007

METHOD BLANK: 1772182

Matrix: Water

Associated Lab Samples: 2623724006, 2623724007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.373 ± 0.153 (0.180) C:94% T:NA	pCi/L	10/15/19 19:08	

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 Bowen Ash Pond

Pace Project No.: 2623724

QC Batch: 365376

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2623724001, 2623724002, 2623724003, 2623724004, 2623724005

METHOD BLANK: 1772181

Matrix: Water

Associated Lab Samples: 2623724001, 2623724002, 2623724003, 2623724004, 2623724005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.470 ± 0.253 (0.295) C:98% T:NA	pCi/L	10/15/19 08:49	

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 Bowen Ash Pond

Pace Project No.: 2623724

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 Bowen Ash Pond

Pace Project No.: 2623724

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623724001	BGWC-35D	EPA 9315	365376		
2623724002	BGWC-16	EPA 9315	365376		
2623724003	BGWC-17	EPA 9315	365376		
2623724004	BGWC-18	EPA 9315	365376		
2623724005	BGWC-32	EPA 9315	365376		
2623724006	BGWC-19	EPA 9315	365377		
2623724007	BGWC-20	EPA 9315	365377		
2623724001	BGWC-35D	EPA 9320	365380		
2623724002	BGWC-16	EPA 9320	365380		
2623724003	BGWC-17	EPA 9320	365380		
2623724004	BGWC-18	EPA 9320	365380		
2623724005	BGWC-32	EPA 9320	365380		
2623724006	BGWC-19	EPA 9320	365381		
2623724007	BGWC-20	EPA 9320	365381		
2623724001	BGWC-35D	Total Radium Calculation	367109		
2623724002	BGWC-16	Total Radium Calculation	367109		
2623724003	BGWC-17	Total Radium Calculation	367109		
2623724004	BGWC-18	Total Radium Calculation	367109		
2623724005	BGWC-32	Total Radium Calculation	367109		
2623724006	BGWC-19	Total Radium Calculation	367109		
2623724007	BGWC-20	Total Radium Calculation	367109		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

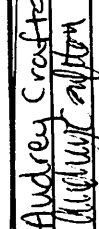
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 Of 1

Section A Required Client Information:			Section B Required Project Information:			Section C Invoice Information:		
Company: Georgia Power - Coal Combustion Residuals			Report To: Jaju Abraham			Attention:		
Address: 2480 Maner Road			Copy To: Geosync			Company Name:		
Atlanta, GA 30339			Purchase Order #: SCS10382775			Address:		
Email: jabraham@southemco.com			Project Name: Plant Bowen Additional Parameters			State / Location: GA		
Phone: (404)506-7239			Project #: Ash Pond			Requested Analysis Filtered (Y/N)		
Requested Due Date:			Project #: 315.5					

ITEM #	MATRIX Drinking Water (DW) Water (WT) Waste Water (WW) Product (P) Soil/Sediment (SL) Oil (OI) Wipe (WP) Air (AR) Other (OT) Tissue (TS)	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	DATE		RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
			START	END			DATE	TIME							
			DATE	TIME			DATE	TIME							
1		BGWC - 35D			WT G		9/26/19	0952							
2		BGWC - 16			WT G		9/26/19	0956	Audrey Crafter	9/26	5:00	Cindy Marick	9/26	5:00	
3		BGWC - 17			WT G		9/26/19	1134	Cindy Marick	9/27	1223	Audrey Crafter	9/27	1223	
4		BGWC - 18			WT G		9/26/19	1257							
5		BGWC - 32			WT G		9/26/19	1349							
6		BGWC - 19			WT G		9/26/19	1405							
7		BGWC - 20			WT G		9/26/19	1615							
8															
9															
10															
11															
12															

ADDITIONAL COMMENTS		TEMP in C	Received on	Ice (Y/N)	Custody Sealed (Y/N)	Cooper (Y/N)	Samples (Y/N)
App IV parameters As, Ba, Be, Cd, Co, Cr, Hg, Li, Mo, Pb, Se, Tl Only NO# : 2623724 Barcode:  2623724							

SAMPLER NAME AND SIGNATURE		DATE SIGNED
PRINT Name of SAMPLER: Audrey Crafter, Joe Booth	SIGNATURE OF SAMPLER: 	9/26/19



Sample Condition Upon Receipt

WO#: 2623724

Client Name: GA Power CCR

PM: BM

Due Date: 10/25/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Optional: Proj. Due Date: Proj. Name:

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used: 214 Cooler Temperature: 5.0°C

Type of Ice: Wet Blue None

Biological Tissue is Frozen: Yes No

Comments: Date and Initials of person examining contents: 9/27/19 CM

Table with 16 rows of inspection items and checkboxes. Items include Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot # (if purchased).

Client Notification/ Resolution: Person Contacted: Date/Time: Field Data Required? Y / N 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 11, 2019

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

RE: Project: Plant Bowen
Pace Project No.: 2623808

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen
Pace Project No.: 2623808

Pace Analytical Services Atlanta

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Bowen
Pace Project No.: 2623808

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623808001	BGWC-21	Water	09/30/19 09:40	10/01/19 16:30
2623808002	BGWC-24	Water	09/30/19 11:25	10/01/19 16:30
2623808003	BGWC-25	Water	09/30/19 12:18	10/01/19 16:30
2623808004	Dup-3	Water	09/30/19 00:00	10/01/19 16:30
2623808005	FBL 093019	Water	09/30/19 15:20	10/01/19 16:30
2623808006	EQBL 093019	Water	09/30/19 15:25	10/01/19 16:30

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SAMPLE ANALYTE COUNT

Project: Plant Bowen

Pace Project No.: 2623808

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623808001	BGWC-21	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623808002	BGWC-24	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623808003	BGWC-25	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623808004	Dup-3	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623808005	FBL 093019	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623808006	EQBL 093019	EPA 6020B	CSW	13
		EPA 7470A	DRB	1
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623808

Sample: BGWC-21		Lab ID: 2623808001		Collected: 09/30/19 09:40		Received: 10/01/19 16:30		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								
Arsenic	ND	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 18:46	7440-38-2		
Barium	0.036	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 18:46	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 18:46	7440-41-7		
Boron	0.040J	mg/L	0.040	0.0049	1	10/03/19 17:28	10/07/19 15:39	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 18:46	7440-43-9		
Calcium	43.2	mg/L	5.0	0.55	50	10/03/19 17:28	10/05/19 18:51	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 18:46	7440-47-3		
Cobalt	0.00040J	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 18:46	7440-48-4		
Lead	0.000073J	mg/L	0.0050	0.000046	1	10/03/19 17:28	10/05/19 18:46	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 18:46	7439-93-2		
Molybdenum	0.0030J	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 18:46	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 18:46	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 18:46	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/04/19 08:48	10/04/19 14:18	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	256	mg/L	10.0	10.0	1		10/04/19 20:02			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.7	mg/L	1.0	0.024	1		10/09/19 03:32	16887-00-6		
Fluoride	0.066J	mg/L	0.30	0.029	1		10/09/19 03:32	16984-48-8		
Sulfate	54.5	mg/L	5.0	0.085	5		10/08/19 16:16	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623808

Sample: BGWC-24		Lab ID: 2623808002		Collected: 09/30/19 11:25		Received: 10/01/19 16:30		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								
Arsenic	0.0027J	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 18:57	7440-38-2		
Barium	0.098	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 18:57	7440-39-3		
Beryllium	0.000093J	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 18:57	7440-41-7		
Boron	36.8	mg/L	10.0	1.2	250	10/03/19 17:28	10/07/19 15:45	7440-42-8		
Cadmium	0.0075	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 18:57	7440-43-9		
Calcium	1050	mg/L	25.0	2.7	250	10/03/19 17:28	10/07/19 15:45	7440-70-2		
Chromium	ND	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 18:57	7440-47-3		
Cobalt	0.0048J	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 18:57	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/03/19 17:28	10/05/19 18:57	7439-92-1		
Lithium	0.0077J	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 18:57	7439-93-2		
Molybdenum	0.00099J	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 18:57	7439-98-7		
Selenium	0.0065J	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 18:57	7782-49-2		
Thallium	0.00069J	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 18:57	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.0011	mg/L	0.00050	0.00014	1	10/04/19 08:48	10/04/19 14:20	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	4430	mg/L	10.0	10.0	1		10/04/19 20:02			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	2040	mg/L	50.0	1.2	50		10/08/19 16:37	16887-00-6		
Fluoride	1.2	mg/L	0.30	0.029	1		10/09/19 03:52	16984-48-8		
Sulfate	758	mg/L	50.0	0.85	50		10/08/19 16:37	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623808

Sample: BGWC-25		Lab ID: 2623808003		Collected: 09/30/19 12:18		Received: 10/01/19 16:30		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								
Arsenic	0.0020J	mg/L	0.0050	0.00035	1	10/03/19 17:28	10/05/19 19:20	7440-38-2		
Barium	0.016	mg/L	0.010	0.00049	1	10/03/19 17:28	10/05/19 19:20	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/03/19 17:28	10/05/19 19:20	7440-41-7		
Boron	0.038J	mg/L	0.040	0.0049	1	10/03/19 17:28	10/05/19 19:20	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/03/19 17:28	10/05/19 19:20	7440-43-9		
Calcium	47.8	mg/L	5.0	0.55	50	10/03/19 17:28	10/05/19 19:26	7440-70-2		
Chromium	0.0021J	mg/L	0.010	0.00039	1	10/03/19 17:28	10/05/19 19:20	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/03/19 17:28	10/05/19 19:20	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/03/19 17:28	10/05/19 19:20	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/03/19 17:28	10/05/19 19:20	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/03/19 17:28	10/05/19 19:20	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/03/19 17:28	10/05/19 19:20	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/03/19 17:28	10/05/19 19:20	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/04/19 08:48	10/04/19 14:22	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	220	mg/L	10.0	10.0	1		10/04/19 20:02			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	5.2	mg/L	1.0	0.024	1		10/09/19 05:15	16887-00-6		
Fluoride	0.065J	mg/L	0.30	0.029	1		10/09/19 05:15	16984-48-8		
Sulfate	10.7	mg/L	1.0	0.017	1		10/09/19 05:15	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623808

Sample: Dup-3		Lab ID: 2623808004		Collected: 09/30/19 00:00		Received: 10/01/19 16:30		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								
Arsenic	0.00063J	mg/L	0.0050	0.00035	1	10/04/19 14:03	10/07/19 18:01	7440-38-2		
Barium	0.035	mg/L	0.010	0.00049	1	10/04/19 14:03	10/07/19 18:01	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/04/19 14:03	10/07/19 18:01	7440-41-7		
Boron	0.048	mg/L	0.040	0.0049	1	10/04/19 14:03	10/07/19 18:01	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/04/19 14:03	10/07/19 18:01	7440-43-9		
Calcium	41.5	mg/L	5.0	0.55	50	10/04/19 14:03	10/07/19 18:07	7440-70-2	M6	
Chromium	0.00072J	mg/L	0.010	0.00039	1	10/04/19 14:03	10/07/19 18:01	7440-47-3		
Cobalt	0.00049J	mg/L	0.0050	0.00030	1	10/04/19 14:03	10/07/19 18:01	7440-48-4		
Lead	0.000066J	mg/L	0.0050	0.000046	1	10/04/19 14:03	10/07/19 18:01	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/04/19 14:03	10/07/19 18:01	7439-93-2		
Molybdenum	0.0028J	mg/L	0.010	0.00095	1	10/04/19 14:03	10/07/19 18:01	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/04/19 14:03	10/07/19 18:01	7782-49-2		
Thallium	0.000086J	mg/L	0.0010	0.000052	1	10/04/19 14:03	10/07/19 18:01	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/04/19 08:48	10/04/19 14:25	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	256	mg/L	10.0	10.0	1		10/04/19 20:02			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.8	mg/L	1.0	0.024	1		10/09/19 05:36	16887-00-6		
Fluoride	0.054J	mg/L	0.30	0.029	1		10/09/19 05:36	16984-48-8		
Sulfate	55.9	mg/L	5.0	0.085	5		10/08/19 16:59	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623808

Sample: FBL 093019		Lab ID: 2623808005		Collected: 09/30/19 15:20		Received: 10/01/19 16:30		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								
Arsenic	ND	mg/L	0.0050	0.00035	1	10/04/19 14:03	10/07/19 18:53	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	10/04/19 14:03	10/07/19 18:53	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/04/19 14:03	10/07/19 18:53	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/04/19 14:03	10/07/19 18:53	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/04/19 14:03	10/07/19 18:53	7440-43-9		
Calcium	ND	mg/L	0.10	0.011	1	10/04/19 14:03	10/07/19 18:53	7440-70-2		
Chromium	0.0059J	mg/L	0.010	0.00039	1	10/04/19 14:03	10/07/19 18:53	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/04/19 14:03	10/07/19 18:53	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/04/19 14:03	10/07/19 18:53	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/04/19 14:03	10/07/19 18:53	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/04/19 14:03	10/07/19 18:53	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/04/19 14:03	10/07/19 18:53	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/04/19 14:03	10/07/19 18:53	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/04/19 08:48	10/04/19 14:27	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	22.0	mg/L	10.0	10.0	1		10/04/19 20:03			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.044J	mg/L	1.0	0.024	1		10/09/19 06:17	16887-00-6	B	
Fluoride	0.031J	mg/L	0.30	0.029	1		10/09/19 06:17	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		10/09/19 06:17	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Bowen
Pace Project No.: 2623808

Sample: EQBL 093019		Lab ID: 2623808006		Collected: 09/30/19 15:25		Received: 10/01/19 16:30		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								
Arsenic	ND	mg/L	0.0050	0.00035	1	10/04/19 14:03	10/07/19 18:58	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	10/04/19 14:03	10/07/19 18:58	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	10/04/19 14:03	10/07/19 18:58	7440-41-7		
Boron	ND	mg/L	0.040	0.0049	1	10/04/19 14:03	10/07/19 18:58	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	10/04/19 14:03	10/07/19 18:58	7440-43-9		
Calcium	ND	mg/L	0.10	0.011	1	10/04/19 14:03	10/07/19 18:58	7440-70-2		
Chromium	0.00057J	mg/L	0.010	0.00039	1	10/04/19 14:03	10/07/19 18:58	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	10/04/19 14:03	10/07/19 18:58	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	10/04/19 14:03	10/07/19 18:58	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	10/04/19 14:03	10/07/19 18:58	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	10/04/19 14:03	10/07/19 18:58	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	10/04/19 14:03	10/07/19 18:58	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	10/04/19 14:03	10/07/19 18:58	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	10/04/19 08:48	10/04/19 14:30	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	21.0	mg/L	10.0	10.0	1		10/04/19 20:03			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.040J	mg/L	1.0	0.024	1		10/09/19 06:38	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/09/19 06:38	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		10/09/19 06:38	14808-79-8		

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623808

QC Batch: 36474 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2623808001, 2623808002, 2623808003, 2623808004, 2623808005, 2623808006

METHOD BLANK: 164769 Matrix: Water
Associated Lab Samples: 2623808001, 2623808002, 2623808003, 2623808004, 2623808005, 2623808006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	10/04/19 13:23	

LABORATORY CONTROL SAMPLE: 164770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164771 164772

Parameter	Units	2623752002		MS		MSD		% Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0024	95	96	75-125	1	20		

SAMPLE DUPLICATE: 164773

Parameter	Units	2623528009 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	mg/L	ND	ND		20	

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623808

QC Batch: 36434 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623808001, 2623808002, 2623808003

METHOD BLANK: 164547 Matrix: Water
Associated Lab Samples: 2623808001, 2623808002, 2623808003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00035	10/05/19 14:53	
Barium	mg/L	ND	0.010	0.00049	10/05/19 14:53	
Beryllium	mg/L	ND	0.0030	0.000074	10/05/19 14:53	
Boron	mg/L	ND	0.040	0.0049	10/05/19 14:53	
Cadmium	mg/L	ND	0.0025	0.00011	10/05/19 14:53	
Calcium	mg/L	ND	0.10	0.011	10/05/19 14:53	
Chromium	mg/L	ND	0.010	0.00039	10/05/19 14:53	
Cobalt	mg/L	ND	0.0050	0.00030	10/05/19 14:53	
Lead	mg/L	ND	0.0050	0.000046	10/05/19 14:53	
Lithium	mg/L	ND	0.030	0.00078	10/05/19 14:53	
Molybdenum	mg/L	ND	0.010	0.00095	10/05/19 14:53	
Selenium	mg/L	ND	0.010	0.0013	10/05/19 14:53	
Thallium	mg/L	ND	0.0010	0.000052	10/05/19 14:53	

LABORATORY CONTROL SAMPLE: 164548

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164549 164550

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623793002 Result	Spike Conc.	Spike Conc.	Conc.								
Arsenic	mg/L	ND	0.1	0.1	0.10	0.098	102	98	75-125	4	20		
Barium	mg/L	0.042	0.1	0.1	0.14	0.14	103	99	75-125	3	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.099	103	99	75-125	4	20		

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623808

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164549		164550		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623793002 Result	MS Spike Conc.	MSD Spike Conc.									
Boron	mg/L	0.025J	1	1	1.1	1.0	103	100	75-125	4	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	3	20		
Calcium	mg/L	17.6	1	1	19.5	20.2	188	260	75-125	4	20	M6	
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	106	101	75-125	5	20		
Cobalt	mg/L	0.00042J	0.1	0.1	0.10	0.097	102	96	75-125	6	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20		
Lithium	mg/L	0.011	0.1	0.1	0.12	0.11	108	102	75-125	5	20		
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	101	98	75-125	4	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623808

QC Batch: 36492 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623808004, 2623808005, 2623808006

METHOD BLANK: 164870 Matrix: Water
Associated Lab Samples: 2623808004, 2623808005, 2623808006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00035	10/07/19 17:47	
Barium	mg/L	ND	0.010	0.00049	10/07/19 17:47	
Beryllium	mg/L	ND	0.0030	0.000074	10/07/19 17:47	
Boron	mg/L	ND	0.040	0.0049	10/07/19 17:47	
Cadmium	mg/L	ND	0.0025	0.00011	10/07/19 17:47	
Calcium	mg/L	ND	0.10	0.011	10/07/19 17:47	
Chromium	mg/L	ND	0.010	0.00039	10/07/19 17:47	
Cobalt	mg/L	ND	0.0050	0.00030	10/07/19 17:47	
Lead	mg/L	ND	0.0050	0.000046	10/07/19 17:47	
Lithium	mg/L	ND	0.030	0.00078	10/07/19 17:47	
Molybdenum	mg/L	ND	0.010	0.00095	10/07/19 17:47	
Selenium	mg/L	ND	0.010	0.0013	10/07/19 17:47	
Thallium	mg/L	ND	0.0010	0.000052	10/07/19 17:47	

LABORATORY CONTROL SAMPLE: 164871

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Calcium	mg/L	1	0.97	97	80-120	
Chromium	mg/L	0.1	0.098	98	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164872 164873

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623808004 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Arsenic	mg/L	0.00063J	0.1	0.1	0.097	0.10	96	101	75-125	5	20	
Barium	mg/L	0.035	0.1	0.1	0.14	0.15	108	110	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623808

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 164872		164873		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623808004 Result	MS Spike Conc.	MSD Spike Conc.									
Boron	mg/L	0.048	1	1	1.0	1.0	99	99	75-125	0	20		
Cadmium	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	1	20		
Calcium	mg/L	41.5	1	1	42.5	41.7	98	25	75-125	2	20	M6	
Chromium	mg/L	0.00072J	0.1	0.1	0.097	0.10	96	100	75-125	4	20		
Cobalt	mg/L	0.00049J	0.1	0.1	0.095	0.10	94	99	75-125	5	20		
Lead	mg/L	0.000066J	0.1	0.1	0.094	0.096	94	96	75-125	3	20		
Lithium	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	1	20		
Molybdenum	mg/L	0.0028J	0.1	0.1	0.10	0.10	98	102	75-125	4	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20		
Thallium	mg/L	0.000086J	0.1	0.1	0.096	0.099	96	99	75-125	3	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen

Pace Project No.: 2623808

QC Batch: 36519

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 2623808001, 2623808002, 2623808003, 2623808004, 2623808005, 2623808006

LABORATORY CONTROL SAMPLE: 165036

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	409	102	84-108	

SAMPLE DUPLICATE: 165037

Parameter	Units	2623748003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	442	458	4	10	

SAMPLE DUPLICATE: 165038

Parameter	Units	2623793003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	475	497	5	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen
Pace Project No.: 2623808

QC Batch: 36584 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623808001, 2623808002, 2623808003, 2623808004, 2623808005, 2623808006

METHOD BLANK: 165271 Matrix: Water
Associated Lab Samples: 2623808001, 2623808002, 2623808003, 2623808004, 2623808005, 2623808006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.030J	1.0	0.024	10/09/19 00:04	
Fluoride	mg/L	ND	0.30	0.029	10/09/19 00:04	
Sulfate	mg/L	ND	1.0	0.017	10/09/19 00:04	

LABORATORY CONTROL SAMPLE: 165272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.4	104	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.4	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165273 165274

Parameter	Units	2623792001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	45.9J	1000	1000	1090	1100	105	105	90-110	1	15	
Fluoride	mg/L	3.2J	1000	1000	1090	1100	109	109	90-110	1	15	
Sulfate	mg/L	880	1000	1000	1860	1860	98	98	90-110	0	15	

MATRIX SPIKE SAMPLE: 165275

Parameter	Units	2623793001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	3.0	10	13.4	103	90-110	
Fluoride	mg/L	0.14J	10	10.9	108	90-110	
Sulfate	mg/L	17.5	10	26.4	89	90-110 M1	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen

Pace Project No.: 2623808

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.

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 Bowen
Pace Project No.: 2623808

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623808001	BGWC-21	EPA 3005A	36434	EPA 6020B	36455
2623808002	BGWC-24	EPA 3005A	36434	EPA 6020B	36455
2623808003	BGWC-25	EPA 3005A	36434	EPA 6020B	36455
2623808004	Dup-3	EPA 3005A	36492	EPA 6020B	36507
2623808005	FBL 093019	EPA 3005A	36492	EPA 6020B	36507
2623808006	EQBL 093019	EPA 3005A	36492	EPA 6020B	36507
2623808001	BGWC-21	EPA 7470A	36474	EPA 7470A	36493
2623808002	BGWC-24	EPA 7470A	36474	EPA 7470A	36493
2623808003	BGWC-25	EPA 7470A	36474	EPA 7470A	36493
2623808004	Dup-3	EPA 7470A	36474	EPA 7470A	36493
2623808005	FBL 093019	EPA 7470A	36474	EPA 7470A	36493
2623808006	EQBL 093019	EPA 7470A	36474	EPA 7470A	36493
2623808001	BGWC-21	SM 2540C	36519		
2623808002	BGWC-24	SM 2540C	36519		
2623808003	BGWC-25	SM 2540C	36519		
2623808004	Dup-3	SM 2540C	36519		
2623808005	FBL 093019	SM 2540C	36519		
2623808006	EQBL 093019	SM 2540C	36519		
2623808001	BGWC-21	EPA 300.0	36584		
2623808002	BGWC-24	EPA 300.0	36584		
2623808003	BGWC-25	EPA 300.0	36584		
2623808004	Dup-3	EPA 300.0	36584		
2623808005	FBL 093019	EPA 300.0	36584		
2623808006	EQBL 093019	EPA 300.0	36584		

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 Manor Road
Atlanta, GA 30339

Email: jabraham@southamco.com
Phone: (404) 506-7239
Requested Due Date: _____

Section B
Required Project Information:

Report To: Jaji Abraham
Copy To: Geosyntec

Purchase Order #: SCS10382775
Project Name: Plant Bowen Additional Parameters
Project #: Ash Pond

Section C
Invoice Information:

Attention:
Company Name:
Address:
Paco Quito:
Plant Project Manager: bobey.mcdaniel@paceanalytical.com
Plant Profile #: 3115.5

Page: _____ of _____

Regulatory Agency: _____
State / Location: _____
GA

Item #	MATRIX CODE (see valid codes in Matrix Type)	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	Na2S2O3	Methanol	Other																
1	WT 6	10/11/19	09:40		6	1	5						X	X														
2	WT 6	10/10/19	11:25		4	1	3						X	X														
3	WT 6	10/13/19	12:18		4	1	3						X	X														
4	WT 6	10/22/19			4	1	3						X	X														
5	WT 6	10/31/19	15:20		4	1	3						X	X														
6	WT 6	10/28/19	15:25		4	1	3						X	X														
7																												
8																												
9																												
10																												
11																												
12																												

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION: *fjs*
DATE: 10/11/19 14:00
ACCEPTED BY / AFFILIATION: *Lee Hillert*
DATE: 10-10-19 13:17

RELINQUISHED BY / AFFILIATION: *Lee Hillert*
DATE: 10-11-19 16:50
ACCEPTED BY / AFFILIATION: *Mcdaniel*
DATE: 10/21/19 16:30

TEMP In C: 20.7

Received on (Y/N): *F*

Ice (Y/N): *F*

Custody (Y/N): *F*

Cooled (Y/N): *F*

Samples (Y/N): *F*

WORLDWIDE
NO# : 2623808

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: *ANITA GORTON*
SIGNATURE of SAMPLER: *[Signature]*
DATE signed: 9/30/19



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: **2623808**

PM: **BM** Due Date: **10/08/19**

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 B3 Type of Ice: Wet Blue None

Cooler Temperature 2.0 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: 10/01/19 MK

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 29, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2623809

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 01, 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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2623809

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 Bowen Ash Pond

Pace Project No.: 2623809

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623809001	BGWC-21	Water	09/30/19 09:40	10/01/19 16:30
2623809002	BGWC-24	Water	09/30/19 11:25	10/01/19 16:30
2623809003	BGWC-25	Water	09/30/19 12:18	10/01/19 16:30
2623809004	Dup-3	Water	09/30/19 00:00	10/01/19 16:30
2623809005	FBL 093019	Water	09/30/19 15:20	10/01/19 16:30
2623809006	EQBL 093019	Water	09/30/19 15:25	10/01/19 16:30

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2623809

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623809001	BGWC-21	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623809002	BGWC-24	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623809003	BGWC-25	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623809004	Dup-3	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623809005	FBL 093019	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623809006	EQBL 093019	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 Bowen Ash Pond

Pace Project No.: 2623809

Sample: BGWC-21 **Lab ID: 2623809001** Collected: 09/30/19 09:40 Received: 10/01/19 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.535 ± 0.308 (0.395) C:89% T:NA	pCi/L	10/16/19 08:27	13982-63-3	
Radium-228	EPA 9320	-0.125 ± 0.419 (0.989) C:72% T:88%	pCi/L	10/22/19 14:24	15262-20-1	
Total Radium	Total Radium Calculation	1.16 ± 0.811 (1.53)	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623809

Sample: BGWC-24 **Lab ID: 2623809002** Collected: 09/30/19 11:25 Received: 10/01/19 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.86 ± 0.566 (0.348) C:90% T:NA	pCi/L	10/16/19 08:38	13982-63-3	
Radium-228	EPA 9320	0.874 ± 0.510 (0.944) C:69% T:84%	pCi/L	10/22/19 14:24	15262-20-1	
Total Radium	Total Radium Calculation	2.73 ± 1.08 (1.29)	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623809

Sample: BGWC-25 **Lab ID: 2623809003** Collected: 09/30/19 12:18 Received: 10/01/19 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.821 ± 0.370 (0.410) C:90% T:NA	pCi/L	10/16/19 08:38	13982-63-3	
Radium-228	EPA 9320	0.132 ± 0.399 (0.896) C:71% T:91%	pCi/L	10/22/19 14:24	15262-20-1	
Total Radium	Total Radium Calculation	0.953 ± 0.769 (1.31)	pCi/L	10/24/19 12:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623809

Sample: Dup-3 **Lab ID: 2623809004** Collected: 09/30/19 00:00 Received: 10/01/19 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.399 ± 0.279 (0.403) C:81% T:NA	pCi/L	10/16/19 08:27	13982-63-3	
Radium-228	EPA 9320	0.106 ± 0.377 (0.852) C:70% T:87%	pCi/L	10/22/19 14:24	15262-20-1	
Total Radium	Total Radium Calculation	0.505 ± 0.656 (1.26)	pCi/L	10/23/19 10:22	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623809

Sample: FBL 093019 **Lab ID: 2623809005** Collected: 09/30/19 15:20 Received: 10/01/19 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.492 ± 0.293 (0.418) C:97% T:NA	pCi/L	10/16/19 08:38	13982-63-3	
Radium-228	EPA 9320	0.358 ± 0.462 (0.985) C:70% T:90%	pCi/L	10/22/19 14:24	15262-20-1	
Total Radium	Total Radium Calculation	0.850 ± 0.755 (1.40)	pCi/L	10/24/19 12:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623809

Sample: EQBL 093019 **Lab ID: 2623809006** Collected: 09/30/19 15:25 Received: 10/01/19 16:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.288 ± 0.259 (0.475) C:94% T:NA	pCi/L	10/16/19 08:38	13982-63-3	
Radium-228	EPA 9320	0.606 ± 0.448 (0.879) C:69% T:91%	pCi/L	10/22/19 14:25	15262-20-1	
Total Radium	Total Radium Calculation	0.894 ± 0.707 (1.35)	pCi/L	10/24/19 12:53	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen Ash Pond

Pace Project No.: 2623809

QC Batch: 365558 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 2623809001, 2623809002, 2623809003, 2623809004, 2623809005, 2623809006

METHOD BLANK: 1773085 Matrix: Water

Associated Lab Samples: 2623809001, 2623809002, 2623809003, 2623809004, 2623809005, 2623809006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.522 ± 0.298 (0.379) C:86% T:NA	pCi/L	10/16/19 07:53	

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 Bowen Ash Pond

Pace Project No.: 2623809

QC Batch: 365559 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Associated Lab Samples: 2623809001, 2623809002, 2623809003, 2623809004, 2623809005, 2623809006

METHOD BLANK: 1773086 Matrix: Water

Associated Lab Samples: 2623809001, 2623809002, 2623809003, 2623809004, 2623809005, 2623809006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0794 ± 0.355 (0.809) C:69% T:86%	pCi/L	10/22/19 14:24	

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 Bowen Ash Pond
Pace Project No.: 2623809

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

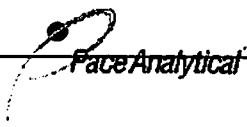
Project: Plant Bowen Ash Pond

Pace Project No.: 2623809

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623809001	BGWC-21	EPA 9315	365558		
2623809002	BGWC-24	EPA 9315	365558		
2623809003	BGWC-25	EPA 9315	365558		
2623809004	Dup-3	EPA 9315	365558		
2623809005	FBL 093019	EPA 9315	365558		
2623809006	EQBL 093019	EPA 9315	365558		
2623809001	BGWC-21	EPA 9320	365559		
2623809002	BGWC-24	EPA 9320	365559		
2623809003	BGWC-25	EPA 9320	365559		
2623809004	Dup-3	EPA 9320	365559		
2623809005	FBL 093019	EPA 9320	365559		
2623809006	EQBL 093019	EPA 9320	365559		
2623809001	BGWC-21	Total Radium Calculation	367489		
2623809002	BGWC-24	Total Radium Calculation	367489		
2623809003	BGWC-25	Total Radium Calculation	367753		
2623809004	Dup-3	Total Radium Calculation	367489		
2623809005	FBL 093019	Total Radium Calculation	367753		
2623809006	EQBL 093019	Total Radium Calculation	367753		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: **2623809**

PM: **BM** Due Date: **10/29/19**
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 2.0 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: 10/21/19 MK

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 Bowen
Pace Project No.: 2623967

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: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen
Pace Project No.: 2623967

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 Bowen
Pace Project No.: 2623967

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623967001	BGWA-33	Water	10/04/19 10:04	10/04/19 12:30

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SAMPLE ANALYTE COUNT

Project: Plant Bowen

Pace Project No.: 2623967

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623967001	BGWA-33	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 Bowen

Pace Project No.: 2623967

Sample: BGWA-33 **Lab ID: 2623967001** Collected: 10/04/19 10:04 Received: 10/04/19 12:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.628 ± 0.314 (0.352) C:86% T:NA	pCi/L	10/18/19 08:18	13982-63-3	
Radium-228	EPA 9320	0.392 ± 0.499 (1.07) C:71% T:82%	pCi/L	10/23/19 12:46	15262-20-1	
Total Radium	Total Radium Calculation	1.02 ± 0.813 (1.42)	pCi/L	11/01/19 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen

Pace Project No.: 2623967

QC Batch: 366031

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2623967001

METHOD BLANK: 1775592

Matrix: Water

Associated Lab Samples: 2623967001

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	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Bowen

Pace Project No.: 2623967

QC Batch: 366030

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2623967001

METHOD BLANK: 1775591

Matrix: Water

Associated Lab Samples: 2623967001

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	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen
Pace Project No.: 2623967

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 (%)

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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 Bowen
Pace Project No.: 2623967

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623967001	BGWA-33	EPA 9315	366030		
2623967001	BGWA-33	EPA 9320	366031		
2623967001	BGWA-33	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	Attention:	
Address:	2460 Marner Road	Copy To:	Goosyntec	Company Name:	
	Atlanta, GA 30339	Purchase Order #:	SCS10382775	Address:	
Email:	j.abraham@southemco.com	Project Name:	Plant Bowen Additional Remediation	Paco Cluoba:	
Phone:	(404)506-7239	Requested Due Date:		Paco Project Manager:	betsy.mcdaniel@pscelabs.com
				Paco Profile #:	315.5
				State / Location:	GA
				Regulatory Agency:	

Page: | Of |

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Preservatives						Analyses Test Y/N	Requested Analyses Filtered (Y/N)	Residual Chlorine (Y/N)
			START DATE	END DATE				Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3			
1	Drinking Water	DW	10/14/19	1004	G	WT	2									
2	Water	WT														
3	Waste Water	WW														
4	Product	P														
5	Soft/Solid	SL														
6	Oil	OL														
7	Wipe	WP														
8	Air	AR														
9	Other	OT														
10	Tissue	TS														
11																
12																

NO#: 2623967

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App. N, parameters As, Ba, Be, Cd, Co, Cr, Hg, Li, Mn, Pb, Se, Ti Only	Audrey Crafton	10/14/19	12:30	Yda Luman	10/14/19	12:30	Received on ice (Y/N) Custody (Y/N) Sealed Cooler (Y/N) Intact Samples (Y/N)
							TEMP in C 9.9

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Audrey Crafton
 SIGNATURE of SAMPLER:

DATE Signed: 10/14/19



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: **2623967**

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

PM: BM Due Date: 11/01/19

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

CLIENT: **GAPower-CCR**

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 23 Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 9.9 Biological Tissue is Frozen: Yes No

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

Temp should be above freezing to 6°C Comments: _____

Chain of Custody Present:	<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: _____

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

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 11, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2625773

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 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
kevin.herring@pacelabs.com
(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: Plant Bowen Ash Pond

Pace Project No.: 2625773

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 Bowen Ash Pond

Pace Project No.: 2625773

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2625773001	BGWC-32	Water	11/15/19 12:38	11/16/19 09:55

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond
Pace Project No.: 2625773

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2625773001	BGWC-32	EPA 6020B	CSW	3
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2625773

Sample: BGWC-32		Lab ID: 2625773001		Collected: 11/15/19 12:38		Received: 11/16/19 09:55		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							
Boron	6.3	mg/L	2.0	0.25	50	11/21/19 11:13	11/23/19 22:51	7440-42-8	
Calcium	346	mg/L	5.0	0.55	50	11/21/19 11:13	11/23/19 22:51	7440-70-2	
Cobalt	0.0077	mg/L	0.0050	0.00030	1	11/21/19 11:13	11/23/19 22:46	7440-48-4	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1540	mg/L	10.0	10.0	1		11/18/19 21:43		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	455	mg/L	50.0	1.2	50		11/23/19 05:33	16887-00-6	
Fluoride	0.51	mg/L	0.30	0.029	1		11/22/19 23:17	16984-48-8	
Sulfate	413	mg/L	50.0	0.85	50		11/23/19 05:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2625773

QC Batch:	39293	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET
Associated Lab Samples:	2625773001		

METHOD BLANK: 178613 Matrix: Water

Associated Lab Samples: 2625773001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0049	11/23/19 20:22	
Calcium	mg/L	ND	0.10	0.011	11/23/19 20:22	
Cobalt	mg/L	ND	0.0050	0.00030	11/23/19 20:22	

LABORATORY CONTROL SAMPLE: 178614

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.99	99	80-120	
Calcium	mg/L	1	0.93	93	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 178615 178616

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		2625766001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Boron	mg/L	104 ug/L	1	1	1.0	1.1	93	98	75-125	5	20		
Calcium	mg/L	18900 ug/L	1	1	18.7	19.0	-27	5	75-125	2	20		
Cobalt	mg/L	0.35J ug/L	0.1	0.1	0.095	0.095	94	95	75-125	1	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2625773

QC Batch:	39115	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	2625773001		

LABORATORY CONTROL SAMPLE: 177706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 177707

Parameter	Units	2625319001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	129000 ug/L	122	6	10	H1

SAMPLE DUPLICATE: 177708

Parameter	Units	2625813001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L		296000			

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 Bowen Ash Pond
Pace Project No.: 2625773

QC Batch: 39450 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2625773001

METHOD BLANK: 179269 Matrix: Water
Associated Lab Samples: 2625773001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.024	11/22/19 19:15	
Fluoride	mg/L	ND	0.30	0.029	11/22/19 19:15	
Sulfate	mg/L	ND	1.0	0.017	11/22/19 19:15	

LABORATORY CONTROL SAMPLE: 179270

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.8	96	90-110	
Fluoride	mg/L	5	4.9	97	90-110	
Sulfate	mg/L	5	5.2	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 179271 179272

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2625875001 Result	Spike Conc.	Spike Conc.	MS Result						
Chloride	mg/L	88.1	10	10	71.7	71.9	-164	-162	90-110	0	15 M1
Fluoride	mg/L	0.37	10	10	8.2	8.9	79	85	90-110	7	15 M1
Sulfate	mg/L	38.4	10	10	40.8	41.0	24	26	90-110	1	15 M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2625773

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

H1 Analysis conducted outside the EPA method holding time.

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 Bowen Ash Pond
Pace Project No.: 2625773

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2625773001	BGWC-32	EPA 3005A	39293	EPA 6020B	39325
2625773001	BGWC-32	SM 2540C	39115		
2625773001	BGWC-32	EPA 300.0	39450		

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: Georgia Power - Coal Combustion Residuals

Section B Required Project Information: Report To: Jody Abraham

Section C Invoice Information: Attention: Company Name: Address:

Company: 2480 Warner Road Atlanta, GA 30339
Email: j Abraham@southemco.com
Phone: (404) 506-7239 Fax:
Purchase Order #: SCS10348606
Project Name: Plant Bowen Ash Pond
Requested Due Date: Project #: Pace Project Manager: Kevin.herrina@pacelabs.com
Pace Profile #: 315
Regulatory Agency: GA
State / Location: GA

Main table with columns: ITEM #, SAMPLE ID, MATRIX CODE, SAMPLE TYPE, COLLECTED (Date/Time), SAMPLE TEMP AT COLLECTION, # OF CONTAINERS, Preservatives, Analyses Test, Requested Analysis Filtered (Y/N), Residual Chlorine (Y/N), and SAMPLE CONDITIONS.

W0#: 2625773
Barcode
2625773

SAMPLER NAME AND SIGNATURE: Kevin Stegmann
PRINT Name of SAMPLER: Kevin Stegmann
SIGNATURE of Sampler: [Signature]
DATE Signed: 11/16/15
TEMP in C: 2
Received on ice (Y/N): Y
Custody Sealed Cooler (Y/N): Y
Samples Intact (Y/N): Y



Client Name: _____

WO# : 2625773
PM: KH Due Date: 11/25/19
CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used TH2083 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 3.4
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: _____

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 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input 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:		
All containers needing preservation have been checked.	<input 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 type="checkbox"/> No	Initial when completed
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: _____

3000 W28

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)

F-ALLC003rev.3, 11September2006

December 18, 2019

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

RE: Project: Plant Bowen Ash Pond
Pace Project No.: 2626777

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 13, 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
kevin.herring@pacelabs.com
(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Bowen Ash Pond
Pace Project No.: 2626777

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 Bowen Ash Pond

Pace Project No.: 2626777

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2626777001	BGWC-39	Water	12/13/19 10:52	12/13/19 13:49

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Bowen Ash Pond

Pace Project No.: 2626777

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2626777001	BGWC-39	EPA 6020B	CSW	3
		SM 2320B	S1A	3
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Bowen Ash Pond
Pace Project No.: 2626777

Sample: BGWC-39		Lab ID: 2626777001		Collected: 12/13/19 10:52		Received: 12/13/19 13:49		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							
Boron	13.4	mg/L	2.0	0.25	50	12/13/19 14:03	12/13/19 17:31	7440-42-8	
Calcium	558	mg/L	25.0	2.7	250	12/13/19 14:03	12/13/19 17:37	7440-70-2	
Cobalt	0.0033J	mg/L	0.0050	0.00030	1	12/13/19 14:03	12/13/19 17:25	7440-48-4	
		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	12/16/19 09:05	12/16/19 14:48	7439-97-6	
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Bicarbonate (CaCO ₃)	130	mg/L	20.0	20.0	1		12/17/19 10:57		
Alkalinity, Carbonate (CaCO ₃)	ND	mg/L	20.0	20.0	1		12/17/19 10:57		
Alkalinity, Total as CaCO ₃	130	mg/L	20.0	20.0	1		12/17/19 10:57		
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	2550	mg/L	10.0	10.0	1		12/16/19 12:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	703	mg/L	100	2.4	100		12/17/19 16:42	16887-00-6	M1
Fluoride	0.16J	mg/L	0.30	0.029	1		12/17/19 14:07	16984-48-8	M1
Sulfate	651	mg/L	100	1.7	100		12/17/19 16:42	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2626777

QC Batch: 40510 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2626777001

METHOD BLANK: 184251 Matrix: Water
Associated Lab Samples: 2626777001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	12/16/19 14:15	

LABORATORY CONTROL SAMPLE: 184252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 184253 184254

Parameter	Units	184253		184254		% Rec	MSD	% Rec	MSD	% Rec	Limits	RPD	Max RPD	Qual
		2626777001	MS Spike Conc.	MSD Spike Conc.	MS Result									
Mercury	mg/L	ND	0.0025	0.0025	0.0021	0.0020	84	78	75-125	6	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 Bowen Ash Pond
Pace Project No.: 2626777

QC Batch: 40431 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2626777001

METHOD BLANK: 183857 Matrix: Water
Associated Lab Samples: 2626777001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0049	12/13/19 16:01	
Calcium	mg/L	ND	0.10	0.011	12/13/19 16:01	
Cobalt	mg/L	0.00031J	0.0050	0.00030	12/13/19 16:01	

LABORATORY CONTROL SAMPLE: 183858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.1	106	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Cobalt	mg/L	0.1	0.11	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 183859 183860

Parameter	Units	2626583001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.072	1	1	1.1	1.1	104	103	75-125	0	20	
Calcium	mg/L	9.6	1	1	10.6	10.7	106	115	75-125	1	20	
Cobalt	mg/L	0.00072J	0.1	0.1	0.11	0.10	108	104	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2626777

QC Batch: 40647 Analysis Method: SM 2320B
QC Batch Method: SM 2320B Analysis Description: 2320B Alkalinity
Associated Lab Samples: 2626777001

METHOD BLANK: 184966 Matrix: Water
Associated Lab Samples: 2626777001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	ND	20.0	20.0	12/17/19 10:48	

LABORATORY CONTROL SAMPLE: 184967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	100	103	103	85-115	

SAMPLE DUPLICATE: 184968

Parameter	Units	2626777001 Result	Dup Result	RPD	Max RPD	Qualifiers
Alkalinity, Total as CaCO ₃	mg/L	130	134	3	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond

Pace Project No.: 2626777

QC Batch:	40575	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
Associated Lab Samples:	2626777001		

LABORATORY CONTROL SAMPLE: 184658

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	415	104	84-108	

SAMPLE DUPLICATE: 184659

Parameter	Units	2626800005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	159	150	6	10	

SAMPLE DUPLICATE: 184660

Parameter	Units	2626800003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	70.0	67.0	4	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Bowen Ash Pond
Pace Project No.: 2626777

QC Batch: 40677 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2626777001

METHOD BLANK: 185069 Matrix: Water
Associated Lab Samples: 2626777001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.027J	1.0	0.024	12/17/19 18:55	
Fluoride	mg/L	0.070J	0.30	0.029	12/17/19 18:55	
Sulfate	mg/L	ND	1.0	0.017	12/17/19 18:55	

LABORATORY CONTROL SAMPLE: 185070

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.6	93	90-110	
Fluoride	mg/L	5	4.6	91	90-110	
Sulfate	mg/L	5	4.5	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 185071 185072

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2626777001 Result	Spike Conc.	Spike Conc.	Conc.								
Chloride	mg/L	703	10	10	10	271	272	-4320	-4310	90-110	0	15	M1
Fluoride	mg/L	0.16J	10	10	10	8.0	7.9	78	77	90-110	1	15	M1
Sulfate	mg/L	651	10	10	10	342	342	-3090	-3090	90-110	0	15	M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Bowen Ash Pond

Pace Project No.: 2626777

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

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 Bowen Ash Pond
Pace Project No.: 2626777

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2626777001	BGWC-39	EPA 3005A	40431	EPA 6020B	40445
2626777001	BGWC-39	SM 2320B	40647		
2626777001	BGWC-39	SM 2540C	40575		
2626777001	BGWC-39	EPA 300.0	40677		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 2626777

Client Name: GAPower

PM: KH Due Date: 12/20/19 CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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

Proj. Due Date: _____
Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 083 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 5.2 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: _____

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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input 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 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>WT</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 checked="" 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 checked="" type="checkbox"/> No <input 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: _____

3000 W28

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 31, 2019

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

RE: Project: PLANT ASH POND
Pace Project No.: 2626961

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on December 16, 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
kevin.herring@pacelabs.com
(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Whitney Law, Geosyntec Consultants
Noelia Muskus, Geosyntec Consultants
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT ASH POND

Pace Project No.: 2626961

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 ASH POND
Pace Project No.: 2626961

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2626961001	BGWC-40	Water	12/16/19 14:31	12/16/19 17:09

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT ASH POND
Pace Project No.: 2626961

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2626961001	BGWC-40	EPA 6020B	CSW	2
		SM 2540C	SK1	1
		EPA 300.0	MWB	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT ASH POND
Pace Project No.: 2626961

Sample: BGWC-40		Lab ID: 2626961001		Collected: 12/16/19 14:31	Received: 12/16/19 17:09	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								
Boron	2.5	mg/L	0.040	0.0049	1	12/23/19 19:54	12/24/19 18:26	7440-42-8		
Calcium	162	mg/L	5.0	0.55	50	12/23/19 19:54	12/24/19 18:32	7440-70-2	M6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	753	mg/L	10.0	10.0	1		12/18/19 19:53			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	254	mg/L	20.0	0.48	20		12/30/19 22:27	16887-00-6	M1	
Fluoride	0.13J	mg/L	0.30	0.029	1		12/28/19 01:45	16984-48-8	L2,M0	
Sulfate	60.4	mg/L	20.0	0.34	20		12/30/19 22:27	14808-79-8	M1	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT ASH POND

Pace Project No.: 2626961

QC Batch: 41105	Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A	Analysis Description: 6020B MET
Associated Lab Samples: 2626961001	

METHOD BLANK: 187463 Matrix: Water

Associated Lab Samples: 2626961001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0049	12/24/19 18:03	
Calcium	mg/L	ND	0.10	0.011	12/24/19 18:03	

LABORATORY CONTROL SAMPLE: 187464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	103	80-120	
Calcium	mg/L	1	1.0	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 187465 187466

Parameter	Units	2626961001		187466		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Boron	mg/L	2.5	1	1	3.4	3.5	84	95	75-125	3	20
Calcium	mg/L	162	1	1	165	162	309	31	75-125	2	20 M6

SAMPLE DUPLICATE: 187467

Parameter	Units	2627176001 Result	Dup Result	RPD	Max RPD	Qualifiers
Boron	mg/L	ND	0.035J		20	
Calcium	mg/L	65000 ug/L	63.5	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT ASH POND

Pace Project No.: 2626961

QC Batch: 40807	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2626961001	

LABORATORY CONTROL SAMPLE: 185820

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	398	100	84-108	

SAMPLE DUPLICATE: 185821

Parameter	Units	2626800051 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	141	145	3	10	

SAMPLE DUPLICATE: 185822

Parameter	Units	2626806003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	79.0	78.0	1	10	

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QUALITY CONTROL DATA

Project: PLANT ASH POND

Pace Project No.: 2626961

QC Batch: 41303	Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0	Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2626961001	

METHOD BLANK: 188051 Matrix: Water
Associated Lab Samples: 2626961001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.024	12/28/19 01:01	
Fluoride	mg/L	ND	0.30	0.029	12/28/19 01:01	
Sulfate	mg/L	ND	1.0	0.017	12/28/19 01:01	

LABORATORY CONTROL SAMPLE: 188052

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5	4.6	92	90-110	
Fluoride	mg/L	5	4.4	88	90-110 L2	
Sulfate	mg/L	5	4.9	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 188053 188054

Parameter	Units	2626961001		188054		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	254	10	10	143	143	-1120	-1120	90-110	0	15 M1
Fluoride	mg/L	0.13J	10	10	8.4	8.4	83	82	90-110	1	15 M0
Sulfate	mg/L	60.4	10	10	105	105	445	445	90-110	0	15 M1

MATRIX SPIKE SAMPLE: 188055

Parameter	Units	2626927001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L		9.9	10	11.9	20	90-110 M1
Fluoride	mg/L		2.0	10	10.4	84	90-110 M0
Sulfate	mg/L		ND	10	ND	0	90-110 M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: PLANT ASH POND

Pace Project No.: 2626961

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

- | | |
|----|--|
| L2 | Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low. |
| M0 | Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits. |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| 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 ASH POND
Pace Project No.: 2626961

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2626961001	BGWC-40	EPA 3005A	41105	EPA 6020B	41107
2626961001	BGWC-40	SM 2540C	40807		
2626961001	BGWC-40	EPA 300.0	41303		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Rec
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant

WO# : 2626961
2626961

Section A
Required Client Information:

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

Section B
Required Project Information:

Report To: Jaiu Abraham
Copy To: Whitney Law Geosynetic
Purchase Order #: SCS10382775
Project Name: Plant Ash Pond
Project #:

Section C
Invoice Information:

Attention: Kevin Herring
Company Name: Pace Project Manager
Address: Pace Quote:
Pace Project Manager kevin.herring@paceallabs.com
Pace Profile #: 327 (AP)

Regulatory Agency

State / Location
GA

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique	MATRIX	CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED			SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test	Y/N	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)													
						START DATE	TIME	END DATE			UNPRESERVED	H2SO4	HNO3	HCl	NaOH + Zn Ac	Na2S2O3	Methanol									Other												
1	BGWC-40	Drinking Water	DW	WT G	G	12/16/2019	1431		2	1	1																											
2		Water	WT																																			
3		Waste Water	WW																																			
4		Product	P																																			
5		Solid	SL																																			
6		Oil	OL																																			
7		Wipe	WP																																			
8		Air	AR																																			
9		Other	OT																																			
10																																						
11																																						
12																																						

ADDITIONAL COMMENTS: *Use Booth*

RELINQUISHED BY / AFFILIATION: *Alk*

DATE: *12/16/19*

TIME: *1709*

ACCEPTED BY / AFFILIATION: *1 Pace*

DATE: *12/16/19*

TIME: *1709*

TEMP in C

Received on Ice (Y/N)

Custody Sealed Cooler (Y/N)

Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE: *Joe Booth*

PRINT Name of SAMPLER: *Joe Booth*

SIGNATURE of SAMPLER: *Joe Booth*

DATE Signed: *12/16/19*

Client Name: Georgia Power

WO#: **2626961**

PM: KH

Due Date: 12/24/19

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Otr

Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used T162083 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 5.8°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: S 12.16.19

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 type="checkbox"/> No <input checked="" type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" 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>WT</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 type="checkbox"/> No	Initial when completed <u>S</u> 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: _____

3000 W28

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)

Data Validation Reports
(Pending 2019 2nd semester)

Memorandum

Date: June 7, 2019
To: Whitney Law
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validations - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 2615445, 2615446, 2615499, 26115500, 2615551, 2615552, 2615560, 2615561, 2615876, 2615877 and 2615880**

SITE: Plant Bowen Ash Pond

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of eighteen aqueous samples, two duplicate samples, two field blanks and two equipment blanks collected between 25 February 2019 and 6 March 2019, as part of the Plant Bowen Ash Pond on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Peachtree Corners, Georgia, for the following analytical tests:

- Fluoride by Environmental Protection Agency (EPA) Method 300.0
- Metals by EPA Method 3005A/6020B
- Mercury by EPA Method 7470A

The samples were analyzed at Pace Analytical Services, LLC, Greensburg, Pennsylvania, for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Total radium by calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- United States (US) EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
2615445001	BGWA-2
2615445002	BGWC-8
2615445003	BGWC-16
2615446001	BGWA-2
2615446002	BGWC-8
2615446003	BGWC-16
2615499001	BGWA-29
2615499002	BGWC-17
2615499003	BGWC-18
2615499004	BGWC-20
2615499005	Dup-1
2615500001	BGWA-29
2615500002	BGWC-17
2615500003	BGWC-18
2615500004	BGWC-20
2615500005	Dup-1
2615551001	BGWC-10
2615551002	BGWC-7
2615551003	BGWC-12
2615552001	BGWC-10
2615552002	BGWC-7
2615552003	BGWC-12
2615560001	BGWC-30
2615560002	BGWC-22

Laboratory ID	Client ID
2615560003	BGWC-24
2615560004	BGWC-25
2615560005	BGWC-19
2615560006	BGWC-23
2615560007	Dup-2
2615560008	FBL030119
2615560009	EQBL030119
2615561001	BGWC-30
2615561002	BGWC-22
2615561003	BGWC-24
2615561004	BGWC-25
2615561005	BGWC-19
2615561006	BGWC-23
2615561007	Dup-2
2615561008	FBL030119
2615561009	EQBL030119
2615876001	BGWC-14
2615876002	FBL030619
2615876003	EQBL030619
2615877001	BGWC-14
2615877002	FBL030619
2615877003	EQBL030619
2615880001	BGWC-34D

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

The following issues were noted on the chain of custody (COC) forms; these issues did not result in qualifications:

- 2615445, 2615446, 2615499 and 2615500: The *relinquished by* years were missing from the COC forms.
- 2615445 and 2615446: There was a discrepancy in the date and time for the first sample relinquishing. The *relinquished by* time was documented as 2/27 1:34 and the *received by* time was documented as 2/27/19 1543.
- 2615499 and 2615500: There was a discrepancy in the date and time for the first sample relinquishing. The *relinquished by* time was documented as 2/28 1:23 and the *received by* time was documented as 2/28/19 1700.
- 2615499, 2615500, 2615560 and 2615561: Collection times were not listed for the field duplicates, Dup-1 and Dup-2. The field duplicates were logged in with the collection times of 00:00.
- 2615551 and 2615552: Incorrect error corrections were observed on the COC, instead of the proper procedure of a single strike through, correction, and initials and date of person making the corrections.
- 2615551: and 2615552 Analyses for total dissolved solid (TDS), chloride and sulfate were requested on the COC. These analyses were not reported per the client's request.

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ⊗ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported (batches 23515, 23567, 23687, 23688 and 24189). Metals were not detected in the method blanks above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three sample set specific MS/MSD pairs were reported using samples BGWA-2, BGWC-10 and BGWC-23. The recovery and relative percent difference (RPD) results were within the laboratory and SOP specified acceptance criteria.

Two batch MS/MSD pairs were reported. Since these were batch QC there was no impact on this data and qualifications were not applied.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Field Blank

Two field blanks, FBL030119 and FBL030619, were collected with the sample set. Metals were not detected in the field blanks above the MDLs, with the following exception.

Lithium was detected in FBL030619 at an estimated concentration greater than the MDL and less than the reporting limit (RL). Therefore, the lithium concentrations in the associated samples less

than five times the field blank concentration were U* qualified as not detected at the reported concentration.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
BGWC-20	Lithium	0.015	J	0.015	U*	BF
BGWC-10	Lithium	0.0017	J	0.0017	U*	BF
BGWC-7	Lithium	0.0086	J	0.0086	U*	BF
BGWC-12	Lithium	0.0011	J	0.0011	U*	BF
BGWC-30	Lithium	0.0044	J	0.0044	U*	BF
BGWC-24	Lithium	0.0068	J	0.0068	U*	BF
GWA-56	Lithium	0.0015	J	0.0015	U*	BF

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

* Validation qualifiers are defined in Attachment 1 at the end of this report

**Reason codes are defined in Attachment 2 at the end of this report

1.7 Equipment Blank

Two equipment blanks, EQBL030119 and EQBL030619, were collected with the sample set. Metals were not detected in the equipment blanks above the MDLs.

1.8 Field Duplicate

Two field duplicates, Dup-1 and Dup-2, were collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or difference $< RL$) was demonstrated between the field duplicates and the original samples BGWA-29 and BGWC-22, respectively.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated nondetect results were not reported.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. The laboratory flag D3 used in the level II reports was not included in the EDDs. In addition, there were several laboratory report specific EDDs that included project data for samples from a different laboratory report or analytes included in the EDDs that were not requested or reported in the laboratory report when the sample was used for laboratory batch QC (i.e. if the sample was used for the MS/MSD analyses). No other discrepancies were identified between the level II reports and the EDDs.

2.0 MERCURY

The samples were analyzed for mercury by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ⊗ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (batches 23344, 23510, 23535 and 24123). Mercury was not detected in the method blanks above the MDL, with the following exceptions.

2615499, 2615551 and 2615560: Mercury was detected at estimated concentrations greater than the MDL and less than the RL in the method blanks in batches 23510 and 23535. Therefore, the

mercury concentrations in the associated samples less than five times the method blank concentration were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWA-29	Mercury	0.000065	J	0.000065	U*	BL
BGWC-18	Mercury	0.000079	J	0.000079	U*	BL
BGWC-20	Mercury	0.000066	J	0.000066	U*	BL
Dup-1	Mercury	0.000054	J	0.000054	U*	BL
BGWC-10	Mercury	0.000048	J	0.000048	U*	BL
BGWC-7	Mercury	0.000053	J	0.000053	U*	BL
BGWC-12	Mercury	0.000058	J	0.000058	U*	BL
BGWC-30	Mercury	0.00010	J	0.00010	U*	BL
BGWC-22	Mercury	0.000042	J	0.000042	U*	BL
BGWC-25	Mercury	0.000047	J	0.000047	U*	BL
BGWC-19	Mercury	0.000050	J	0.000050	U*	BL
BGWC-23	Mercury	0.000044	J	0.000044	U*	BL
Dup-2	Mercury	0.000047	J	0.000047	U*	BL
FBL030119	Mercury	0.000047	J	0.000047	U*	BL
EQBL030119	Mercury	0.000043	J	0.000043	U*	BL

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three sample set specific MS/MSD pairs were reported using samples BGWA-2, BGWC-10 and BGWC-14. The recovery and RPD results were within the laboratory and SOP specified acceptance criteria.

One batch MS/MSD pair was also reported. Since these were batch QC there was no impact on this data and qualifications were not applied.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

2.6 Field Blank

Two field blanks, FBL030119 and FBL030619, were collected with the sample set. Mercury was not detected in the field blanks above the MDL, with the following exception.

Mercury was detected in FBL030119 at an estimated concentration greater than the MDL and less than the RL. Since the mercury concentration in FBL030119 was U* qualified as not detected due to method blank contamination, no additional qualifications were applied to the data, based on professional and technical judgment.

2.7 Equipment Blank

Two equipment blanks, EQBL030119 and EQBL030619, were collected with the sample set. Mercury was not detected in the equipment blanks above the MDL, with the following exception.

Mercury was detected in EBL030119 at an estimated concentration greater than the MDL and less than the RL. Since the mercury concentration in EBL030119 was U* qualified as not detected due to method blank contamination, no additional qualifications were applied to the data, based on professional and technical judgment.

2.8 Field Duplicate

Two field duplicates, Dup-1 and Dup-2, were collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or difference $< RL$) was demonstrated between the field duplicates and the original samples BGWA-29 and BGWC-22, respectively.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. The laboratory flag B used in the level II reports was not included in the EDDs. In addition, there were several laboratory report specific EDDs that included project data for samples from a different laboratory report or analytes included in the EDDs that were not requested or reported in the laboratory report when the sample was used for laboratory batch QC (i.e. if the sample was used for the MS/MSD analyses). No other discrepancies were identified between the level II reports and the EDDs.

3.0 FLUORIDE

The samples were analyzed for fluoride by EPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues

were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverable Review

3.1 Overall Assessment

The fluoride data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the fluoride analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported (batches 23493, 23494, 23823, 23574 and 24135). Fluoride was not detected in the method blanks above the MDL.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three sample set specific MS/MSD pairs were reported using samples BGWA-2, BGWA-29 and BGWC-14 and three sample set specific MSs were reported using samples BGWC-8, BGWC-17 and FBL030619. The recovery and RPD results were within the laboratory and SOP specified acceptance criteria, with the following exceptions.

The recoveries of fluoride were low and outside the laboratory and SOP specified acceptance criteria in the MS/MSD pair using sample BGWA-29. Therefore, the fluoride concentrations were

J qualified as estimated and the non-detect results were UJ qualified as estimated less than the MDL in the associated samples.

One batch MS and one batch MS/MSD pair were also reported. Since these were batch QC there was no impact on this data and qualifications were not applied.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWA-29	Fluoride	0.029	U	0.029	UJ	M-
BGWC-17	Fluoride	0.26	J	0.26	J	M-
BGWC-18	Fluoride	0.029	U	0.029	UJ	M-
BGWC-20	Fluoride	0.13	J	0.13	J	M-
Dup-1	Fluoride	0.029	U	0.029	UJ	M-

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

U-not detected at or above the MDL

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Field Blank

Two field blanks, FBL030119 and FBL030619, were collected with the sample set. Fluoride was not detected in the field blanks above the MDL.

3.7 Equipment Blank

Two equipment blanks, EQBL030119 and EQBL030619, were collected with the sample set. Fluoride was not detected in the equipment blanks above the MDL.

3.8 Field Duplicate

Two field duplicates, Dup-1 and Dup-2, were collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or difference $< RL$) was demonstrated between the field duplicates and the original samples BGWA-29 and BGWC-22, respectively.

3.9 Sensitivity

The samples were reported to the MDL. No elevated nondetect results were reported.

3.10 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. The laboratory flag M1 used in the level II reports was not included in the EDDs. In addition, there were several laboratory report specific EDDs that included project data for samples from a different laboratory report or analytes included in the EDDs that were not requested or reported in the laboratory report when the sample was used for laboratory batch QC (i.e. if the sample was used for the MS/MSD analyses). No other discrepancies were identified between the level II reports and the EDDs.

4.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

4.1 Overall Assessment

The radium-226 and radium-228 data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as

estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

4.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

4.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported for the radium-228 data (batches 332854, 332855, 334689 and 334690). Four method blanks were reported for the radium-226 data (batches 332626, 332856, 332857 and 333523). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs), with the following exceptions.

2615446: Radium-226 was detected at a concentration greater than the MDC in the method blank in batch 332626. Therefore, the radium-226 concentrations in the associated samples that were greater than the method blank concentration and with normalized absolute differences (NADs) less than 2.58 were U* qualified as not detected at the reported concentrations.

2615500, 2615552 and 2615561: Radium-226 was detected at a concentration greater than the MDC in the method blank in batch 332856. Therefore, the radium-226 concentrations in the associated samples that were greater than the method blank concentration and with NADs less than 2.58 were U* qualified as not detected at the reported concentrations.

2615561: Radium-226 was detected at a concentration greater than the MDC in the method blank in batch 332857. Therefore, the radium-226 concentration in the associated sample that was greater than the method blank concentration and with an NAD less than 2.58 was U* qualified as not detected at the reported concentration.

2615877: Radium-228 was detected at a concentration greater than the MDC in the method blank in batch 334690. Since radium-228 was not detected above the MDC in the associated samples, no qualifications were applied to the data.

In addition, the combined radium-226 + 228 concentrations were qualified as following:

- Combined radium-226 + 228 concentrations with radium-228 less than the MDC and the radium-226 U* qualified as not detected at the reported concentration were also U* qualified as not detected at the reported concentration.
- Combined radium-226 + 228 concentration with a radium-226 concentration that was U* qualified as not detected at the reported concentration and a radium-228 concentration greater than the MDC was J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BGWA-2	Radium-226	1.10	NA	1.10	U*	BL
BGWA-2	Combined Radium 226 + 228	1.43	NA	1.43	U*	BL
BGWC-16	Radium-226	0.606	NA	0.606	U*	BL
BGWC-16	Combined Radium 226 + 228	1.08	NA	1.08	U*	BL
BGWA-29	Radium-226	0.343	NA	0.343	U*	BL
BGWC-17	Radium-226	0.430	NA	0.430	U*	BL
BGWC-17	Combined Radium 226 + 228	1.57	NA	1.57	J	BL
BGWC-18	Radium-226	0.519	NA	0.519	U*	BL
BGWC-18	Combined Radium 226 + 228	1.12	NA	1.12	U*	BL
BGWC-20	Radium-226	0.986	NA	0.986	U*	BL
BGWC-20	Combined Radium 226 + 228	1.24	NA	1.24	U*	BL
Dup-1	Radium-226	0.401	NA	0.401	U*	BL
Dup-1	Combined Radium 226 + 228	0.989	NA	0.989	U*	BL
BGWC-7	Radium-226	0.883	NA	0.883	U*	BL
BGWC-7	Combined Radium 226 + 228	1.38	NA	1.38	U*	BL
BGWC-12	Radium-226	0.461	NA	0.461	U*	BL
BGWC-12	Combined Radium 226 + 228	1.04	NA	1.04	U*	BL
BGWC-25	Radium-226	0.324	NA	0.324	U*	BL
BGWC-19	Radium-226	0.515	NA	0.515	U*	BL
FBL030119	Radium-226	0.309	NA	0.309	U*	BL
EQBL030119	Radium-226	0.657	NA	0.657	U*	BL
EQBL030119	Combined Radium 226 + 228	1.07	NA	1.07	U*	BL

pCi/L- picocuries per liter

NA-not applicable

4.4 Matrix Spike/Matrix Spike Duplicate

MS/MSD pairs were not reported with the data.

4.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs and two LCS/LCS duplicate (LCSD) pairs were reported for radium-226. One LCS and three LCS/LCSD pairs were reported for radium-228. The recovery and replicate error ratio (RER) [2 sigma (2σ)] results were within the laboratory and SOP specified acceptance criteria.

4.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for radium-226 using sample EQBL030119. One sample set specific laboratory duplicate was reported for radium-228 using sample BGWC-22. The RER (2σ) results were within the laboratory and SOP specified acceptance criteria.

Three batch laboratory duplicates were also reported for radium-226. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

4.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

4.8 Equipment Blank

Two equipment blanks were collected with the sample sets, EQBL030119 and EQBL030619. Radium-226 and Radium-228 were not detected in the equipment blanks above the MDCs, with the following exceptions.

Radium-226 was detected at concentrations greater than the MDC in EBL030119 and EQBL030619. Since the radium-226 concentrations in the associated samples were either U* qualified due to method blank contamination or had an NAD > 2.58, no additional qualifications were applied to the data, based on professional and technical judgment.

4.9 Field Blank

Two field blanks were collected with the sample sets, FBL030119 and FBL030619. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs, with the following exception.

Radium-226 was detected at a concentration greater than the MDC in FBL030119. Since the radium-226 concentration in FBL030119 was U* qualified due to method blank contamination, no additional qualifications were applied to the data, based on professional and technical judgment.

4.10 Field Duplicate

Two field duplicates, Dup-1 and Dup-2, were collected with the sample set. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicates and the original samples BGWA-29 and BGWC-22, respectively.

4.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

4.12 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U* This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- 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.
- 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.
- R The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- 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.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.

Memorandum

Date: June 7, 2019
To: Whitney Law
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validations - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 2617064, 2617065, 2617076, 2617077, 2617079, 2617080, 2617082, 2617084, 2617086 and 2617087**

SITE: Plant Bowen Ash Pond

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twenty-six aqueous samples, three duplicate samples, three field blanks and three equipment blanks collected between 1-5 April 2019, as part of the Plant Bowen Ash Pond on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by Environmental Protection Agency (EPA) Method 3005A/6020B
- Mercury by EPA Method 7470A
- Anions (Chloride, Fluoride and Sulfate) by EPA Method 300.0
- Total Dissolved Solids (TDS) by Standard Method 2540C

The samples were analyzed at Pace Analytical Services, LLC, Greensburg, Pennsylvania, for the following analytical tests:

- Radium-226 by EPA Method 9315
- Radium-228 by EPA Method 9320
- Total radium by calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012); and,
- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
2617064001	BGWC-32
2617065001	BGWC-32
2617076001	BGWA-33
2617076002	BGWC-19
2617076003	BGWC-20
2617076004	BGWC-21
2617076005	BGWC-22
2617076006	BGWC-23
2617076007	BGWC-24
2617076008	FBL040319
2617076009	EQBL040319
2617077001	BGWA-33
2617077002	BGWC-19
2617077003	BGWC-20
2617077004	BGWC-21
2617077005	BGWC-22
2617077006	BGWC-23
2617077007	BGWC-24
2617077008	FBL040319
2617077009	EQBL040319
2617079001	BGWC-14
2617079002	BGWC-25
2617079003	BGWC-31
2617079004	BGWC-34D
2617079005	BGWC-35D
2617079006	Dup-3
2617079007	FBL040419

Laboratory ID	Client ID
2617079008	EQBL040419
2617080001	BGWC-14
2617080002	BGWC-25
2617080003	BGWC-31
2617080004	BGWC-34D
2617080005	BGWC-35D
2617080006	Dup-3
2617080007	FBL040419
2617080008	EQBL040419
2617082001	BGWC-10
2617082002	BGWC-30
2617082003	BGWC-36D
2617082004	BGWC-17
2617082005	BGWC-18
2617082006	BGWC-7
2617082007	BGWA-6
2617082008	BGWC-16
2617082009	Dup-2
2617082010	FBL040219
2617082011	EQBL040219
2617084001	BGWC-10
2617084002	BGWC-30
2617084003	BGWC-36D
2617084004	BGWC-17
2617084005	BGWC-18
2617084006	BGWC-7
2617084007	BGWA-6

Laboratory ID	Client ID
2617084008	BGWC-16
2617084009	Dup-2
2617084010	FBL040219
2617084011	EQBL040219
2617086001	BGWA-2
2617086002	BGWA-29
2617086003	BGWC-8
2617086004	BGWC-9

Laboratory ID	Client ID
2617086005	BGWC-12
2617086006	Dup-1
2617087001	BGWA-2
2617087002	BGWA-29
2617087003	BGWC-8
2617087004	BGWC-9
2617087005	BGWC-12
2617087006	Dup-1

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

The following issues were noted on the chain of custody (COC) forms; these issues did not result in qualifications:

- 2617076, 2617077, 2617079, 2617080, 2617082, 2617084, 2617086 and 2617087: The *relinquished* by signature, date and time for the second sample transfers were missing from the COC forms.
- 2617079, 2617080, 2617082, 2617084, 2617086 and 2617087: Collection times were not listed for the field duplicates, Dup-3, Dup-2 and Dup-1. The field duplicates were logged in with the collection times of 00:00.

Laboratory reports 2617064, 2617079 and 2617086 were revised on April 15, 2019 to correct the units and analyte list for the metals data per the client's request.

Laboratory report 2617076 was revised on April 13, 2019 to correct the units and analyte list for the metals data per the client's request.

Laboratory report 2617082 was revised on April 18, 2019 to correct the units for the mercury data per the client's request.

1.0 METALS

The samples were analyzed for metals by EPA methods 3005A/6020B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time

- ⊗ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ⊗ Field Blank
- ⊗ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (batches 468329, 468126, 473123 and 468328). Metals were not detected in the method blanks above the method detection limits (MDLs), with the following exception.

2617064, 2617079, 2617082 and 2617086: Arsenic was detected at an estimated concentration greater than the MDL and less than the reporting limit (RL) in the method blank in batch 468329. Therefore, the arsenic concentrations in the associated samples less than five times the method blank concentration were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
Dup-2	Arsenic	0.00012	J	0.00012	U*	BL
BGWA-29	Arsenic	0.00019	J	0.00019	U*	BL
BGWC-12	Arsenic	0.00028	J	0.00028	U*	BL

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

* Validation qualifiers are defined in Attachment 1 at the end of this report

**Reason codes are defined in Attachment 2 at the end of this report

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample Dup-2. The recovery and relative percent difference (RPD) results were within the laboratory and SOP specified acceptance criteria, with the following exceptions.

The recoveries of boron were high and outside the laboratory and SOP specified acceptance criteria and the recoveries of calcium were low and outside the laboratory and SOP specified acceptance criteria in the MS/MSD pair using sample Dup-2. Since the boron and calcium concentrations in sample Dup-2 were greater than four times the spiked concentrations, no qualifications were applied to the data, based on professional and technical judgment.

Three batch MS/MSD pairs were reported. Since these were batch QC there was no impact on this data and qualifications were not applied.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Field Blank

Three field blanks, FBL040219, FBL040319 and FBL040419, were collected with the sample sets. Metals were not detected in the field blanks above the MDLs, with the following exceptions.

Barium and calcium were detected at estimated concentrations greater than the MDLs and less than the RLs and boron (0.93 mg/L) was detected above the RL in FBL040319. Since barium and calcium were detected in the associated samples at concentrations greater than five times the field blank concentrations, no qualifications were applied to the barium and calcium data. However, the boron concentrations in the associated samples less than five times the field blank concentration were U* qualified as not detected at the reported concentrations.

Barium and boron were detected at estimated concentrations greater than the MDLs and less than the RLs in FBL040419 and FBL040219. Since barium was detected in the associated samples at concentrations greater than five times the field blank concentration, no qualifications were applied to the barium data. However, the boron concentrations in the associated samples less than five times the field blank concentration were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-32	Boron	4.6	J	4.6	U*	BF
BGWA-33	Boron	0.66	NA	0.66	U*	BF
BGWC-19	Boron	0.51	NA	0.51	U*	BF
BGWC-20	Boron	2.6	NA	2.6	U*	BF
BGWC-21	Boron	0.12	NA	0.12	U*	BF
BGWC-14	Boron	0.79	J	0.79	U*	BF
BGWC-25	Boron	0.020	J	0.020	U*	BF
BGWC-31	Boron	0.59	J	0.59	U*	BF
BGWC-34D	Boron	0.15	NA	0.15	U*	BF
Dup-3	Boron	0.076	J	0.076	U*	BF
BGWC-10	Boron	0.51	J	0.51	U*	BF
BGWC-17	Boron	0.95	J	0.95	U*	BF
BGWC-18	Boron	0.56	J	0.56	U*	BF
BGWC-7	Boron	1.4	NA	1.4	U*	BF
BGWA-6	Boron	0.037	J	0.037	U*	BF
BGWC-16	Boron	1.1	NA	1.1	U*	BF
Dup-2	Boron	0.49	J	0.49	U*	BF
BGWA-2	Boron	0.0076	J	0.0076	U*	BF
BGWA-29	Boron	0.0048	J	0.0048	U*	BF
BGWC-8	Boron	0.046	J	0.046	U*	BF
BGWC-9	Boron	0.50	NA	0.50	U*	BF
BGWC-12	Boron	0.86	J	0.86	U*	BF
Dup-1	Boron	0.013	J	0.013	U*	BF

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

NA-not applicable

1.7 Equipment Blank

Three equipment blanks, EQBL040219, EQBL040319 and EQBL040419, were collected with the sample set. Metals were not detected in the equipment blanks above the MDLs, with the following exceptions.

Calcium was detected at an estimated concentration greater than the MDL and less than the RL and boron (0.32 mg/L) was detected above the RL in EQBL040319. Since calcium was detected in the associated samples at concentrations greater than five times the field blank concentration, no qualifications were applied to the calcium data. However, the boron concentrations in the associated samples less than five times the field blank concentration were U* qualified as not detected at the reported concentration.

Barium and boron were detected at estimated concentrations greater than the MDLs and less than the RLs in EQBL040219. Since barium was detected in the associated samples at concentrations

greater than five times the field blank concentration, no qualifications were applied to the barium data. However, the boron concentrations in the associated samples less than five times the field blank concentration were U* qualified as not detected at the reported concentration.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWA-33	Boron	0.66	NA	0.66	U*	BE
BGWC-19	Boron	0.51	NA	0.51	U*	BE
BGWC-21	Boron	0.12	NA	0.12	U*	BE
BGWC-14	Boron	0.79	J	0.79	U*	BE
BGWC-25	Boron	0.020	J	0.020	U*	BE
BGWC-31	Boron	0.59	J	0.59	U*	BE
BGWC-34D	Boron	0.15	NA	0.15	U*	BE
Dup-3	Boron	0.076	J	0.076	U*	BE
BGWC-10	Boron	0.51	J	0.51	U*	BE
BGWC-17	Boron	0.95	J	0.95	U*	BE
BGWC-18	Boron	0.56	J	0.56	U*	BE
BGWC-7	Boron	1.4	NA	1.4	U*	BE
BGWA-6	Boron	0.037	J	0.037	U*	BE
BGWC-16	Boron	1.1	NA	1.1	U*	BE
Dup-2	Boron	0.49	J	0.49	U*	BE
BGWA-2	Boron	0.0076	J	0.0076	U*	BE
BGWA-29	Boron	0.0048	J	0.0048	U*	BE
BGWC-8	Boron	0.046	J	0.046	U*	BE
BGWC-9	Boron	0.50	NA	0.50	U*	BE
BGWC-12	Boron	0.86	J	0.86	U*	BE
Dup-1	Boron	0.013	J	0.013	U*	BE

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

NA-not applicable

1.8 Field Duplicate

Three field duplicates, Dup-1, Dup-2 and Dup-3, were collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or difference $< RL$) was demonstrated between the field duplicates and the original samples BGWA-2, BGWC-18 and BGWC-25, respectively.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated nondetect results were not reported.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. The laboratory flags B, M1 and M6 used in the level II reports were not included in the EDDs. In addition, there were several laboratory report specific EDDs that included project data for samples from a different laboratory report or analytes were included in the EDDs that were not requested or reported in the laboratory report when the sample was used for laboratory batch QC (i.e. if the sample was used for the MS/MSD analyses). No other discrepancies were identified between the level II reports and the EDDs.

2.0 MERCURY

The samples were analyzed for mercury by EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches 468368, 468366 and 468642). Mercury was not detected in the method blanks above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample BGWC-14. The recovery and RPD results were within the laboratory and SOP specified acceptance criteria.

Two batch MS/MSD pairs were also reported. Since these were batch QC there was no impact on this data and qualifications were not applied.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

2.6 Field Blank

Three field blanks, FBL040219, FBL040319 and FBL040419, were collected with the sample set. Mercury was not detected in the field blanks above the MDL.

2.7 Equipment Blank

Three equipment blanks, EQBL040219, EQBL040319 and EQBL040419, were collected with the sample set. Mercury was not detected in the equipment blanks above the MDL.

2.8 Field Duplicate

Three field duplicates, Dup-1, Dup-2 and Dup-3, were collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or difference $< RL$) was demonstrated between the field duplicates and the original samples BGWA-2, BGWC-18 and BGWC-25, respectively.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. There were several laboratory report specific EDDs that included project data for samples from a different laboratory report or analytes were included in the EDDs that were not requested or reported in the laboratory report when the sample was used for laboratory batch QC (i.e. if the sample was used for the MS/MSD analyses). No other discrepancies were identified between the level II reports and the EDDs.

3.0 WET CHEMISTRY

The samples were analyzed for anions (chloride, fluoride and sulfate)by EPA Method 300.0 and TDS by Standard Method 2540C.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ⊗ Field Blank
- ⊗ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverable Review

3.1 Overall Assessment

The anions data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total

number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding time for the anions analysis of a water sample is 28 days from sample collection to analysis. The holding time for the TDS analysis of a water sample is 7 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported for the anions (batches 25956, 26061, 26063 and 26064). The anions were not detected in the method blanks above the MDLs, with the following exceptions.

2617064: Chloride and sulfate were detected at estimated concentrations greater than the MDLs and less than the RLs in the method blank in batch 25956. Since chloride and sulfate were detected in the associated samples at concentrations greater than five times the method blank concentration, no qualifications were applied to the data.

2617076: Chloride (0.31 mg/L) was detected at a concentration greater than the RL in the method blank in batch 26061. Therefore, the chloride concentrations in the associated samples less than five times the method blank concentration were U* qualified as not detected at the reported concentrations.

2617079: Chloride was detected at an estimated concentration greater than the MDL and less than the RL in the method blank in batch 26063. Therefore, the chloride concentrations in the associated samples less than five times the method blank concentration were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
FBL040319	Chloride	0.31	NA	0.31	U*	BL
EQBL040319	Chloride	0.32	NA	0.32	U*	BL
FBL040419	Chloride	0.073	J	0.073	U*	BL
EQBL040419	Chloride	0.077	J	0.077	U*	BL

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

NA-not applicable

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported using samples BGWC-14 and BGWA-2 and two sample set specific MSs were reported using samples BGWC-25 and BGWA-29. The recovery and RPD results were within the laboratory and SOP specified acceptance criteria, with the following exceptions.

The recoveries of chloride and sulfate were low and outside the laboratory and SOP specified acceptance criteria in the MS/MSD pair using sample BGWC-25. Since the sulfate concentration in sample BGWC-25 was greater than four times the spiked concentration, no qualifications were applied to the sulfate data. However, the chloride concentrations in the associated samples were J qualified as estimated.

The recoveries of sulfate were low and outside the laboratory and SOP specified acceptance criteria in the MS/MSD pair using sample BGWA-2. Therefore, the sulfate concentrations in the associated samples were J qualified as estimated.

The recovery of sulfate was low and outside the laboratory and SOP specified acceptance criteria in the MS using sample BGWA-29. Therefore, the sulfate concentrations in the associated samples were J qualified as estimated.

25956 26061 batch MS and 25956 26061 batch MS/MSD pair were also reported. Since these were batch QC there was no impact on this data and qualifications were not applied.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-14	Chloride	33.7	NA	33.7	J	M-
BGWC-25	Chloride	3.8	NA	3.8	J	M-
BGWC-31	Chloride	32.7	NA	32.7	J	M-
BGWC-34D	Chloride	28.4	NA	28.4	J	M-
BGWC-35D	Chloride	605	NA	605	J	M-
Dup-3	Chloride	4.0	NA	4	J	M-
FBL040419	Chloride	0.073	J	0.073	J	M-
EQBL040419	Chloride	0.077	J	0.077	J	M-
BGWA-2	Sulfate	10.8	NA	10.8	J	M-
BGWA-29	Sulfate	5.2	NA	5.2	J	M-
BGWC-8	Sulfate	30.5	NA	30.5	J	M-
BGWC-9	Sulfate	81.4	NA	81.4	J	M-
BGWC-12	Sulfate	239	NA	239	J	M-
Dup-1	Sulfate	10.9	NA	10.9	J	M-

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

NA-not applicable

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each batch and analysis. The recovery results were within the laboratory and SOP specified acceptance criteria.

3.6 Laboratory Duplicate

Three sample set specific laboratory duplicates were reported using samples BGWC-22, BGWC-7 and BGWA-2. The recovery and RPD results were within the laboratory and SOP specified acceptance criteria, with the following exception.

The RPD of TDS in the laboratory duplicate using sample BGWA-2 was high and outside the laboratory specified acceptance criteria. Since the RPD of TDS was within the SOP specified acceptance criteria, no qualifications were applied to the data, based on professional and technical judgment.

Six batch laboratory duplicates were also reported. Since these were batch QC there was no impact on this data and qualifications were not applied.

3.7 Field Blank

Three field blanks, FBL040219, FBL040319 and FBL040419, were collected with the sample set. The wet chemistry parameters were not detected in the field blanks above the MDLs, with the following exceptions.

TDS was detected at an estimated concentration greater than the MDL and less than the RL and chloride (0.31 mg/L) was detected at a concentration greater than the RL in FBL040319. Since the chloride concentration in FBL040319 was U* qualified due to method blank contamination, no additional qualifications were applied to the chloride data. However, the TDS concentration in the associated sample less than five times the field blank concentration was U* qualified as not detected at the reported concentration.

TDS, chloride and sulfate were detected at estimated concentrations greater than the MDLs and less than the RLs in FBL040419 and FBL040219. Since the chloride concentration in FBL040419 was U* qualified due to method blank contamination and sulfate was detected in the associated samples at concentrations greater than five times the field blank concentration, no additional qualifications were applied to the chloride and sulfate data. However, the TDS concentration in the associated sample less than five times the field blank concentration was U* qualified as not detected at the reported concentration.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-24	TDS	13.0	J	13	U*	BF

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

3.8 Equipment Blank

Three equipment blanks, EQBL040219, EQBL040319 and EQBL040419, were collected with the sample set. The wet chemistry parameters were not detected in the equipment blanks above the MDLs with the following exceptions.

TDS (45.0 mg/L) and chloride (0.31 mg/L) were detected at concentrations greater than the RLs in EQBL040319. Since the chloride concentration in EBL040319 was U* qualified due to method blank contamination, no additional qualifications were applied to the chloride data. However, the TDS concentrations in the associated samples less than five times the field blank concentrations were U* qualified as not detected at the reported concentrations.

Chloride and sulfate were detected at estimated concentrations greater than the MDLs and less than the RLs in EQBL040419. Since the chloride concentration in EQBL040419 was U* qualified due to method blank contamination and sulfate was detected in the associated samples at concentrations greater than five times the equipment blank concentration, no additional qualifications were applied to the data.

TDS, chloride and sulfate were detected at estimated concentrations greater than the MDLs and less than the RLs in EQBL040219. Since chloride and sulfate were detected in the associated samples at concentrations greater than five times the field blank concentrations, no qualifications were applied to the chloride and sulfate data. However, the TDS concentrations in the associated samples less than five times the field blank concentrations were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-24	TDS	13.0	J	13	U*	BE
BGWC-25	TDS	196	NA	196	U*	BE
Dup-3	TDS	207	NA	207	U*	BE
BGWA-29	TDS	114	NA	114	U*	BE
BGWC-8	TDS	191	NA	191	U*	BE
BGWC-12	TDS	191	NA	191	U*	BE
Dup-1	TDS	178	NA	178	U*	BE

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

NA-not applicable

3.9 Field Duplicate

Three field duplicates, Dup-1, Dup-2 and Dup-3, were collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or difference $< RL$) was demonstrated between the field duplicates and the original samples BGWA-2, BGWC-18 and BGWC-25, respectively.

3.10 Sensitivity

The samples were reported to the MDL. No elevated nondetect results were reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. The laboratory flags D6, M1 and B used in the level II reports were not included in the EDDs. In addition, there were several laboratory report specific EDDs that included project data for samples from a different laboratory report or analytes were included in the EDDs that were not requested or reported in the laboratory report when the sample was used for laboratory batch QC (i.e. if the sample was used for the MS/MSD analyses). No other discrepancies were identified between the level II reports and the EDDs.

4.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ⊗ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Equipment Blank
- ⊗ Field Blank
- ✓ Field Duplicate

- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

4.1 Overall Assessment

The radium-226 and radium-228 data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

4.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

4.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported for the radium-228 data (batches 337911, 337912 and 337913). Three method blanks were reported for the radium-226 data (batches 337917, 337919 and 337921). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

4.4 Matrix Spike/Matrix Spike Duplicate

MS/MSD pairs were not reported with the data.

4.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS and two LCS/LCS duplicate (LCSD) pairs were reported for radium-226. Three LCS/LCSD pairs were reported for radium-228. The recovery and replicate error ratio (RER) [2 sigma (2σ)] results were within the laboratory and SOP specified acceptance criteria, with the following exception.

2617084: The recovery of radium-226 in the LCS in batch 337921 was high and outside the laboratory and SOP specified acceptance criteria. Therefore, the radium-226 concentrations in the associated samples were J qualified as estimated. In addition, the combined radium-226 + 228 concentrations greater than the MDC with a J qualified radium-226 component were also J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BGWC-30	Radium-226	1.18	NA	1.18	J	L+
BGWC-30	Combined Radium 226 + 228	2.29	NA	2.29	J	L+
BGWC-36D	Radium-226	1.39	NA	1.39	J	L+
BGWC-36D	Combined Radium 226 + 228	2.81	NA	2.81	J	L+
BGWC-7	Radium-226	0.675	NA	0.675	J	L+
BGWC-7	Combined Radium 226 + 228	1.57	NA	1.57	J	L+
Dup-2	Radium-226	0.642	NA	0.642	J	L+
Dup-2	Combined Radium 226 + 228	1.50	NA	1.50	J	L+
BGWA-2	Radium-226	0.616	NA	0.616	J	L+
Dup-1	Radium-226	0.668	NA	0.668	J	L+
Dup-1	Combined Radium 226 + 228	1.50	NA	1.50	J	L+

pCi/L-picocuries per liter

NA-not applicable

4.6 Laboratory Duplicate

Two sample set specific laboratory duplicates were reported for radium-226 using samples BGWC-35D and BGWC-21. The RER (2σ) results were within the laboratory and SOP specified acceptance criteria.

One batch laboratory duplicate was also reported for radium-226. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

4.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory and SOP specified acceptance criteria.

4.8 Equipment Blank

Three equipment blanks, EQBL040219, EQBL040319 and EQBL040419, were collected with the sample set. Radium-226 and Radium-228 were not detected in the equipment blanks above the MDCs.

4.9 Field Blank

Three field blanks, FBL040219, FBL040319 and FBL040419, were collected with the sample set. Radium-226 and Radium-228 were not detected in the field blanks above the MDCs, with the following exception.

Radium-228 was detected at a concentration greater than the MDC in FBL040419. Therefore, the radium-228 concentrations in the associated samples greater than the MDC with a normalized absolute difference (NAD), 2.58 were J qualified as estimated. In addition, the combined radium 226 + 228 concentrations greater than the MDC with a radium-228 component that was U* qualified as not detected were J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BGWC-32	Radium-228	1.02	NA	1.02	U*	BF
BGWC-32	Combined Radium 226 + 228	2.20	NA	2.20	J	BF
BGWC-23	Radium-228	1.10	NA	1.10	U*	BF
BGWC-23	Combined Radium 226 + 228	2.86	NA	2.86	J	BF
BGWC-24	Radium-228	1.22	NA	1.22	U*	BF
BGWC-24	Combined Radium 226 + 228	3.60	NA	3.60	J	BF
BGWC-35D	Radium-228	1.29	NA	1.29	U*	BF
BGWC-35D	Combined Radium 226 + 228	2.37	NA	2.37	J	BF
BGWC-30	Radium-228	1.11	NA	1.11	U*	BF
BGWC-30	Combined Radium 226 + 228	2.29	NA	2.29	J	BF
BGWC-36D	Radium-228	1.42	NA	1.42	U*	BF
BGWC-36D	Combined Radium 226 + 228	2.81	NA	2.81	J	BF
BGWC-7	Radium-228	0.897	NA	0.897	U*	BF
BGWC-7	Combined Radium 226 + 228	1.57	NA	1.57	J	BF
BGWC-16	Radium-228	1.22	NA	1.22	U*	BF
BGWC-16	Combined Radium 226 + 228	1.73	NA	1.73	J	BF
Dup-2	Radium-228	0.861	NA	0.861	U*	BF
Dup-2	Combined Radium 226 + 228	1.50	NA	1.50	J	BF
Dup-1	Radium-228	0.831	NA	0.831	U*	BF
Dup-1	Combined Radium 226 + 228	1.50	NA	1.50	J	BF

pCi/L-picocuries per liter

NA-not applicable

4.10 Field Duplicate

Three field duplicate samples were collected with the sample sets, Dup-1, Dup-2 and Dup-3. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicates and the original samples BGWA-2, BGWC-18 and BGWC-25, respectively.

4.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

4.12 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U* This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- 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.
- 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.
- R The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- 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.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
L+	LCS and/or LCD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.

Memorandum

Date: July 1, 2019
To: Whitney Law
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validations - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 2618160**

SITE: Plant Bowen Ash Pond

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of five aqueous samples, one field duplicate sample, one field blank and one equipment blank collected between 2-3 May 2019, as part of the Plant Bowen Ash Pond on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Silicon by US EPA Method 3010A/6010D
- Alkalinity by Standard Method 2320B
- Anions (Chloride, Fluoride and Sulfate) by US EPA Method 300.0

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory report, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- US EPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (US EPA 540-R-2017-001);

- Southern Company Services, Inc., Standard Operating Procedure (hereafter referred to as the SOP) for Level 2A Verification of Coal Combustion Residuals Data, Environmental Testing Laboratory Program, Draft, November 21, 2017, Revision 0, Prepared by Environmental Standards, Inc., Valley Forge, Pennsylvania.

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
2618160001	BGWC-22
2618160002	BGWA-2
2618160003	BGWC-38D
2618160004	BGWC-37D

Laboratory ID	Client ID
2618160005	BGWC-32
2618160006	Dup-01
2618160007	FBL-050319
2618160008	EQBL-050319

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

A collection time was not listed on the chain of custody (COC) for the field duplicate. The field duplicate was logged in with the collection time of 00:00.

The report was revised on May 23, 2019 to add the confirmation molybdenum data for sample BGWC-38D. The report was revised a second time on July 1, 2019 to remove the extra metal results for sample BGWC-22 and the confirmation molybdenum data for sample BGWC-38D.

1.0 METALS

The samples were analyzed for metals by US EPA Methods 3005A/6020B and silicon by US EPA Methods 3010A/6010D.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ⊗ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ⊗ Field Blank
- ⊗ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 27891 and 27900). Metals were not detected in the method blanks above the method detection limits (MDLs), with the following exceptions.

Magnesium (0.012 mg/L) was detected at an estimated concentration greater than the MDL and less than the reporting limit (RL) and sodium (0.16 mg/L) was detected at a concentration greater than the RL in the method blank in batch 27900. Therefore, the magnesium and sodium concentrations in the associated samples less than five times the method blank concentrations were U* qualified as not detected at the reported concentrations.

Sample	ANALYTE	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier**	Reason Code***
FBL-050319	Magnesium	0.015	J B	0.015	U*	BL
EQBL-050319	Magnesium	0.0084	J B	0.0084	U*	BL
EQBL-050319	Sodium	0.095	J B	0.095	U*	BL

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

B-laboratory flag indicating analyte was detected in the associated method blank

** Validation qualifiers are defined in Attachment 1 at the end of this report

***Reason codes are defined in Attachment 2 at the end of this report

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported, using sample BGWC-22. The recovery and relative percent difference (RPD) results were within the laboratory and SOP specified acceptance criteria, with the following exceptions.

The MS recoveries of boron and magnesium were low, and the MSD recoveries were high, outside the laboratory specified acceptance criteria. The MS/MSD recoveries of calcium, the MSD recovery of potassium and the MS recovery of sodium were low and the outside the laboratory specified acceptance criteria. Since the boron, magnesium, calcium, potassium and sodium concentrations in sample BGWC-22 were greater than four times the spiked concentrations, no qualifications were applied to the data, based on professional and technical judgment.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported. The recovery results were within the laboratory and SOP specified acceptance criteria.

1.6 Field Blank

One field blank, FBL-050319, was collected with the sample set. Metals were not detected in the field blank above the MDLs, with the following exceptions.

Boron (0.031 mg/L), calcium (0.051 mg/L) and magnesium (0.015 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs. Since calcium was detected in the associated samples at concentrations greater than five times the field blank concentration and the magnesium concentration in FBL-050319 was U* qualified as not detected at the reported concentration due to the method blank contamination, no additional qualifications were applied to the calcium and magnesium data, based on professional and technical judgment. However, the boron concentration in the associated sample less than five times the field blank concentration was U* qualified as not detected at the reported concentration.

Sample	ANALYTE	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier	Reason Code
BGWA-2	Boron	0.015	J	0.015	U*	BF

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

1.7 Equipment Blank

One equipment blank, EQBL-050319, was collected with the sample set. Metals were not detected in the equipment blank above the MDLs, with the following exceptions.

Boron (0.012 mg/L), calcium (0.088 mg/L), magnesium (0.0084 mg/L) and sodium (0.095 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs. Since calcium was detected in the associated samples at concentrations greater than five times the field blank concentration and the magnesium and sodium concentrations in FBL-050319 were U*

qualified as not detected at the reported concentrations due to the method blank contamination, no additional qualifications were applied to the calcium, magnesium and sodium data, based on professional and technical judgment. However, the boron concentration in the associated sample less than five times the field blank concentration was U* qualified as not detected at the reported concentration.

Sample	ANALYTE	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier	Reason Code
BGWA-2	Boron	0.015	J	0.015	U*	BE

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

1.8 Field Duplicate

One field duplicate, Dup-1, was collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or difference $< RL$) was demonstrated between the field duplicate and the original sample BGWC-38D.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated nondetect results were not reported.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. The laboratory flags B, M1 and M6 used in the level II reports were not included in the EDDs. In addition, the laboratory report specific EDDs included project data for samples from a different laboratory report or analytes were included in the EDDs that were not requested or reported in the laboratory report when the sample was used for laboratory batch QC (i.e. if the sample was used for the MS/MSD analyses). No other discrepancies were identified between the level II report and the EDD.

2.0 ALKALINTY AND ANIONS

The samples were analyzed for alkalinity by Standard Method 2320B and anions (chloride, fluoride and sulfate) by US EPA Method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Field Blank
- ✓ Equipment Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverable Review

2.1 Overall Assessment

The anions and alkalinity data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

2.2 Holding Times

The holding time for the anions analysis of a water sample is 28 days from sample collection to analysis. The holding time for the alkalinity analysis of a water sample is 14 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (alkalinity batches 27709 and 27817 and anions batch 27947). The anions and alkalinity were not detected in the method blanks above the MDLs, with the following exceptions.

Chloride (0.10 mg/L) and sulfate (0.022 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs in the method blank in batch 27947. Therefore, the chloride and sulfate concentrations in the associated sample less than five times the method blank concentrations were U* qualified as not detected at the reported concentrations.

Sample	ANALYTE	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier	Reason Code
FBL-050319	Chloride	0.062	J	0.062	U*	BL
FBL-050319	Sulfate	0.040	J	0.040	U*	BL

Sample	ANALYTE	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier	Reason Code
EQBL-050319	Chloride	0.29	NA	0.29	U*	BL

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

NA-not applicable

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS and one batch MS/MSD pair were reported for the anions. Since these were batch QC, there was no impact on this data and qualifications were not applied.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each batch and analysis. The recovery results were within the laboratory and SOP specified acceptance criteria.

2.6 Laboratory Duplicate

One batch laboratory duplicate was reported for alkalinity. Since these were batch QC, there was no impact on this data and qualifications were not applied.

2.7 Field Blank

One field blank, FBL-050319, was collected with the sample set. The anions were not detected in the field blank above the MDLs, with the following exceptions.

Chloride (0.062 mg/L) and sulfate (0.040 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs. Since the chloride and sulfate concentrations in FBL-050319 was U* qualified as not detected at the reported concentrations due to the method blank contamination, no additional qualifications were applied to the data, based on professional and technical judgment.

2.8 Equipment Blank

One equipment blank, EQBL-050319, was collected with the sample set. The anions were not detected in the equipment blank above the MDLs with the following exceptions.

Sulfate (0.36 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL and chloride (0.29 mg/L) was detected at a concentration greater than the RL. Since sulfate

was detected in the associated samples at concentrations greater than five times the field blank concentrations and the chloride concentration in EQBL-050319 was U* qualified as not detected at the reported concentrations due to the method blank contamination, no additional qualifications were applied to the data, based on professional and technical judgment.

2.9 Field Duplicate

One field duplicate, Dup-1, was collected with the sample set. Acceptable precision ($RPD \leq 20\%$ or difference $< RL$) was demonstrated between the field duplicate and the original sample BGWC-38D.

2.10 Sensitivity

The samples were reported to the MDLs for the anions and to the RLs for alkalinity. No elevated nondetect results were reported.

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. The laboratory flag B used in the level II reports were not included in the EDDs. In addition, the laboratory report specific EDDs included project data for samples from a different laboratory report or analytes were included in the EDDs that were not requested or reported in the laboratory report when the sample was used for laboratory batch QC (i.e. if the sample was used for the MS/MSD analyses). No other discrepancies were identified between the level II reports and the EDDs.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team per the SOP

DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit.
- U* This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.
- 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.
- 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.
- R The data are unusable. The sample results are rejected due to serious analytical deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.
- 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.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team per the SOP

Reason Code	Explanation
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
L+	LCS and/or LCD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.
M+	MS and/or MSD recoveries outside of acceptance limits. The result may be biased high.

Memorandum

Date: 14 January 2020
To: Whitney Law
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validations - Level II Data Deliverables – Pace Analytical Services, LLC Project Numbers 2623503, 2623505, 2623696, 2623697, 2623719, 2623720, 2623721, 2623722, 2623723, 2623724, 2623808, 2623809 and 2623967**

SITE: Plant Bowen Ash Pond

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twenty-seven aqueous samples, three field duplicate samples, three equipment blanks and three field blanks, collected 23 September – 4 October 2019, as part of the Plant Bowen Ash Pond on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Mercury by USEPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride, Fluoride and Sulfate by USEPA Method 300.0

The samples were analyzed at Pace Analytical Services, LLC, Greensburg, Pennsylvania, for the following analytical tests:

- Radium-226 by USEPA Method 9315
- Radium-228 by USEPA Method 9320
- Total Radium by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitations of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001); and,
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
2623503001	BGWA-2
2623503002	BGWA-29
2623503003	BGWA-6
2623503004	DUP-1
2623505001	BGWA-2
2623505002	BGWA-29
2623505003	BGWA-6
2623505004	DUP-1
2623696001	BGWC-22
2623696002	BGWC-23
2623696003	BGWC-30
2623696004	BGWC-36D
2623696005	BGWA-33
2623697001	BGWC-22
2623697002	BGWC-23
2623697003	BGWC-30
2623697004	BGWC-36D
2623719001	BGWC-7
2623719002	BGWC-8
2623719003	BGWC-9
2623719004	BGWC-31
2623719005	BGWC-34D
2623719006	FBL 092419
2623719007	EQBL 092419
2623720001	BGWC-7
2623720002	BGWC-8
2623720003	BGWC-9
2623720004	BGWC-31
2623720005	BGWC-34D
2623720006	FBL 092419
2623720007	EQBL 092419
2623721001	BGWC-10

Laboratory ID	Client ID
2623721002	BGWC-12
2623721003	BGWC-14
2623721004	DUP-2
2623721005	FBL 092519
2623721006	EQBL 092519
2623722001	BGWC-10
2623722002	BGWC-12
2623722003	BGWC-14
2623722004	DUP-2
2623722005	FBL 092519
2623722006	EQBL 092519
2623723001	BGWC-35D
2623723002	BGWC-16
2623723003	BGWC-17
2623723004	BGWC-18
2623723005	BGWC-32
2623723006	BGWC-19
2623723007	BGWC-20
2623724001	BGWC-35D
2623724002	BGWC-16
2623724003	BGWC-17
2623724004	BGWC-18
2623724005	BGWC-32
2623724006	BGWC-19
2623724007	BGWC-20
2623808001	BGWC-21
2623808002	BGWC-24
2623808003	BGWC-25
2623808004	Dup-3
2623808005	FBL 093019
2623808006	EQBL 093019
2623809001	BGWC-21

Laboratory ID	Client ID
2623809002	BGWC-24
2623809003	BGWC-25
2623809004	Dup-3

Laboratory ID	Client ID
2623809005	FBL 093019
2623809006	EQBL 093019
2623967001	BGWA-33

The samples were received within 0-6°C, with the following exception. The sample in laboratory report 2623967 was received at 9.9°C less than three hours after sample collection. Since the sample was received on ice before the cooling process could be completed, no qualifications were applied to the data, based on professional and technical judgment. No sample preservation issues were noted by the laboratory.

The following issues were noted with the chain of custody (COC) forms:

- 2623503, 262505, 2623721, 2623722, 2623808 and 2623809: There were no times of collection listed for the field duplicates, DUP-1, DUP-2 and DUP-3. The laboratory assigned collection times of 00:00.
- 2623503: The relinquished by date and time were not documented.
- 2623719, 2623720, 2623721, 2623722 and 2623723: The relinquishing signatures, dates and times were missing for the third sample transfers.
- 2623808 and 2623809: There was a time discrepancy for the sample transfer. For the second sample transfer the relinquished by time was documented as 10/1/19 1515 and the received by time was documented as 10/1/19 1517.

Laboratory report 2623503 was revised on October 11, 2019 to remove compounds not requested on the COC.

1.0 METALS

The samples were analyzed for metals by USEPA methods 3005A/6020B. (Mercury was evaluated separately in Section 2.0, below).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ⊗ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ⊗ Equipment Blank

- ⊗ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five method blanks were reported (batches 36079, 36173, 36350, 36434 and 36492). Metals were not detected in the method blanks above the method detection limits (MDLs), with the following exception.

2623503: Arsenic was detected at an estimated concentration greater than the MDL and less than the reporting limit (RL) in the method blank in batch 36079. Therefore, the arsenic concentrations in the associated samples less than five times the method blank concentrations were U* qualified as not detected at the reported concentrations.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
BGWA-2	Arsenic	0.00095	J B	0.00095	U*	BL
BGWA-29	Arsenic	0.00053	J B	0.00053	U*	BL
BGWA-6	Arsenic	0.0012	J B	0.0012	U*	BL
DUP-1	Arsenic	0.00051	J B	0.00051	U*	BL

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

B-laboratory flag indicating analyte was detected in the associated method blank

* Validation qualifiers are defined in Attachment 1 at the end of this report

**Reason codes are defined in Attachment 2 at the end of this report

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three sample set specific MS/MSD pairs were reported using samples BGWC-22, BGWC-7 and Dup-3. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exception.

The recovery of barium in the MSD using sample BGWC-22 was high and outside the laboratory specified acceptance criteria. Therefore, the barium concentration in sample BGWC-22 was J qualified as estimated.

Two batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-22	Barium	0.095	M1	0.095	J	M+

mg/L- milligram per liter

M1-laboratory flag indicating MS recovery exceeded the QC limits

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Five LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

Three equipment blanks were collected with the sample sets, EQBL 092519, EQBL092419 and EQBL 093019. Metals were not detected in the equipment blanks above the MDLs, with the following exceptions.

Calcium (0.039 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in EQBL 092419. Since calcium was detected at concentrations greater than five times the equipment blank concentration in the associated samples, no qualifications were applied to the data.

Chromium (0.0057 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in EQBL 093019. Therefore, the chromium concentrations less than five times the equipment blank concentration were U* qualified as not detected.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-30	Chromium	0.00056	J	0.00056	U*	BE
BGWC-36D	Chromium	0.00060	J	0.00060	U*	BE
BGWC-12	Chromium	0.00055	J	0.00055	U*	BE
BGWC-35D	Chromium	0.00067	J	0.00067	U*	BE
BGWC-32	Chromium	0.00062	J	0.00062	U*	BE
BGWC-20	Chromium	0.0022	J	0.0022	U*	BE
BGWC-25	Chromium	0.0021	J	0.0021	U*	BE
Dup-3	Chromium	0.00072	J	0.00072	U*	BE

mg/L- milligram per liter

J-estimated concentration greater than the MDL and less than the RL

1.7 Field Blank

Three field blanks were collected with the sample sets, FBL 092519, FBL092419 and FBL 093019. Metals were not detected in the field blanks above the MDLs.

Cadmium was detected at an estimated concentration greater than the MDL and less than the RL in FBL 092519. Therefore, the cadmium concentrations less than five times the field blank concentration were U* qualified as not detected.

Chromium (0.0059 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in FBL 093019. Therefore, the chromium concentrations less than five times the field blank concentration were U* qualified as not detected.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-30	Chromium	0.00056	J	0.00056	U*	BF
BGWC-36D	Chromium	0.00060	J	0.00060	U*	BF
BGWC-12	Chromium	0.00055	J	0.00055	U*	BF
BGWC-35D	Chromium	0.00067	J	0.00067	U*	BF
BGWC-16	Cadmium	0.0017	J	0.0017	U*	BF
BGWC-17	Cadmium	0.00015	J	0.00015	U*	BF
BGWC-32	Chromium	0.00062	J	0.00062	U*	BF
BGWC-19	Cadmium	0.00020	J	0.00020	U*	BF
BGWC-20	Chromium	0.0022	J	0.0022	U*	BF
BGWC-25	Chromium	0.0021	J	0.0021	U*	BF
Dup-3	Chromium	0.00072	J	0.00072	U*	BF

mg/L- milligram per liter

J-estimated concentration greater than the MDL and less than the RL

1.8 Field Duplicate

Three field duplicate samples were collected with the sample sets, DUP-1, DUP-2 and DUP-3. Acceptable precision ($RPD \leq 20\%$ or the difference between the concentrations $< RL$) was demonstrated between the field duplicates and the original samples BGWA-29, BGWC-12 and BGWC-21, respectively.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated nondetect results were not reported.

1.10 Electronic Data Deliverables (EDDs) Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. The laboratory flags B, M1 and M6 used in the level II reports were not included in the EDDs. No other discrepancies were identified between the level II reports and the EDDs.

2.0 MERCURY

The samples were analyzed for mercury by USEPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of

valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (batch 36151, 36428, 36432 and 36474). Mercury was not detected in the method blanks above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two sample set specific MS/MSD pairs were reported using samples BGWC-22 and BGWC-7. The recovery and RPD results were within the laboratory specified acceptance criteria.

Two batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

One batch laboratory duplicate was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Equipment Blank

Three equipment blanks were collected with the sample sets, EQBL 092519, EQBL092419 and EQBL 093019. Mercury was not detected in the equipment blanks above the MDL.

2.8 Field Blank

Three field blanks were collected with the sample sets, FBL 092519, FBL092419 and FBL 093019. Mercury was not detected in the field blanks above the MDL.

2.9 Field Duplicate

The field duplicates were not analyzed for mercury.

2.10 Sensitivity

The samples were reported to the MDL. Elevated nondetect results were not reported.

2.11 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

3.0 WET CHEMISTRY

The samples were analyzed for TDS by Standard Method 2540C and chloride, fluoride and sulfate by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ⊗ Holding Times
- ⊗ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ⊗ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverables Review

3.1 Overall Assessment

The wet chemistry data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

3.2 Holding Times

The holding times for the analysis of a water sample for the wet chemistry parameters are listed below. The holding times were met for the sample analyses, with the following exceptions.

The anions analyses for samples BGWC-10, BGWC-12, BGWC-14, DUP-2, FBL 092519 and EQBL 092519 were performed outside the holding time. Therefore, the anion concentrations were J qualified as estimated and the non-detect results were UJ qualified as estimated less than the MDLs in these samples.

Analyte	Holding Time
TDS	7 days from collection to analysis
Chloride, Fluoride and Sulfate	28 days from collection to analysis

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-10	Chloride	25.1	H1 M1	25.1	J	H
BGWC-10	Fluoride	0.075	J H1	0.075	J	H
BGWC-10	Sulfate	93.7	H1	93.7	J	H
BGWC-12	Chloride	23.6	H1 M1	23.6	J	H
BGWC-12	Fluoride	0.13	J H1	0.13	J	H
BGWC-12	Sulfate	205	H1	205	J	H
BGWC-14	Chloride	31.9	H1	31.9	J	H
BGWC-14	Fluoride	0.11	J H1	0.11	J	H
BGWC-14	Sulfate	181	H1	181	J	H
DUP-2	Chloride	23.3	H1	23.3	J	H
DUP-2	Fluoride	0.079	J H1	0.079	J	H
DUP-2	Sulfate	205	H1	205	J	H
FBL 092519	Chloride	0.024	U H1	0.024	UJ	H
FBL 092519	Fluoride	0.029	U H1	0.029	UJ	H
FBL 092519	Sulfate	0.017	U H1	0.017	UJ	H
EQBL 092519	Chloride	0.079	J H1	0.079	J	H
EQBL 092519	Fluoride	0.029	U H1	0.029	UJ	H
EQBL 092519	Sulfate	0.017	U H1	0.017	UJ	H

mg/L-milligrams per liter

J-estimated concentration greater than the MDL and less than the RL

U-not detected at or above the MDL/RL

H1-laboratory flag indicating analysis was conducted outside the holding time

M1-laboratory flag indicating MS recovery exceeded the QC limits

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Method blanks were reported for the anions (batches 500244, 36185, 501931, 37374 and 36584). The wet chemistry parameters were not detected in the method blanks above the MDLs, with the following exceptions.

Chloride was detected at estimated concentrations greater than the MDL and less than the RL in the method blanks in batches 36185 and 36584. Therefore, the chloride concentrations in the associated samples less than five times the method blank concentration were U* qualified as not detected.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
FBL 093019	Chloride	0.044	J B	0.044	U*	BL
EQBL 093019	Chloride	0.04	J B	0.04	U*	BL

mg/L- milligram per liter

J-estimated concentration greater than the MDL and less than the RL

B-laboratory flag indicating analyte was detected in the associated method blank

3.4 Matrix Spike/Matrix Spike Duplicate

Three sample set specific MS/MSD pairs were reported using sample BGWC-7, BGWC-10 and BGWC-16 and one sample set specific MS was reported using sample BGWC-12 for the anions. The RPD and recovery results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of chloride in the MS/MSD pair using sample BGWC-10 and MS using sample BGWC-12 were low and outside the laboratory specified acceptance criteria. Therefore, the chloride concentrations in samples BGWC-10 and BGWC-12 were J qualified as estimated.

The RPD of fluoride in the MS/MSD pair using sample BGWC-16 was high and outside the laboratory specified acceptance criteria. Since fluoride was not detected in sample BGWC-16, no qualifications were applied to the data.

Batch MSs and MS/MSD pairs were also reported for the anions. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-10	Chloride	25.1	H1 M1	25.1	J	M-
BGWC-12	Chloride	23.6	NA	23.6	J	M-

mg/L- milligram per liter

H1-laboratory flag indicating analysis was conducted outside the holding time

M1-laboratory flag indicating MS recovery exceeded the QC limits

NA-not applicable

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch as appropriate. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Sample set specific laboratory duplicates were reported for TDS using samples BGWA-33 and BGWC-8. The RPD results were within the laboratory specified acceptance criteria.

Batch laboratory duplicates were also reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

Three equipment blanks were collected with the sample sets, EQBL 092519, EQBL092419 and EQBL 093019. The wet chemistry parameters were not detected in the equipment blanks above the MDLs, with the following exceptions.

TDS (15.0 mg/L) was detected at a concentration greater than the RL and chloride (0.079 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in EQBL 092519. Since TDS and chloride were detected at concentrations greater than five times the equipment blank concentrations, no qualifications were applied to the data.

TDS (21.0 mg/L) was detected at a concentration greater than the RL and chloride (0.040 mg/L) was detected at an estimated concentration greater than the MDL and less than the RL in EQBL 093019. Since the chloride concentration in EQBL 093019 was U qualified due to method blank contamination and TDS was detected at concentrations greater than five times the equipment blank concentration, no qualifications were applied to the data.

3.8 Field Blank

Three field blanks were collected with the sample sets, FBL 092519, FBL092419 and FBL 093019. The wet chemistry parameters were not detected in the field blanks above the MDLs, with the following exceptions.

TDS (13.0 mg/L) was detected in FBL 092519 at a concentration greater than the RL. Since TDS was detected at concentrations greater than five times the field blank concentration, no qualifications were applied to the data.

TDS (22.0 mg/L) was detected at a concentration greater than the RL and chloride (0.044 mg/L) and fluoride (0.031 mg/L) were detected at estimated concentrations greater than the MDLs and less than the RLs in FBL 093019. Since the chloride concentration in FBL 093019 was U* qualified due to method blank contamination and TDS was detected at concentrations greater than five times the field blank concentration, no qualifications were applied to the data. However, the fluoride concentrations in the associated samples less than five times the field blank concentration were U* qualified as not detected.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
BGWC-30	Fluoride	0.13	J	0.13	U*	BF
BGWC-21	Fluoride	0.066	J	0.066	U*	BF
BGWC-25	Fluoride	0.065	J	0.065	U*	BF
Dup-3	Fluoride	0.054	J	0.054	U*	BF
BGWC-35D	Fluoride	0.11	J	0.11	U*	BF
BGWC-17	Fluoride	0.071	J	0.071	U*	BF
BGWC-18	Fluoride	0.052	J	0.052	U*	BF
BGWC-32	Fluoride	0.15	J	0.15	U*	BF

mg/L- milligram per liter

J-estimated concentration greater than the MDL and less than the RL

3.9 Field Duplicate

Three field duplicate samples were collected with the sample sets, DUP-1, DUP-2 and DUP-3. Acceptable precision ($RPD \leq 20\%$ or the difference between the concentrations $< RL$) was demonstrated between the field duplicates and the original samples BGWA-29, BGWC-12 and BGWC-21, respectively.

3.10 Sensitivity

The samples were reported to the MDLs. No elevated nondetect results were reported.

3.11 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. The laboratory flags R1, H1, M1, M6 and B used in the level II reports were not included in the EDDs. No other discrepancies were identified between the level II reports and the EDDs.

4.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by EPA method 9315, radium-228 by EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ⊗ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

4.1 Overall Assessment

The radium-226 and radium-228 data reported in these packages are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

4.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

4.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six method blanks were reported for the radium-228 data (batches 364056, 365771, 365380, 365381, 365559 and 366031). Six method blanks were reported for the radium-226 data (batches 364054, 365770, 365376, 365377, 365558 and 366030). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs), with the following exceptions.

Radium-226 was detected at concentrations greater than the MDCs in the method blanks in batches 364054, 365770, 365376, 365377, 365558 and 366030. Therefore, the radium-226 concentrations in the associated samples less than five times the method blank concentrations were U* qualified as not detected. In addition, the total radium concentrations with U* qualified results for radium-226 and radium-228 concentration less than the MDCs were U* qualified as not detected and the total radium concentrations with either a U* qualified result for radium-226 or radium-228 concentration greater than the MDC was J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BGWA-2	Radium-226	1.21	NA	1.21	U*	BL
BGWA-2	Combined Radium 226 + 228	1.82	NA	1.82	U*	BL
BGWA-29	Radium-226	0.405	NA	0.405	U*	BL
BGWA-29	Combined Radium 226 + 228	1.25	NA	1.25	J	BL
BGWA-6	Radium-226	0.571	NA	0.571	U*	BL
BGWA-6	Combined Radium 226 + 228	1.13	NA	1.13	U*	BL
DUP-1	Radium-226	0.317	NA	0.317	U*	BL
DUP-1	Combined Radium 226 + 228	0.921	NA	0.921	U*	BL
BGWC-22	Radium-226	2.08	NA	2.08	U*	BL
BGWC-22	Combined Radium 226 + 228	2.83	NA	2.83	U*	BL
BGWC-23	Radium-226	1.01	NA	1.01	U*	BL
BGWC-23	Combined Radium 226 + 228	2.28	NA	2.28	J	BL
BGWC-30	Radium-226	0.694	NA	0.694	U*	BL
BGWC-30	Combined Radium 226 + 228	1.23	U	1.23	U*	BL

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Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BGWC-36D	Radium-226	0.742	NA	0.742	U*	BL
BGWC-36D	Combined Radium 226 + 228	1.66	NA	1.66	U*	BL
BGWC-7	Radium-226	1.42	NA	1.42	U*	BL
BGWC-7	Combined Radium 226 + 228	1.85	NA	1.85	U*	BL
BGWC-8	Radium-226	0.565	NA	0.565	U*	BL
BGWC-8	Combined Radium 226 + 228	1.69	NA	1.69	J	BL
BGWC-9	Radium-226	1.03	NA	1.03	U*	BL
BGWC-9	Combined Radium 226 + 228	1.65	NA	1.65	U*	BL
BGWC-31	Radium-226	1.06	NA	1.06	U*	BL
BGWC-31	Combined Radium 226 + 228	1.68	NA	1.68	U*	BL
FBL 092419	Radium-226	0.588	NA	0.588	U*	BL
BGWC-10	Radium-226	0.728	NA	0.728	U*	BL
BGWC-10	Combined Radium 226 + 228	0.816	U	0.816	U*	BL
BGWC-12	Radium-226	0.409	NA	0.409	U*	BL
BGWC-12	Combined Radium 226 + 228	0.649	U	0.649	U*	BL
DUP-2	Radium-226	0.352	NA	0.352	U*	BL
DUP-2	Combined Radium 226 + 228	0.352	U	0.352	U*	BL
FBL 092519	Radium-226	0.253	NA	0.253	U*	BL
FBL 092519	Combined Radium 226 + 228	0.297	U	0.297	U*	BL
EQBL 092519	Radium-226	0.342	NA	0.342	U*	BL
EQBL 092519	Combined Radium 226 + 228	1.08	U	1.08	U*	BL
BGWC-35D	Radium-226	1.67	NA	1.67	U*	BL
BGWC-35D	Combined Radium 226 + 228	3.09	NA	3.09	J	BL
BGWC-16	Radium-226	0.746	NA	0.746	U*	BL
BGWC-16	Combined Radium 226 + 228	1.45	NA	1.45	U*	BL
BGWC-18	Radium-226	0.659	NA	0.659	U*	BL
BGWC-18	Combined Radium 226 + 228	1.02	U	1.02	U*	BL
BGWC-32	Radium-226	1.27	NA	1.27	U*	BL
BGWC-32	Combined Radium 226 + 228	2.36	NA	2.36	J	BL
BGWC-19	Radium-226	0.624	NA	0.624	U*	BL
BGWC-19	Combined Radium 226 + 228	1.16	NA	1.16	U*	BL

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BGWC-20	Radium-226	0.657	NA	0.657	U*	BL
BGWC-21	Radium-226	0.535	NA	0.535	U*	BL
BGWC-21	Combined Radium 226 + 228	1.16	U	1.16	U*	BL
BGWC-24	Radium-226	1.86	NA	1.86	U*	BL
BGWC-24	Combined Radium 226 + 228	2.73	NA	2.73	U*	BL
BGWC-25	Radium-226	0.821	NA	0.821	U*	BL
BGWC-25	Combined Radium 226 + 228	0.953	U	0.953	U*	BL
FBL 093019	Radium-226	0.492	NA	0.492	U*	BL
FBL 093019	Combined Radium 226 + 228	0.85	U	0.85	U*	BL
BGWA-33	Radium-226	0.628	NA	0.628	U*	BL
BGWA-33	Combined Radium 226 + 228	1.02	U	1.02	U*	BL

pCi/L-picocuries per liter

NA-not applicable

4.4 Matrix Spike/Matrix Spike Duplicate

MS/MSD pairs were not reported with the data.

4.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Six LCS/LCS duplicate (LCSD) pairs were reported for radium-226. One LCS and five LCS/LCSD pairs were reported for radium-228. The recovery and replicate error ratio (RER) [2 sigma (2σ)] results were within the laboratory specified acceptance criteria, with the following exception.

The recovery of radium-228 was high in the LCS in batch 365380. Therefore, the radium-228 concentration in the associated samples were J qualified as estimated. The total radium results in which the radium-228 component was J qualified as estimated were also J qualified as estimated.

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BGWC-8	Radium-228	1.12	NA	1.12	J	L+
BGWC-8	Combined Radium 226 + 228	1.69	NA	1.69	J	L+
BGWC-35D	Radium-228	1.42	NA	1.42	J	L+
BGWC-35D	Combined Radium 226 + 228	3.09	NA	3.09	J	L+
BGWC-32	Radium-228	1.09	NA	1.09	J	L+

Sample	Analyte	Laboratory Result (pCi/L)	Laboratory Flag	Validation Result (pCi/L)	Validation Qualifier	Reason Code
BGWC-32	Combined Radium 226 + 228	2.36	NA	2.36	J	L+

pCi/L- picocuries per liter

NA-not applicable

4.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for radium-226 using samples BGWC-19. The RER (2σ) result was within the laboratory specified acceptance criteria.

Three batch laboratory duplicates were also reported for radium-226. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data. The recovery and RPD results were within the laboratory specified acceptance criteria.

4.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

4.8 Equipment Blank

Three equipment blanks were collected with the sample sets, EQBL 092519, EQBL092419 and EQBL 093019. Radium-226 and radium-228 were not detected in the equipment blanks above the MDCs, with the following exception.

Radium-226 was detected at concentrations greater than the MDCs in EQBL 092519. Since the radium-226 concentration in EQBL 092519 was U* qualified due to method blank contamination, no additional qualifications were applied to the data, based on professional and technical judgment.

4.9 Field Blank

Three field blanks were collected with the sample sets, FBL 092519, FBL092419 and FBL 093019. Radium-226 and radium-228 were not detected in the field blanks above the MDCs, with the following exceptions.

Radium-226 was detected at concentrations greater than the MDCs in FBL 092519, FBL092419 and FBL 093019. Since the radium-226 concentrations in FBL 092519, FBL092419 and FBL 093019 were U* qualified due to method blank contamination, no additional qualifications were applied to the data, based on professional and technical judgment.

4.10 Field Duplicate

Three field duplicate samples were collected with the sample sets, DUP-1, DUP-2 and DUP-3. Acceptable precision (RER (2σ) < 3) was demonstrated between the field duplicates and the original samples BGWA-29, BGWC-12 and BGWC-21, respectively.

4.11 Sensitivity

The samples were reported to the MDCs. No elevated nondetect results were reported.

4.12 Electronic Data Deliverables Review

The results and sample IDs in the EDDs were reviewed against the information provided by the associated level II reports at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II reports and the EDDs.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U* This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

- 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.

- 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.

- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
13	Other
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
H	Holding time exceedance.
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Memorandum

Date: 15 January 2020
To: Whitney Law
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validations - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 2625773**

SITE: Plant Bowen Ash Pond

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of one aqueous sample collected 15 November 2019, as part of the Plant Bowen Ash Pond on-site sampling event.

The sample was analyzed at Pace Analytical Services, LLC, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride, Fluoride and Sulfate by USEPA Method 300.0

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001); and,
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following sample was analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
2625773001	BGWC-32

The sample was received within 0-6°C. No sample preservation issues were noted by the laboratory.

1.0 METALS

The sample was analyzed for metals by USEPA methods 3005A/6020B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 39293). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

An equipment blank was not collected with the sample set.

1.7 Field Blank

A field blank was not collected with the sample set.

1.8 Field Duplicate

A field duplicate was not collected with the sample set.

1.9 Sensitivity

The sample was reported to the MDLs. Elevated nondetect results were not reported.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 WET CHEMISTRY

The sample was analyzed for TDS by Standard Method 2540C and chloride, fluoride and sulfate by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

2.2 Holding Times

The holding times for the analysis of a water sample for the wet chemistry parameters are listed below. The holding times were met for the sample analyses.

Analyte	Holding Time
TDS	7 days from collection to analysis
Chloride, Fluoride and Sulfate	28 days from collection to analysis

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the anions (batch 39450). The wet chemistry parameters were not detected in the method blank above the MDLs.

2.4 Matrix Spike/Matrix Spike Duplicate

One batch MS/MSD pair was reported for the anions. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch as appropriate. The recovery results were within the laboratory specified acceptance criteria.

2.6 Laboratory Duplicate

Two batch laboratory duplicates were reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Equipment Blank

An equipment blank was not collected with the sample set.

2.8 Field Blank

A field blank was not collected with the sample set.

2.9 Field Duplicate

A field duplicate was not collected with the sample set.

2.10 Sensitivity

The sample was reported to the MDLs. No elevated nondetect results were reported.

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U* This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

- 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.

- 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.

- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
13	Other
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
H	Holding time exceedance.
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Memorandum

Date: 15 January 2020
To: Whitney Law
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validations - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 2625777**

SITE: Plant Bowen Ash Pond

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of one aqueous sample collected 13 December 2019, as part of the Plant Bowen Ash Pond on-site sampling event.

The sample was analyzed at Pace Analytical Services, LLC, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Mercury by USEPA Method 7470A
- Alkalinity by Standard Method 2320B
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride, Fluoride and Sulfate by USEPA Method 300.0

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitations of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001); and,
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following sample was analyzed and reported in the laboratory report:

Laboratory ID	Client ID
2625777001	BGWC-39

The sample was received within 0-6°C. No sample preservation issues were noted by the laboratory.

1.0 METALS

The sample was analyzed for metals by USEPA methods 3005A/6020B. (Mercury was evaluated separately in Section 2.0, below).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 39293). Metals were not detected in the method blank above the method detection limits (MDLs), with the following exception.

Cobalt (0.00031) was detected in the method blank at an estimated concentration greater than the MDL and less than the reporting limit (RL). Since the cobalt concentration in the associated sample was greater than five times the method blank concentration, no qualifications were applied to the data.

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One batch MS/MSD pair was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

An equipment blank was not collected with the sample set.

1.7 Field Blank

A field blank was not collected with the sample set.

1.8 Field Duplicate

A field duplicate was not collected with the sample set.

1.9 Sensitivity

The sample was reported to the MDLs. Elevated nondetect results were not reported.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The sample was analyzed by USEPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 40510). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set MS/MSD pair was reported using sample BGWC-39. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory specified acceptance criteria.

2.6 Equipment Blank

An equipment blank was not collected with the sample set.

2.7 Field Blank

A field blank was not collected with the sample set.

2.8 Field Duplicate

A field duplicate was not collected with the sample set.

2.9 Sensitivity

The sample was reported to the MDL. Elevated nondetect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The sample was analyzed for alkalinity by Standard Method 2320B, TDS by Standard Method 2540C and chloride, fluoride and sulfate by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ⊗ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverables Review

3.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

3.2 Holding Times

The holding times for the analysis of a water sample for the wet chemistry parameters are listed below. The holding times were met for the sample analyses.

Analyte	Holding Time
Alkalinity	28 days from collection to analysis
TDS	7 days from collection to analysis
Chloride, Fluoride and Sulfate	28 days from collection to analysis

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the alkalinity (batch 40647) and one method blank was reported for the anions (batch 40677). The wet chemistry parameters were not detected in the method blanks above the MDLs, with the following exceptions.

Chloride (0.027) and fluoride (0.070) were detected in the method blank in batch 40677 at estimated concentrations greater than the MDLs and less than the RLs. Since the chloride concentration in the associated sample was greater than five times the method blank concentration, no qualifications were applied to the chloride data. However, the fluoride concentration in the associated sample was U* qualified as not detected.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier*	Reason Code**
BGWC-39	Fluoride	0.16	J M1	0.16	U*	BL

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

M1-laboratory flag indicating MS recovery exceeded the QC limits

* Validation qualifiers are defined in Attachment 1 at the end of this report

**Reason codes are defined in Attachment 2 at the end of this report

3.4 Matrix Spike/Matrix Spike Duplicate

One sample set specific MS/MSD pair was reported for the anions using sample BGWC-39.

The recoveries of chloride, fluoride and sulfate in the MS/MSD pair were low and outside the laboratory specified acceptance criteria. Since the chloride and sulfate concentrations in sample BGWC-39 were greater than four times the spike concentrations, no qualifications were applied to the data, based on professional and technical judgment. However, the fluoride concentration in sample BGWC-39 was J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier	Reason Code
BGWC-39	Fluoride	0.16	J M1	0.16	J	M-

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

M1-laboratory flag indicating MS recovery exceeded the QC limits

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch as appropriate. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for alkalinity using sample BGWC-39. The RPD result was within the laboratory specified acceptance criteria.

Two batch laboratory duplicates were reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

An equipment blank was not collected with the sample set.

3.8 Field Blank

A field blank was not collected with the sample set.

3.9 Field Duplicate

A field duplicate was not collected with the sample set.

3.10 Sensitivity

The sample was reported to the MDLs. No elevated nondetect results were reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. The laboratory flag M1 used in the level II report was not included in the EDD. No other discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U* This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

- 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.

- 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.

- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Reason Code	Explanation
13	Other
BE	Equipment blank contamination. The result should be considered "not-detected."
BF	Field blank contamination. The result should be considered "not-detected."
BL	Laboratory blank contamination. The result should be considered "not-detected."
H	Holding time exceedance.
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

Memorandum

Date: 15 January 2020
To: Whitney Law
From: Kristoffer Henderson
CC: J. Caprio
Subject: **Stage 2A Data Validations - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 2626961**

SITE: Plant Bowen Ash Pond

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of one aqueous sample collected 16 December 2019, as part of the Plant Bowen Ash Pond on-site sampling event.

The sample was analyzed at Pace Analytical Services, LLC, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Total Dissolved Solids (TDS) by Standard Method 2540C
- Chloride, Fluoride and Sulfate by USEPA Method 300.0

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for meeting project objectives. Qualified data should be used within the limitations of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, January 2017 (EPA 540-R-2017-001); and,

- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following sample was analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
2626961001	BGWC-40

The sample was received within 0-6°C. No sample preservation issues were noted by the laboratory.

1.0 METALS

The sample was analyzed for metals by USEPA methods 3005A/6020B.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 41105). Metals were not detected in the method blank above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported using sample BGWC-40. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exceptions.

The MS recovery was high and the MSD recovery was low for calcium, both outside the laboratory specified acceptance criteria in the MS/MSD pair. Since the calcium concentration in sample BGWC-40 was greater than four times the spike concentration, no qualifications were applied to the data, based on professional and technical judgment.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

One batch laboratory duplicate was reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Equipment Blank

An equipment blank was not collected with the sample set.

1.8 Field Blank

A field blank was not collected with the sample set.

1.9 Field Duplicate

A field duplicate was not collected with the sample set.

1.10 Sensitivity

The sample was reported to the MDLs. Elevated nondetect results were not reported.

1.11 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. The laboratory flag M6 used in the level II report was not included in the EDD. No other discrepancies were identified between the level II report and the EDD.

2.0 WET CHEMISTRY

The sample was analyzed for TDS by Standard Method 2540C and chloride, fluoride and sulfate by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ⊗ Matrix Spike/Matrix Spike Duplicate
- ⊗ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ⊗ Electronic Data Deliverables Review

2.1 Overall Assessment

The wet chemistry data reported in this package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to

the total number of analytical results requested on samples submitted for this analysis, for the dataset is 100%.

2.2 Holding Times

The holding times for the analysis of a water sample for the wet chemistry parameters are listed below. The holding times were met for the sample analyses.

Analyte	Holding Time
TDS	7 days from collection to analysis
Chloride, Fluoride and Sulfate	28 days from collection to analysis

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the anions (batch 41303). The wet chemistry parameters were not detected in the method blank above the MDLs.

2.4 Matrix Spike/Matrix Spike Duplicate

One sample set specific MS/MSD pair was reported for the anions using sample BGWC-40.

The recoveries of chloride and fluoride were low, and the recoveries of sulfate were high, all outside the laboratory specified acceptance criteria in the MS/MSD pair. Since the concentrations of chloride and sulfate in sample BGWC-40 were greater than four times the spiked concentrations, no qualifications were applied to the chloride and sulfate data, based on professional and technical judgment. However, the fluoride concentration in sample BGWC-40 was J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier*	Reason Code**
BGWC-40	Fluoride	0.13	J L2 M0	0.13	J	M-

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

L2-laboratory flag indicating LCS recovery was below QC limits

M0-laboratory flag

* Validation qualifiers are defined in Attachment 1 at the end of this report

**Reason codes are defined in Attachment 2 at the end of this report

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch as appropriate. The

recovery results were within the laboratory specified acceptance criteria, with the following exception.

The recovery of fluoride was low and outside the laboratory specified acceptance criteria in the LCS in batch 41303. Therefore, the fluoride concentration in the associated sample was J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/L)	Laboratory Flag	Validation Result	Validation Qualifier	Reason Code
BGWC-40	Fluoride	0.13	J L2 M0	0.13	J	L-

mg/L- milligram per liter

J- estimated concentration greater than the MDL and less than the RL

L2-laboratory flag indicating LCS recovery was below QC limits

M0-laboratory flag

2.6 Laboratory Duplicate

Two batch laboratory duplicates were reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.7 Equipment Blank

An equipment blank was not collected with the sample set.

2.8 Field Blank

A field blank was not collected with the sample set.

2.9 Field Duplicate

A field duplicate was not collected with the sample set.

2.10 Sensitivity

The sample was reported to the MDLs. No elevated nondetect results were reported.

2.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. The laboratory flags L2, M0 and M6 used in the level II report were not included in the EDD. No other discrepancies were identified between the level II report and the EDD.

* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

- U* This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

- 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.

- 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.

- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec’s Data Validation Team

Reason Code	Explanation
13	Other
BE	Equipment blank contamination. The result should be considered “not-detected.”
BF	Field blank contamination. The result should be considered “not-detected.”
BL	Laboratory blank contamination. The result should be considered “not-detected.”
H	Holding time exceedance.
L	LCS and LCSD recoveries outside acceptance limits, indeterminate bias
L-	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased low.
L+	LCS and/or LCSD recoveries outside of acceptance limits. The result may be biased high.
M-	MS and/or MSD recoveries outside of acceptance limits. The result may be biased low.

APPENDIX E2

Field Sampling Forms

Product Name: Low-Flow System

Date: 2019-02-25 11:01:24

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 89.0 ft

Pump placement from TOC 84.02 ft

Well Information:

Well ID BGWA-2
Well diameter 2 in
Well Total Depth 89.02 ft
Screen Length 10 ft
Depth to Water 31.83 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.8822446 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6.24 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	10:43:08	2160.01	17.03	7.78	389.00	2.60	31.84	0.93	454.88
Last 5	10:47:08	2400.01	16.63	7.78	390.75	2.07	31.84	0.99	476.49
Last 5	10:51:08	2640.00	17.12	7.78	390.72	1.62	31.84	1.03	483.18
Last 5	10:55:08	2880.00	17.21	7.78	391.54	1.38	31.84	1.09	486.62
Last 5	10:59:08	3120.00	17.29	7.78	389.57	1.21	31.83	1.12	496.21
Variance 0			0.50	0.00	-0.02			0.03	6.70
Variance 1			0.09	-0.00	0.81			0.06	3.43
Variance 2			0.08	0.00	-1.96			0.03	9.59

Notes

Prepurged 3L

Grab Samples

BGWA-2
Metals, Fluoride, Radium

Product Name: Low-Flow System

Date: 2019-02-27 11:13:39

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 101 ft

Pump placement from TOC 95 ft

Well Information:

Well ID BGWA-29
Well diameter 2 in
Well Total Depth 100.10 ft
Screen Length 10 ft
Depth to Water 30.70 ft

Pumping Information:

Final Pumping Rate 245 mL/min
Total System Volume 0.9358057 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.36 in
Total Volume Pumped 8.9 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	10:55:06	1200.02	16.48	7.88	192.71	1.96	30.74	8.55	10.39
Last 5	10:59:06	1440.02	16.49	7.91	190.29	2.04	30.74	8.66	7.72
Last 5	11:03:06	1680.01	16.51	7.96	189.15	2.13	30.74	8.71	7.13
Last 5	11:07:06	1920.01	16.51	7.99	188.89	2.12	30.73	8.71	5.05
Last 5	11:11:06	2160.03	16.53	8.00	188.10	1.64	30.73	8.77	4.32
Variance 0			0.03	0.04	-1.14			0.05	-0.59
Variance 1			-0.00	0.03	-0.26			0.00	-2.08
Variance 2			0.02	0.01	-0.79			0.05	-0.73

Notes

Prepurged 1L

Grab Samples

BGWA-29

Metals

Dup-1

Metals

BGWA-29

Fluoride

Dup-1
Fluoride
BGWA-29
Radium
Dup-1
Radium



Product Name: Low-Flow System

Date: 2019-02-27 13:23:30

Project Information:

Operator Name Brian Steele
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 95 ft

Pump placement from TOC 85 ft

Well Information:

Well ID BGWC-7
Well diameter 2 in
Well Total Depth 90.20 ft
Screen Length 10 ft
Depth to Water 34.19 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.9090251 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 50 in
Total Volume Pumped 30.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	13:03:10	11520.04	18.44	7.04	1132.84	0.66	77.20	0.22	-113.78
Last 5	13:07:10	11760.04	18.43	7.04	1139.55	0.72	77.90	0.24	-110.38
Last 5	13:11:10	12000.04	18.56	7.04	1136.43	0.82	78.50	0.22	-108.78
Last 5	13:15:10	12240.04	18.46	7.05	1137.19	0.76	79.30	0.24	-105.93
Last 5	13:19:10	12480.05	18.55	7.05	1131.11	--	--	0.25	-102.71
Variance 0			0.13	0.00	-3.12			-0.01	1.60
Variance 1			-0.11	0.00	0.77			0.01	2.85
Variance 2			0.09	0.00	-6.08			0.01	3.22

Notes

Purged 250 ml before starting low flow
Complete evacuation no sample

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-25 13:10:51

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 80 ft

Pump placement from TOC 74.73 ft

Well Information:

Well ID BGWC-8
Well diameter 2 in
Well Total Depth 79.73 ft
Screen Length 10 ft
Depth to Water 35.15 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.8420739 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.36 in
Total Volume Pumped 5.76 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	12:53:07	1920.01	17.03	7.74	333.81	5.31	35.18	4.97	915.44
Last 5	12:57:07	2160.01	17.41	7.75	334.44	5.30	35.18	4.92	928.17
Last 5	13:01:07	2400.01	17.00	7.74	333.81	4.73	35.18	4.93	946.58
Last 5	13:05:07	2640.00	17.34	7.74	335.58	4.67	35.19	4.89	961.62
Last 5	13:09:07	2880.00	17.52	7.75	333.35	4.42	35.18	4.79	978.53
Variance 0			-0.41	-0.00	-0.63			0.02	18.40
Variance 1			0.34	-0.00	1.77			-0.04	15.05
Variance 2			0.18	0.01	-2.23			-0.10	16.91

Notes

Prepurged 1.5L

Grab Samples

BGWC-8
Metals, Fluoride, Radium

Product Name: Low-Flow System

Date: 2019-02-25 16:34:33

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 64 ft

Pump placement from TOC 58.74 ft

Well Information:

Well ID BGWC-9
Well diameter 2 in
Well Total Depth 63.74 ft
Screen Length 10 ft
Depth to Water 14.50 ft

Pumping Information:

Final Pumping Rate 115 mL/min
Total System Volume 0.770659 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 1.32 in
Total Volume Pumped 11.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	16:12:48	5039.98	17.64	7.34	469.62	11.80	14.60	2.04	920.37
Last 5	16:16:48	5279.98	17.61	7.33	471.49	11.50	14.62	2.12	921.75
Last 5	16:20:48	5519.98	17.56	7.33	473.15	11.00	14.63	2.17	924.34
Last 5	16:24:48	5759.98	17.51	7.33	469.62	11.30	14.62	2.13	929.08
Last 5	16:28:51	6002.97	16.94	7.33	476.32	10.48	14.61	2.18	930.83
Variance 0			-0.05	-0.00	1.66			0.05	2.60
Variance 1			-0.04	0.01	-3.53			-0.03	4.74
Variance 2			-0.58	-0.00	6.69			0.05	1.74

Notes

Prepurged 1.5L
No sample

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 17:34:47

Project Information:

Operator Name Brian Steele
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 70 ft

Pump placement from TOC 58 ft

Well Information:

Well ID BGWC-9
Well diameter 2 in
Well Total Depth 63.94 ft
Screen Length 10 ft
Depth to Water 16.37 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.7974396 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.72 in
Total Volume Pumped 32.46 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	17:16:41	12000.04	17.94	7.04	432.38	11.16	16.43	2.81	-3.03
Last 5	17:20:41	12240.04	17.98	7.05	429.29	11.18	16.43	2.78	-3.20
Last 5	17:24:57	12496.05	17.82	7.05	432.74	10.66	16.43	2.80	-2.51
Last 5	17:29:01	12740.04	17.72	7.06	432.26	10.55	16.43	2.81	-2.58
Last 5	17:33:05	12984.05	17.72	7.06	431.46	10.84	16.43	2.78	-2.63
Variance 0			-0.15	-0.00	3.45			0.02	0.70
Variance 1			-0.10	0.00	-0.48			0.01	-0.07
Variance 2			-0.00	0.01	-0.81			-0.03	-0.05

Notes

Prepurged 750 ml before starting low flow
No samples collected will redevelop well at a later point

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-28 12:24:11

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 64 ft

Pump placement from TOC 57.3 ft

Well Information:

Well ID BGWC-10
Well diameter 2 in
Well Total Depth 42.36 ft
Screen Length 10 ft
Depth to Water 13.55 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.770659 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 245.28 in
Total Volume Pumped 18.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	12:06:09	6000.98	16.24	7.56	564.43	5.08	32.97	1.79	-75.56
Last 5	12:10:09	6240.98	16.31	7.55	564.05	4.73	33.43	1.83	-76.97
Last 5	12:14:09	6480.98	16.29	7.56	561.80	4.92	33.71	1.90	-75.62
Last 5	12:18:09	6720.98	16.11	7.57	561.62	4.86	33.81	1.82	-76.12
Last 5	12:22:09	6960.97	16.20	7.55	563.13	4.43	33.99	1.49	-81.11
Variance 0			-0.02	0.01	-2.25			0.07	1.35
Variance 1			-0.18	0.00	-0.17			-0.07	-0.50
Variance 2			0.09	-0.01	1.51			-0.34	-4.99

Notes

Grab Samples
BGWC-10
Metals
BGWC-10
Fluoride
BGWC-10
Radium

Product Name: Low-Flow System

Date: 2019-02-28 15:11:30

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 79 ft

Pump placement from TOC 73 ft

Well Information:

Well ID BGWC-12
Well diameter 2 in
Well Total Depth 78.06 ft
Screen Length 10 ft
Depth to Water 27.63 ft

Pumping Information:

Final Pumping Rate 255 mL/min
Total System Volume 0.8376105 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 6.6 in
Total Volume Pumped 5.1 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	14:54:06	240.08	17.11	7.32	855.18	0.93	28.00	2.42	-203.07
Last 5	14:58:06	480.03	17.10	7.30	843.67	0.57	28.11	2.56	-147.41
Last 5	15:02:06	720.04	17.06	7.29	865.25	1.48	28.16	2.56	-102.96
Last 5	15:06:06	960.03	17.06	7.28	877.91	2.65	28.17	2.55	-74.28
Last 5	15:10:06	1200.02	17.18	7.28	882.47	4.11	28.18	2.60	-56.83
Variance 0			-0.04	-0.01	21.58			-0.00	44.44
Variance 1			0.00	-0.01	12.66			-0.01	28.68
Variance 2			0.12	-0.00	4.57			0.04	17.46

Notes

Prepurged 0.5L

Grab Samples

BGWC-12

Metals

BGWC-12

Fluoride

BGWC-12

Radium

Product Name: Low-Flow System

Date: 2019-03-04 11:34:44

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 91 ft

Pump placement from TOC 86.00 ft

Well Information:

Well ID BGWC-14
Well diameter 2 in
Well Total Depth 88.08 ft
Screen Length 10 ft
Depth to Water 66.97 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.5961715 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 138.24 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
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:17:14	3840.00	15.03	7.33	914.03	1.79	76.34	3.54	47.57
Last 5	11:21:14	4080.00	15.30	7.33	910.57	1.74	76.99	3.52	46.65
Last 5	11:25:14	4320.00	15.12	7.33	911.78	1.72	77.44	3.54	46.47
Last 5	11:29:14	4559.99	15.33	7.33	911.95	1.65	77.94	3.55	46.18
Last 5	11:33:14	4799.99	15.21	7.33	913.19	1.63	78.49	3.57	45.82
Variance 0			-0.18	0.00	1.20			0.02	-0.18
Variance 1			0.21	-0.00	0.17			0.01	-0.29
Variance 2			-0.12	0.00	1.24			0.02	-0.36

Notes

Pump hung 2' from the bottom because of historically going dry
Prepurged 1L. Water level dropped below the top of the screen. Complete evacuation being performed

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-25 15:47:55

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 50 ft

Pump placement from TOC 43.99 ft

Well Information:

Well ID BGWC-16
Well diameter 2 in
Well Total Depth 48.99 ft
Screen Length 10 ft
Depth to Water 7.04 ft

Pumping Information:

Final Pumping Rate 165 mL/min
Total System Volume 0.7081711 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 1.08 in
Total Volume Pumped 5.5 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	15:28:29	960.02	15.39	6.79	872.35	0.98	7.12	0.82	20.16
Last 5	15:32:30	1201.02	15.75	6.77	876.21	0.55	7.13	0.52	19.19
Last 5	15:36:30	1441.02	15.93	6.76	872.55	0.61	7.12	0.40	18.87
Last 5	15:40:30	1681.02	15.39	6.75	871.54	0.43	7.12	0.34	19.26
Last 5	15:44:30	1921.02	15.39	6.74	875.41	0.51	7.13	0.60	19.41
Variance 0			0.18	-0.01	-3.66			-0.12	-0.32
Variance 1			-0.54	-0.01	-1.01			-0.06	0.39
Variance 2			-0.00	-0.01	3.88			0.26	0.15

Notes

Prepurged 0.5L

Grab Samples

BGWC-16

Metals

BGWC-16

Fluoride

BGWC-16

Radium

Product Name: Low-Flow System

Date: 2019-02-27 12:57:33

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 69 ft

Pump placement from TOC 63 ft

Well Information:

Well ID BGWC-17
Well diameter 2 in
Well Total Depth 68.10 ft
Screen Length 10 ft
Depth to Water 7.99 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.7929762 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 3 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	12:39:11	480.03	16.28	7.42	538.22	1.93	8.01	0.35	0.56
Last 5	12:43:11	720.02	16.27	7.37	532.45	0.88	8.01	0.28	4.42
Last 5	12:47:11	960.02	16.36	7.38	531.31	0.76	8.01	0.26	3.95
Last 5	12:51:11	1200.02	16.56	7.38	529.45	0.74	8.01	0.21	3.76
Last 5	12:55:11	1440.02	16.53	7.38	527.94	0.87	8.01	0.19	3.49
Variance 0			0.09	0.01	-1.14			-0.02	-0.47
Variance 1			0.20	-0.00	-1.86			-0.05	-0.19
Variance 2			-0.03	0.00	-1.51			-0.02	-0.26

Notes

Prepurged 0.5L

Grab Samples

BGWC-17

Metals

BGWC-17

Fluoride

BGWC-17

Radium

Product Name: Low-Flow System

Date: 2019-02-27 14:55:38

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 39 ft

Pump placement from TOC 32.80 ft

Well Information:

Well ID BGWC-18
Well diameter 2 in
Well Total Depth 37.82 ft
Screen Length 10 ft
Depth to Water 5.34 ft

Pumping Information:

Final Pumping Rate 455 mL/min
Total System Volume 0.6590735 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 13.1 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	14:36:08	720.03	16.74	6.75	462.20	0.66	5.44	1.40	7.84
Last 5	14:40:08	960.02	16.96	6.69	456.09	1.64	5.47	1.36	7.78
Last 5	14:44:08	1200.02	16.79	6.65	449.32	3.15	5.44	1.38	8.37
Last 5	14:48:08	1440.02	17.10	6.63	440.10	3.60	5.45	1.41	8.34
Last 5	14:52:08	1680.02	16.78	6.58	435.79	3.92	5.46	1.45	9.74
Variance 0			-0.17	-0.04	-6.77			0.02	0.60
Variance 1			0.31	-0.02	-9.22			0.03	-0.03
Variance 2			-0.31	-0.05	-4.31			0.04	1.40

Notes

Grab Samples
BGWC-18
Metals
BGWC-18
Fluoride
BGWC-18
Radium

Product Name: Low-Flow System

Date: 2019-03-01 13:51:40

Project Information:

Operator Name Kevin Stephenson
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 55 ft

Pump placement from TOC 49.70 ft

Well Information:

Well ID BGWC-19
Well diameter 2 in
Well Total Depth 54.70 ft
Screen Length 10 ft
Depth to Water 9.24 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.7304883 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 2.52 in
Total Volume Pumped 2.4 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	13:32:44	240.07	17.36	7.23	357.35	1.30	9.34	2.60	8.03
Last 5	13:36:44	480.02	16.34	6.89	361.87	0.34	9.40	2.61	10.84
Last 5	13:40:44	720.02	16.33	6.78	361.07	0.35	9.43	2.60	12.70
Last 5	13:44:44	960.01	16.29	6.73	358.66	0.41	9.45	2.60	14.21
Last 5	13:48:44	1200.01	16.13	6.70	357.96	0.34	9.45	2.56	15.71
Variance 0			-0.01	-0.11	-0.80			-0.01	1.86
Variance 1			-0.04	-0.05	-2.41			-0.00	1.51
Variance 2			-0.16	-0.03	-0.70			-0.03	1.50

Notes

Pre-purged 1 liter.

Grab Samples

BGWC-19

Metals

BGWC-19

Inorganics

BGWC-19

Radium

Product Name: Low-Flow System

Date: 2019-02-27 16:45:19

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 51 ft

Pump placement from TOC 44.74 ft

Well Information:

Well ID BGWC-20
Well diameter 2 in
Well Total Depth 49.74 ft
Screen Length 10 ft
Depth to Water 10.70 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.7126346 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 100.8 in
Total Volume Pumped 9.6 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	16:27:02	2880.01	16.69	7.25	1506.56	1.61	18.29	1.38	9.60
Last 5	16:31:06	3124.00	16.83	7.25	1508.93	1.40	18.40	1.21	5.22
Last 5	16:35:17	3375.00	17.13	7.24	1517.04	0.94	18.84	1.15	-0.02
Last 5	16:39:17	3615.00	16.98	7.26	1515.75	0.81	18.90	1.15	-3.09
Last 5	16:43:17	3855.00	16.83	7.26	1526.66	1.11	19.10	0.97	-6.74
Variance 0			0.31	-0.00	8.11			-0.06	-5.24
Variance 1			-0.15	0.01	-1.29			-0.00	-3.08
Variance 2			-0.16	0.00	10.92			-0.18	-3.65

Notes

Prepurged 0.75L

Grab Samples

BGWC-20
Fluoride
BGWC-20
Metals
BGWC-20
Radium

Product Name: Low-Flow System

Date: 2019-02-28 16:43:43

Project Information:

Operator Name Brian Steele
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 60 ft

Pump placement from TOC 48 ft

Well Information:

Well ID BGWC-21
Well diameter 2 in
Well Total Depth 53.35 ft
Screen Length 10 ft
Depth to Water 12.08 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7528054 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 6.24 L
Total Volume Pumped 82.44 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	16:24:35	23771.07	18.38	7.38	538.32	19.20	12.70	0.41	-52.12
Last 5	16:28:35	24011.07	18.44	7.39	535.03	21.80	12.54	0.37	-54.27
Last 5	16:32:35	24251.07	18.19	7.39	533.37	22.70	12.60	0.36	-54.46
Last 5	16:36:35	24491.07	18.31	7.38	539.34	20.40	12.70	0.41	-53.04
Last 5	16:40:35	24731.07	18.43	7.38	539.25	19.90	12.60	0.39	-52.50
Variance 0			-0.25	0.01	-1.65			-0.01	-0.19
Variance 1			0.12	-0.01	5.97			0.05	1.42
Variance 2			0.12	-0.00	-0.09			-0.02	0.54

Notes

Removed 250 ml prior to starting low flow
No samples collected turbid well needs to be redeveloped

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-01 11:45:13

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 43 ft

Pump placement from TOC 38 ft

Well Information:

Well ID BGWC-22
Well diameter 2 in
Well Total Depth 43.05 ft
Screen Length 10 ft
Depth to Water 19.56 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.6769272 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 3.84 in
Total Volume Pumped 15.84 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	11:22:13	6960.04	17.23	6.89	2900.49	5.35	19.93	0.29	-0.37
Last 5	11:26:13	7200.04	17.32	6.89	2902.88	5.43	19.93	0.23	-2.07
Last 5	11:30:13	7440.04	17.40	6.89	2901.42	4.90	19.95	0.19	-3.61
Last 5	11:34:13	7680.04	17.45	6.89	2899.24	4.58	19.94	0.17	-3.34
Last 5	11:38:13	7920.04	17.52	6.90	2895.75	4.49	19.88	0.15	-1.45
Variance 0			0.08	-0.00	-1.46			-0.04	-1.54
Variance 1			0.05	0.00	-2.19			-0.02	0.27
Variance 2			0.08	0.00	-3.48			-0.02	1.89

Notes

Prepurged 2L

Grab Samples

BGWC-22
Metals, Radium, Fluoride
DUP-2
Metals, Radium, Fluoride

Product Name: Low-Flow System

Date: 2019-03-01 14:12:31

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 51 ft

Pump placement from TOC 45.95 ft

Well Information:

Well ID BGWC-23
Well diameter 2 in
Well Total Depth 50.95 ft
Screen Length 10 ft
Depth to Water 26.57 ft

Pumping Information:

Final Pumping Rate 115 mL/min
Total System Volume 0.7126346 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 20.76 in
Total Volume Pumped 5.06 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	13:49:09	1680.05	17.90	7.15	3160.72	1.54	28.04	0.19	-73.63
Last 5	13:53:09	1920.03	17.95	7.16	3138.18	2.02	28.14	0.21	-73.39
Last 5	13:57:09	2160.03	17.72	7.16	3173.27	2.00	28.14	0.16	-71.69
Last 5	14:01:09	2400.03	17.68	7.16	3211.11	1.82	28.15	0.18	-71.49
Last 5	14:05:09	2640.03	17.83	7.16	3246.09	1.79	28.30	0.18	-70.87
Variance 0			-0.23	0.00	35.10			-0.05	1.70
Variance 1			-0.04	-0.00	37.84			0.02	0.20
Variance 2			0.15	-0.00	34.98			-0.01	0.62

Notes

Prepurged 1L

Grab Samples

BGWC-23
Metals, radium, fluoride

Product Name: Low-Flow System

Date: 2019-03-01 12:03:23

Project Information:

Operator Name Kevin Stephenson
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 66 ft

Pump placement from TOC 61.09 ft

Well Information:

Well ID BGWC-24
Well diameter 2 in
Well Total Depth 66.09 ft
Screen Length 10 ft
Depth to Water 7.80 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.779586 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 120.6 in
Total Volume Pumped 19.44 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:45:00	6239.97	18.84	6.57	7228.08	0.18	17.47	0.13	-43.65
Last 5	11:49:00	6479.97	18.75	6.57	7253.59	0.10	17.55	0.13	-43.28
Last 5	11:53:00	6719.96	18.67	6.57	7276.93	0.16	17.68	0.14	-41.09
Last 5	11:57:00	6959.96	18.66	6.57	7248.03	0.19	17.79	0.14	-40.95
Last 5	12:01:00	7199.96	18.83	6.57	7271.40	0.18	17.85	0.12	-39.93
Variance 0			-0.08	-0.00	23.34			0.01	2.19
Variance 1			-0.01	0.00	-28.90			-0.00	0.14
Variance 2			0.17	-0.00	23.38			-0.01	1.02

Notes

Pre-purged 3 liters.

Grab Samples

BGWC-24

Metals

BGWC-24

Inorganics

BGWC-24

Radium

Product Name: Low-Flow System

Date: 2019-03-01 13:00:36

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 60 ft

Pump placement from TOC 53.40 ft

Well Information:

Well ID BGWC-25
Well diameter 2 in
Well Total Depth 58.37 ft
Screen Length 10 ft
Depth to Water 11.95 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.7528054 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 41.76 in
Total Volume Pumped 3.3 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	12:43:07	240.08	16.54	7.44	397.02	0.56	13.56	0.06	49.32
Last 5	12:47:07	480.03	16.57	7.47	396.51	1.12	14.21	0.04	38.09
Last 5	12:51:07	720.03	16.81	7.47	396.88	1.45	15.21	0.02	34.39
Last 5	12:55:07	960.02	17.66	7.48	394.73	1.80	15.36	0.05	37.42
Last 5	12:59:07	1200.02	18.46	7.50	396.42	1.72	15.43	0.07	44.53
Variance 0			0.24	0.00	0.38			-0.02	-3.70
Variance 1			0.85	0.01	-2.15			0.03	3.02
Variance 2			0.80	0.02	1.69			0.02	7.11

Notes

Grab Samples
BGWC-25
Metals
BGWC-25
Fluoride
BGWC-25
Radium

Product Name: Low-Flow System

Date: 2019-03-01 11:32:27

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 364455
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 62 ft

Pump placement from TOC 56 ft

Well Information:

Well ID BGWC-30
Well diameter 2 in
Well Total Depth 61.03 ft
Screen Length 10 ft
Depth to Water 10.28 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.7617322 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 4.4 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	11:15:03	240.08	19.04	7.27	1388.01	1.32	10.30	2.82	219.48
Last 5	11:19:03	480.03	19.39	7.30	1375.80	1.65	10.31	2.83	208.22
Last 5	11:23:03	720.02	19.03	7.31	1353.52	2.43	10.30	2.82	201.86
Last 5	11:27:03	960.02	19.24	7.31	1359.87	3.20	10.30	2.86	197.91
Last 5	11:31:03	1200.02	19.57	7.32	1353.52	3.17	10.30	2.85	195.41
Variance 0			-0.35	0.01	-22.29			-0.01	-6.36
Variance 1			0.21	0.00	6.35			0.04	-3.95
Variance 2			0.33	0.01	-6.34			-0.02	-2.50

Notes

Prepurged 0.5L

Grab Samples

BGWC-30

Metals

BGWC-30

Fluoride

BGWC-30

Radium

Product Name: Low-Flow System

Date: 2019-03-04 14:51:50

Project Information:

Operator Name Robert Mull
Company Name Resolute Env
Project Name Ash Pond Scan
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 80 ft

Pump placement from TOC 74.9 ft

Well Information:

Well ID BGWC-34D
Well diameter 2 in
Well Total Depth 79.93 ft
Screen Length 10 ft
Depth to Water 8.85 ft

Pumping Information:

Final Pumping Rate 105 mL/min
Total System Volume 0.5470738 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 111.84 in
Total Volume Pumped 11.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	14:34:07	4559.99	14.00	7.30	694.67	2.46	17.41	0.05	-159.25
Last 5	14:38:07	4799.99	14.08	7.31	694.27	2.00	17.63	0.05	-161.51
Last 5	14:42:07	5039.99	14.12	7.33	695.66	1.89	17.89	0.05	-165.87
Last 5	14:46:07	5279.98	14.26	7.33	696.43	2.02	18.01	0.05	-168.27
Last 5	14:50:07	5519.98	14.24	7.36	688.01	2.15	18.17	0.04	-172.22
Variance 0			0.04	0.02	1.39			0.00	-4.36
Variance 1			0.14	-0.00	0.77			0.00	-2.41
Variance 2			-0.01	0.03	-8.42			-0.01	-3.94

Notes

Grab Samples
BGWC-34D
Arsenic

Product Name: Low-Flow System

Date: 2019-04-01 10:38:14

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 87 ft

Pump placement from TOC 81.5 ft

Well Information:

Well ID BGWA-2
Well diameter 2 in
Well Total Depth 86.50 ft
Screen Length 10 ft
Depth to Water 43.46 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.8683177 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 2.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:20:55	360.02	17.94	7.66	338.40	0.83	43.50	0.67	64.72
Last 5	10:23:55	540.01	18.19	7.68	338.48	1.17	43.50	0.48	65.18
Last 5	10:26:55	720.01	18.03	7.69	337.89	1.07	43.50	0.40	71.38
Last 5	10:29:55	900.01	18.08	7.70	338.47	0.69	43.50	0.36	80.59
Last 5	10:32:55	1080.01	17.93	7.70	339.91	0.65	43.50	0.37	91.63
Variance 0			-0.16	0.02	-0.59			-0.08	6.20
Variance 1			0.05	0.01	0.58			-0.04	9.21
Variance 2			-0.15	-0.00	1.45			0.01	11.05

Notes

Prepurged 1L
Well performed well

Grab Samples

BGWA- 2
Metals
BGWA-2
Inorganics

BGWA-2
Radium
DUP-1
Metals
DUP-1
Inorganics
DUP-1
Radium

Product Name: Low-Flow System

Date: 2019-04-02 11:31:59

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 67 ft

Pump placement from TOC 61.3 ft

Well Information:

Well ID BGWA-6
Well diameter 2 in
Well Total Depth 66.3 ft
Screen Length 10 ft
Depth to Water 32.92 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.7790493 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 0.96 in
Total Volume Pumped 2.34 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:16:52	360.02	18.17	7.25	543.42	0.88	32.97	0.49	-14.78
Last 5	11:19:52	540.02	18.42	7.24	543.34	0.78	33.00	0.45	-12.51
Last 5	11:22:52	720.01	18.69	7.24	542.77	0.53	32.97	0.44	-9.17
Last 5	11:25:52	900.01	18.52	7.24	541.15	0.43	33.00	0.44	-3.88
Last 5	11:28:52	1080.01	18.17	7.24	540.52	0.50	33.00	0.43	3.67
Variance 0			0.27	-0.00	-0.56			-0.01	3.34
Variance 1			-0.16	-0.00	-1.62			-0.00	5.29
Variance 2			-0.36	0.00	-0.64			-0.00	7.55

Notes

Prepurged 1.75 L
Well performed well

Grab Samples

BGWA-6
Metals
BGWA-6
Inorganics

BGWA-6
Radium



Product Name: Low-Flow System

Date: 2019-04-01 10:53:53

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 101 ft

Pump placement from TOC 95.1 ft

Well Information:

Well ID BGWA-29
Well diameter 2 in
Well Total Depth 100.1 ft
Screen Length 10 ft
Depth to Water 37.01 ft

Pumping Information:

Final Pumping Rate 135 mL/min
Total System Volume 0.9358057 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 5.42 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:35:50	1448.02	16.51	7.78	208.76	0.57	37.03	7.67	69.38
Last 5	10:39:50	1688.02	16.51	7.81	208.03	0.48	37.03	7.75	66.62
Last 5	10:43:51	1929.02	16.65	7.83	207.56	0.42	37.03	7.80	65.51
Last 5	10:47:51	2169.02	16.74	7.86	207.11	0.28	37.03	7.91	63.57
Last 5	10:51:51	2409.02	16.84	7.85	206.22	0.24	37.03	7.91	64.14
Variance 0			0.13	0.03	-0.46			0.05	-1.11
Variance 1			0.09	0.03	-0.45			0.11	-1.94
Variance 2			0.10	-0.01	-0.89			0.01	0.57

Notes

Prepurged 0.5L

Grab Samples

BGWA-29
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-02 12:53:12

Project Information:

Operator Name Kevin Stephenson
Company Name Resolute
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

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

Pump placement from TOC 76.36 ft

Well Information:

Well ID BGWA-33
Well diameter 2 in
Well Total Depth 81.36 ft
Screen Length 10 ft
Depth to Water 60.43 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.551537 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 125.52 in
Total Volume Pumped 11.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	12:34:44	5999.98	16.67	7.67	465.72	2.02	69.97	1.66	21.48
Last 5	12:38:44	6239.98	16.94	7.67	467.08	2.54	70.20	1.65	20.68
Last 5	12:42:44	6479.98	17.07	7.67	467.19	2.50	70.45	1.64	19.75
Last 5	12:46:44	6719.97	17.34	7.67	467.19	2.64	70.68	1.64	19.09
Last 5	12:50:44	6959.97	17.43	7.67	466.92	2.44	70.89	1.64	18.73
Variance 0			0.13	0.00	0.11			-0.01	-0.94
Variance 1			0.27	-0.00	-0.00			0.00	-0.66
Variance 2			0.09	0.00	-0.26			0.00	-0.36

Notes

Pre-purged 1 liter. Water level dropped below top of screen. Complete evacuation method initiated. Samples to be collected 4/3/19.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 16:05:29

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 88 ft

Pump placement from TOC 82.5 ft

Well Information:

Well ID BGWC-7
Well diameter 2 in
Well Total Depth 87.5 ft
Screen Length 10 ft
Depth to Water 41.76 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.8727813 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 436.32 in
Total Volume Pumped 28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	15:45:12	12779.77	19.31	6.99	1006.02	0.17	76.00	0.27	-50.31
Last 5	15:48:12	12959.77	19.31	6.99	1003.40	0.22	76.50	0.27	-50.16
Last 5	15:51:12	13139.77	19.33	6.99	1004.48	0.19	77.00	0.27	-50.14
Last 5	15:54:11	13319.77	19.23	6.99	1003.99	0.23	77.55	0.27	-49.77
Last 5	15:57:11	13499.76	19.06	6.99	1008.28	0.17	78.10	0.28	-49.81
Variance 0			0.03	-0.00	1.08			0.00	0.02
Variance 1			-0.11	-0.00	-0.50			-0.00	0.38
Variance 2			-0.17	-0.00	4.30			0.01	-0.04

Notes

Prepurged 1L

At 1228 dropped pump rate to 100ml/min due to drawdown issues. Water level dropped below top of screen at 1558. Performed complete evacuation. Purged total volume of 28 L, which includes the 1 prepurged L.

Grab Samples



Product Name: Low-Flow System

Date: 2019-04-01 12:34:03

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 80 ft

Pump placement from TOC 74.73 ft

Well Information:

Well ID BGWC-8
Well diameter 2 in
Well Total Depth 79.73 ft
Screen Length 10 ft
Depth to Water 43.27 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.8420739 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	12:15:47	480.03	17.54	7.50	318.95	0.66	43.27	4.98	80.16
Last 5	12:19:47	720.03	17.43	7.56	318.49	0.59	43.26	5.03	80.13
Last 5	12:23:51	964.03	17.54	7.56	318.72	0.88	43.28	5.02	79.34
Last 5	12:27:51	1204.02	17.54	7.55	318.72	1.08	43.29	4.99	80.54
Last 5	12:31:51	1444.02	17.58	7.57	319.22	1.11	43.29	4.95	81.85
Variance 0			0.11	0.00	0.23			-0.01	-0.79
Variance 1			-0.00	-0.01	-0.00			-0.03	1.20
Variance 2			0.04	0.02	0.49			-0.04	1.31

Notes

Prepurged 0.25L

Grab Samples

BGWC-8
Metals, inorganics, radium

Product Name: Low-Flow System

Date: 2019-04-01 14:00:36

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 64 ft

Pump placement from TOC 58.74 ft

Well Information:

Well ID BGWC-9
Well diameter 2 in
Well Total Depth 63.74 ft
Screen Length 10 ft
Depth to Water 26.22 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.770659 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 1.08 in
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	13:43:36	240.03	18.17	7.04	542.11	0.64	26.28	0.49	80.82
Last 5	13:47:36	480.03	18.09	6.98	550.90	0.63	26.30	0.22	69.27
Last 5	13:51:36	720.03	18.13	6.96	545.99	1.35	26.30	0.15	60.70
Last 5	13:55:36	960.03	18.14	7.00	535.61	1.91	26.30	0.13	52.41
Last 5	13:59:36	1200.02	18.12	7.03	531.32	2.13	26.31	0.12	47.60
Variance 0			0.04	-0.01	-4.91			-0.07	-8.57
Variance 1			0.01	0.03	-10.38			-0.02	-8.29
Variance 2			-0.01	0.03	-4.29			-0.01	-4.81

Notes

Grab Samples

BGWC-9
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-02 16:16:23

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 63 ft

Pump placement from TOC 57.36 ft

Well Information:

Well ID BGWC-10
Well diameter 2 in
Well Total Depth 62.36 ft
Screen Length 10 ft
Depth to Water 24.23 ft

Pumping Information:

Final Pumping Rate 105 mL/min
Total System Volume 0.7661957 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 293.6 in
Total Volume Pumped 9.69 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	15:56:16	4567.01	17.72	7.55	553.51	0.41	47.93	1.99	44.84
Last 5	16:00:16	4807.01	17.99	7.54	552.70	0.40	48.15	1.85	42.85
Last 5	16:04:27	5058.01	18.16	7.54	551.09	0.53	48.43	1.89	40.85
Last 5	16:08:27	5298.01	18.25	7.54	551.38	0.55	48.58	1.85	39.27
Last 5	16:12:27	5538.01	17.64	7.54	551.95	0.49	48.70	1.77	37.81
Variance 0			0.18	-0.00	-1.61			0.04	-2.00
Variance 1			0.08	-0.00	0.29			-0.03	-1.58
Variance 2			-0.60	0.00	0.57			-0.09	-1.46

Notes

Prepurged 14L

Grab Samples

BGWC-10
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-01 15:11:07

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 79 ft

Pump placement from TOC 73.3 ft

Well Information:

Well ID BGWC-12
Well diameter 2 in
Well Total Depth 78.3 ft
Screen Length 10 ft
Depth to Water 34.83 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.8376105 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 4.44 in
Total Volume Pumped 2.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	14:53:17	240.03	18.27	7.22	821.42	2.06	35.10	2.93	33.58
Last 5	14:57:17	480.03	18.12	7.24	810.51	0.90	35.16	3.04	32.07
Last 5	15:01:17	720.03	18.13	7.24	809.57	1.11	35.20	3.11	32.14
Last 5	15:05:17	960.03	18.10	7.24	811.06	1.78	35.20	3.12	32.65
Last 5	15:09:17	1200.02	18.12	7.23	823.13	1.86	35.20	3.09	33.36
Variance 0			0.01	-0.00	-0.94			0.07	0.07
Variance 1			-0.03	-0.00	1.49			0.00	0.52
Variance 2			0.02	-0.00	12.07			-0.03	0.71

Notes

Prepurged 0.5L

Grab Samples

BGWC-12
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-02 15:32:29

Project Information:

Operator Name Kevin Stephenson
Company Name Resolute
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 88 ft

Pump placement from TOC 86.50 ft

Well Information:

Well ID BGWC-14
Well diameter 2 in
Well Total Depth 88.08 ft
Screen Length 10 ft
Depth to Water 80.31 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.5827813 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 30.48 in
Total Volume Pumped 5.28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	15:12:06	1920.01	18.36	7.32	897.61	0.88	82.28	4.02	46.96
Last 5	15:16:06	2160.01	18.23	7.33	898.98	0.92	82.41	4.40	46.85
Last 5	15:20:06	2400.01	17.96	7.33	898.38	0.84	82.56	4.75	46.62
Last 5	15:24:06	2640.01	17.81	7.33	900.61	0.86	82.71	4.91	46.60
Last 5	15:28:06	2880.01	18.34	7.33	906.66	0.72	82.85	4.86	46.29
Variance 0			-0.26	0.01	-0.60			0.35	-0.23
Variance 1			-0.16	-0.00	2.24			0.16	-0.02
Variance 2			0.53	-0.01	6.05			-0.06	-0.31

Notes

Pre-purged 1 liter. Water level started in screen. Complete evacuation method initiated. >1 well volume purged and 48hr recharge as per well specific instructions. Samples to be collected 4/4/19.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 13:21:41

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 49 ft

Pump placement from TOC 43.99 ft

Well Information:

Well ID BGWC-16
Well diameter 2 in
Well Total Depth 48.99 ft
Screen Length 10 ft
Depth to Water 15.48 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.6987078 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 1.2 in
Total Volume Pumped 2.1 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	13:06:02	180.06	18.89	6.77	819.05	0.05	15.56	0.32	108.11
Last 5	13:09:02	360.02	18.86	6.76	818.61	0.14	15.57	0.28	138.75
Last 5	13:12:02	540.01	18.70	6.76	816.47	0.32	15.58	0.24	166.11
Last 5	13:15:02	720.01	18.88	6.75	817.07	0.09	15.58	0.21	189.26
Last 5	13:18:02	900.01	18.70	6.75	816.79	0.08	15.58	0.18	214.33
Variance 0			-0.16	-0.01	-2.14			-0.04	27.36
Variance 1			0.17	-0.00	0.60			-0.03	23.15
Variance 2			-0.18	0.00	-0.28			-0.03	25.06

Notes

Prepurged 2L
Well performed well

Grab Samples

BGWC-16
Metals
BGWC-16
Inorganics

BGWC-16
Radium



Product Name: Low-Flow System

Date: 2019-04-02 14:42:29

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 68.1 ft

Pump placement from TOC 63.10 ft

Well Information:

Well ID BGWC-17
Well diameter 2 in
Well Total Depth 68.10 ft
Screen Length 10 ft
Depth to Water 14.4 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.7839591 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 2.63 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	14:26:08	540.02	18.03	7.23	519.64	0.97	14.43	0.53	295.39
Last 5	14:29:08	720.01	18.10	7.23	520.31	0.99	14.42	0.50	271.98
Last 5	14:32:08	900.01	18.09	7.22	518.99	0.57	14.42	0.48	258.69
Last 5	14:35:08	1080.00	18.66	7.22	521.12	0.68	14.42	0.45	252.75
Last 5	14:38:08	1260.00	18.66	7.22	520.25	0.45	14.42	0.47	269.67
Variance 0			-0.01	-0.00	-1.32			-0.03	-13.29
Variance 1			0.57	-0.01	2.13			-0.02	-5.94
Variance 2			-0.01	0.00	-0.87			0.01	16.92

Notes

Prepurged 1L
Actually prepurged 2L

Grab Samples

BGWC-17
Metals
BGWC-17
Inorganics

BGWC-17
Radium



Product Name: Low-Flow System

Date: 2019-04-02 16:33:11

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 38 ft

Pump placement from TOC 32.82 ft

Well Information:

Well ID BGWC-18
Well diameter 2 in
Well Total Depth 37.82 ft
Screen Length 10 ft
Depth to Water 13.34 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.6496101 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 0.6 in
Total Volume Pumped 4.5 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	16:11:33	1080.01	17.81	6.51	434.13	0.49	13.39	0.80	101.90
Last 5	16:14:33	1260.00	17.38	6.50	432.49	0.37	13.39	0.75	107.89
Last 5	16:17:33	1440.00	17.14	6.49	437.70	0.33	13.39	0.73	115.33
Last 5	16:20:33	1619.99	17.64	6.49	435.81	0.29	13.39	0.69	126.25
Last 5	16:23:33	1800.00	17.72	6.48	432.68	0.26	13.39	0.67	142.00
Variance 0			-0.24	-0.01	5.21			-0.02	7.44
Variance 1			0.50	-0.00	-1.89			-0.04	10.92
Variance 2			0.07	-0.01	-3.13			-0.02	15.75

Notes

Prepurged 1.5L
Well performed well

Grab Samples

BGWC-18
Metals
BGWC-18
Inorganics

BGWC-18
Radium
DUP-2
Metals
DUP-2
Inorganics
DUP-2
Radium



Product Name: Low-Flow System

Date: 2019-04-03 11:55:08

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 55 ft

Pump placement from TOC 49.70 ft

Well Information:

Well ID BGWC-19
Well diameter 2 in
Well Total Depth 54.70 ft
Screen Length 10 ft
Depth to Water 15.10 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.7254883 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 2.88 in
Total Volume Pumped 3.12 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	11:39:59	720.01	18.06	6.62	413.54	1.46	15.34	0.60	12.77
Last 5	11:42:59	900.01	18.12	6.60	412.95	0.61	15.34	0.58	19.88
Last 5	11:45:59	1080.00	18.10	6.59	413.83	1.59	15.34	0.59	29.50
Last 5	11:48:59	1260.00	18.11	6.58	413.16	0.82	15.34	0.60	44.52
Last 5	11:51:59	1440.00	18.21	6.58	412.79	0.63	15.34	0.65	66.60
Variance 0			-0.03	-0.01	0.88			0.02	9.62
Variance 1			0.01	-0.00	-0.67			0.01	15.02
Variance 2			0.10	-0.00	-0.37			0.05	22.08

Notes

Prepurged 0.5 L
Well performed well

Grab Samples

BGWC-19
Metals
BGWC-19
Inorganics

BGWC-19
Radium



Product Name: Low-Flow System

Date: 2019-04-03 10:29:57

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 50 ft

Pump placement from TOC 44.74 ft

Well Information:

Well ID BGWC-20
Well diameter 2 in
Well Total Depth 49.74 ft
Screen Length 10 ft
Depth to Water 14.73 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.7031711 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 74.4 in
Total Volume Pumped 6.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:14:29	2519.98	16.25	7.13	1529.31	0.23	20.30	1.52	9.29
Last 5	10:17:29	2699.97	16.43	7.14	1529.87	0.16	20.49	1.46	6.05
Last 5	10:20:29	2879.97	16.51	7.14	1532.41	0.12	20.65	1.44	3.28
Last 5	10:23:29	3059.97	16.60	7.14	1532.84	0.15	20.80	1.38	0.84
Last 5	10:26:29	3239.96	16.65	7.14	1535.16	0.13	20.93	1.31	-1.29
Variance 0			0.08	0.00	2.54			-0.02	-2.77
Variance 1			0.09	0.00	0.43			-0.06	-2.44
Variance 2			0.04	0.00	2.31			-0.06	-2.14

Notes

Prepurged 0.5 L
Well performed well.

Grab Samples

BGWC-20

Metals

BGWC-20

Inorganics

BGWC-20
Radium



Product Name: Low-Flow System

Date: 2019-04-03 14:04:30

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 54 ft

Pump placement from TOC 48.35 ft

Well Information:

Well ID BGWC-21
Well diameter 2 in
Well Total Depth 53.35 ft
Screen Length 10 ft
Depth to Water 16.92 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.7210249 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 6.24 in
Total Volume Pumped 2.31 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	13:48:58	540.02	19.68	7.69	398.07	2.54	17.41	0.57	3.56
Last 5	13:51:58	720.01	19.64	7.70	399.13	2.46	17.43	0.49	-1.82
Last 5	13:54:58	900.01	19.49	7.69	398.88	2.68	17.44	0.40	-7.48
Last 5	13:57:58	1080.01	19.48	7.69	399.62	2.34	17.44	0.36	-13.42
Last 5	14:00:58	1260.00	19.44	7.69	400.31	2.39	17.44	0.34	-19.66
Variance 0			-0.14	-0.00	-0.25			-0.09	-5.67
Variance 1			-0.01	-0.00	0.74			-0.04	-5.93
Variance 2			-0.04	-0.00	0.69			-0.02	-6.24

Notes

Prepurged 1.5L
Well performed well

Grab Samples

BGWC-21
Metals
BGWC-21
Inorganics

BGWC-21
Radium



Product Name: Low-Flow System

Date: 2019-04-03 11:16:50

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 43 ft

Pump placement from TOC 38.05 ft

Well Information:

Well ID BGWC-22
Well diameter 2 in
Well Total Depth 43.05 ft
Screen Length 10 ft
Depth to Water 24.18 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.6769272 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 4.44 in
Total Volume Pumped 4.68 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:58:40	1200.02	18.08	6.79	3254.80	3.35	24.60	0.58	89.83
Last 5	11:02:40	1440.01	18.18	6.78	3259.41	1.74	24.60	0.54	88.82
Last 5	11:06:40	1680.01	18.18	6.78	3270.84	1.65	24.60	0.47	87.70
Last 5	11:10:40	1920.00	18.30	6.78	3274.70	1.37	24.58	0.40	86.55
Last 5	11:14:40	2160.00	18.34	6.77	3287.98	1.47	24.55	0.35	85.62
Variance 0			-0.00	-0.00	11.43			-0.07	-1.12
Variance 1			0.12	-0.00	3.86			-0.07	-1.14
Variance 2			0.04	-0.00	13.28			-0.06	-0.93

Notes

Prepurged 0.5L

Grab Samples

BGWC-22
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-03 09:37:14

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 52 ft

Pump placement from TOC 46.3 ft

Well Information:

Well ID BGWC-23
Well diameter 2 in
Well Total Depth 51.3 ft
Screen Length 10 ft
Depth to Water 29.97 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.717098 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 14.4 in
Total Volume Pumped 3.08 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	09:17:51	720.02	16.31	7.04	2688.70	1.02	31.37	0.68	96.89
Last 5	09:21:51	960.02	16.22	7.01	2745.15	0.91	31.35	0.58	93.59
Last 5	09:25:51	1200.00	15.82	7.01	2790.84	0.57	31.28	0.44	90.86
Last 5	09:29:51	1440.00	15.89	7.00	2849.61	0.42	31.28	0.38	88.32
Last 5	09:33:51	1680.00	15.79	7.00	2880.99	0.27	31.17	0.36	85.94
Variance 0			-0.40	-0.00	45.69			-0.14	-2.73
Variance 1			0.08	-0.01	58.78			-0.06	-2.54
Variance 2			-0.11	0.00	31.38			-0.03	-2.38

Notes

Prepurged 0.5L

Grab Samples

BGWC-23
Metals, inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-03 16:35:02

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 66.09 ft

Pump placement from TOC 61.09 ft

Well Information:

Well ID BGWC-24
Well diameter 2 in
Well Total Depth 66.09 ft
Screen Length 10 ft
Depth to Water 13.16 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.7749877 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 89.76 in
Total Volume Pumped 8.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	16:19:01	3779.96	19.97	6.57	6384.04	0.19	20.03	0.14	21.31
Last 5	16:22:01	3959.95	20.02	6.57	6357.24	0.17	20.17	0.17	21.13
Last 5	16:25:01	4139.95	20.01	6.57	6318.67	0.28	20.35	0.19	20.91
Last 5	16:28:01	4319.94	19.99	6.57	6281.32	0.05	20.48	0.17	20.65
Last 5	16:31:01	4499.94	20.05	6.57	6252.19	0.24	20.64	0.18	20.50
Variance 0			-0.01	0.00	-38.56			0.01	-0.21
Variance 1			-0.02	0.00	-37.36			-0.01	-0.26
Variance 2			0.06	0.00	-29.13			0.00	-0.15

Notes

Prepurged 1.9 L

Grab Samples

BGWC-24

Metals

BGWC-24

Inorganics

BGWC-24

Radium

Product Name: Low-Flow System

Date: 2019-04-04 10:25:26

Project Information:

Operator Name Veronica Fay
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463068
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Dedicated Pump
Tubing Type LDPE
Tubing Diameter 0.17 in
Tubing Length 59.0 ft

Pump placement from TOC 53.37 ft

Well Information:

Well ID BGWC-25
Well diameter 2 in
Well Total Depth 58.37 ft
Screen Length 10 ft
Depth to Water 15.75 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.7433419 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 79.8 in
Total Volume Pumped 1.8 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	10:10:12	360.02	17.81	7.37	402.02	1.49	22.23	0.08	2.96
Last 5	10:13:12	540.01	18.08	7.37	403.09	1.28	22.28	0.09	-1.81
Last 5	10:16:12	720.01	18.12	7.38	402.45	1.34	22.33	0.10	-5.51
Last 5	10:19:12	900.01	17.99	7.38	402.86	1.32	22.36	0.11	-10.13
Last 5	10:22:12	1080.00	17.91	7.38	403.26	1.28	22.40	0.12	-14.54
Variance 0			0.04	0.01	-0.64			0.01	-3.70
Variance 1			-0.13	-0.00	0.41			0.01	-4.62
Variance 2			-0.08	0.00	0.40			0.01	-4.42

Notes

Prepurged 6.5L

Grab Samples

BGWC-25

Metals

BGWC-25

Inorganics

BGWC-25

Radium

DUP-3
Metals
DUP-3
Inorganics
DUP-3
Radium



Product Name: Low-Flow System

Date: 2019-04-02 10:22:15

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 62 ft

Pump placement from TOC 56.03 ft

Well Information:

Well ID BGWC-30
Well diameter 2 in
Well Total Depth 61.03 ft
Screen Length 10 ft
Depth to Water 17.83 ft

Pumping Information:

Final Pumping Rate 155 mL/min
Total System Volume 0.7617322 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0 in
Total Volume Pumped 3.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:04:52	240.03	18.16	7.19	1380.85	0.45	17.81	2.86	95.69
Last 5	10:08:52	480.03	18.03	7.20	1378.15	0.35	17.80	2.88	92.12
Last 5	10:12:52	720.03	17.95	7.21	1381.02	0.28	17.81	2.90	90.70
Last 5	10:16:52	960.03	18.43	7.21	1377.60	0.26	17.81	2.87	90.22
Last 5	10:20:52	1200.03	18.57	7.22	1373.94	0.19	17.81	2.83	89.02
Variance 0			-0.08	0.01	2.87			0.03	-1.43
Variance 1			0.48	0.00	-3.42			-0.03	-0.47
Variance 2			0.14	0.01	-3.66			-0.03	-1.21

Notes

Prepurged 4L

Grab Samples

BGWC-30
Metals, inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-04 11:10:37

Project Information:

Operator Name Brian Steele
Company Name Resolute Env
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 55 ft

Pump placement from TOC 44.70 ft

Well Information:

Well ID BGWC-31
Well diameter 2 in
Well Total Depth 49.70 ft
Screen Length 10 ft
Depth to Water 14.33 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.435488 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 2.76 in
Total Volume Pumped 20.8 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	10:51:45	5279.97	17.01	7.17	641.25	5.33	14.56	0.16	-59.85
Last 5	10:55:45	5519.97	17.16	7.18	640.54	5.18	14.56	0.15	-62.43
Last 5	10:59:45	5759.96	17.24	7.18	641.28	5.02	14.56	0.14	-64.73
Last 5	11:03:45	5999.96	17.27	7.18	641.88	5.07	14.56	0.13	-66.81
Last 5	11:07:45	6239.96	17.25	7.19	640.84	4.66	14.56	0.13	-68.72
Variance 0			0.08	0.00	0.75			-0.01	-2.30
Variance 1			0.04	0.00	0.59			-0.02	-2.09
Variance 2			-0.02	0.01	-1.04			0.01	-1.91

Notes

Pre purged 200 mL

Grab Samples

BGWC-31

Metals

BGWC-31

Inorganics

BGWC-31

Radium

Product Name: Low-Flow System

Date: 2019-04-04 13:54:20

Project Information:

Operator Name Brian Steele
Company Name Resolute Env
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 57 ft

Pump placement from TOC 47 ft

Well Information:

Well ID BGWC-32
Well diameter 2 in
Well Total Depth 51.22 ft
Screen Length 10 ft
Depth to Water 34.05 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.444415 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 84.6 in
Total Volume Pumped 9.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	13:35:36	4079.98	18.59	7.31	1208.98	2.46	40.40	0.38	-19.55
Last 5	13:39:36	4319.98	18.59	7.30	1224.74	2.35	40.55	0.34	-21.46
Last 5	13:43:36	4560.02	18.66	7.29	1242.63	2.18	40.70	0.33	-23.51
Last 5	13:47:36	4800.00	18.54	7.29	1250.96	2.14	40.85	0.32	-25.07
Last 5	13:51:36	5039.97	18.54	7.28	1270.73	1.63	41.10	0.32	-26.33
Variance 0			0.08	-0.01	17.89			-0.01	-2.05
Variance 1			-0.12	-0.00	8.33			-0.01	-1.56
Variance 2			-0.00	-0.01	19.77			0.00	-1.26

Notes

Prepurged 250 ml

Purge only sample, complete evacuation. Dropped pump rate to 100ml/min after 20 min of pumping. Performed complete evac., water level dropped below top of screen. Removed an additional 13L.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-04 15:52:06

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 80 ft

Pump placement from TOC 74.75 ft

Well Information:

Well ID BGWC-34D
Well diameter 2 in
Well Total Depth 79.75 ft
Screen Length 10 ft
Depth to Water 14.16 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.547074 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 158.4 in
Total Volume Pumped 15.36 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	15:32:26	6720.99	17.90	7.33	697.72	4.06	26.80	0.03	-109.50
Last 5	15:36:26	6960.99	17.90	7.32	697.55	3.42	27.01	0.03	-110.09
Last 5	15:40:26	7200.98	18.02	7.32	696.94	4.22	27.20	0.03	-111.13
Last 5	15:44:26	7440.98	18.01	7.32	697.19	3.61	27.28	0.04	-111.32
Last 5	15:48:26	7680.98	18.04	7.32	696.96	2.95	27.36	0.04	-111.87
Variance 0			0.12	-0.00	-0.61			0.00	-1.04
Variance 1			-0.01	-0.00	0.26			0.00	-0.19
Variance 2			0.03	-0.00	-0.23			0.00	-0.56

Notes

Prepurged 1L

Grab Samples

BGWC-34D
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-04 12:40:30

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

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

Pump placement from TOC 75.94 ft

Well Information:

Well ID BGWC-35D
Well diameter 2 in
Well Total Depth 80.94 ft
Screen Length 10 ft
Depth to Water 25.50 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.551537 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 9.6 in
Total Volume Pumped 17.28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	12:22:31	5521.00	18.66	7.18	2724.81	9.39	26.26	0.08	35.24
Last 5	12:26:31	5760.99	18.61	7.18	2733.25	5.19	26.28	0.07	34.74
Last 5	12:30:31	6000.99	18.63	7.19	2742.88	4.95	26.26	0.07	33.79
Last 5	12:34:31	6240.99	18.66	7.20	2746.21	4.62	26.29	0.07	32.86
Last 5	12:38:31	6480.99	18.65	7.20	2756.52	4.30	26.30	0.07	31.98
Variance 0			0.03	0.01	9.63			-0.00	-0.95
Variance 1			0.02	0.01	3.33			-0.00	-0.92
Variance 2			-0.01	0.01	10.31			-0.00	-0.89

Notes

Prepurged 0.5L

Grab Samples

BGWC-35D
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-04-02 12:09:36

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name April 2019 AP
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 97 ft

Pump placement from TOC 91.35 ft

Well Information:

Well ID BGWC-36D
Well diameter 2 in
Well Total Depth 96.35 ft
Screen Length 10 ft
Depth to Water 17.82 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.622952 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0 in
Total Volume Pumped 4.48 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:51:41	960.03	19.87	6.51	1608.30	9.97	17.80	0.56	115.10
Last 5	11:55:41	1200.03	19.86	6.48	1609.31	8.69	17.82	0.52	116.00
Last 5	11:59:41	1440.03	19.86	6.47	1617.86	4.91	17.81	0.49	115.96
Last 5	12:03:41	1680.03	20.04	6.47	1625.43	4.49	17.79	0.46	115.59
Last 5	12:07:41	1920.03	19.82	6.48	1627.15	4.77	17.82	0.43	115.55
Variance 0			-0.00	-0.01	8.56			-0.03	-0.05
Variance 1			0.18	0.00	7.57			-0.03	-0.37
Variance 2			-0.21	0.01	1.72			-0.03	-0.04

Notes

Prepurged 0.75L

Grab Samples

BGWC-36D
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-05-02 14:10:55

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Resample May 2019
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 642531
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 90 ft

Pump placement from TOC 84.21 ft

Well Information:

Well ID BGWA-2
Well diameter 2 in
Well Total Depth 89.21 ft
Screen Length 10 ft
Depth to Water 46.97 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.886708 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 10.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	13:53:38	4079.98	19.39	7.75	395.48	0.64	47.00	1.40	-6.48
Last 5	13:57:38	4319.98	19.57	7.74	397.40	0.67	47.00	1.48	-5.00
Last 5	14:01:38	4559.98	19.50	7.73	395.18	0.72	47.01	1.55	-3.87
Last 5	14:05:38	4799.97	19.49	7.72	396.43	0.77	47.01	1.64	-1.84
Last 5	14:09:38	5039.97	19.41	7.71	397.59	0.90	47.01	1.71	-0.80
Variance 0			-0.07	-0.01	-2.22			0.07	1.13
Variance 1			-0.01	-0.01	1.25			0.09	2.03
Variance 2			-0.08	-0.01	1.15			0.07	1.04

Notes

Prepurged 1.0L

Grab Samples

BGWA-2
Metals, Inorganics

Product Name: Low-Flow System

Date: 2019-05-02 11:09:38

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Resample May 2019
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 642531
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 43 ft

Pump placement from TOC 38.05 ft

Well Information:

Well ID BGWC-22
Well diameter 2 in
Well Total Depth 43.05 ft
Screen Length 10 ft
Depth to Water 24.58 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.6769272 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 5.88 in
Total Volume Pumped 4.16 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:51:18	960.07	19.72	6.92	3652.17	1.36	25.11	0.73	11.60
Last 5	10:55:18	1200.03	19.94	6.92	3662.15	0.80	25.10	0.58	9.14
Last 5	10:59:18	1440.01	20.03	6.92	3664.28	0.71	25.10	0.48	6.87
Last 5	11:03:18	1680.01	19.99	6.92	3674.12	0.68	25.09	0.39	5.42
Last 5	11:07:18	1920.01	20.13	6.92	3679.43	0.69	25.07	0.34	4.43
Variance 0			0.09	0.00	2.14			-0.11	-2.28
Variance 1			-0.04	0.00	9.83			-0.08	-1.45
Variance 2			0.14	-0.00	5.32			-0.05	-0.99

Notes

Prepurged 1.5L

Grab Samples

BGWC-22
Metals, Inorganics

Product Name: Low-Flow System

Date: 2019-05-03 10:55:58

Project Information:

Operator Name Veronica Fay
Company Name Resolute
Project Name Development
Site Name Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613179
Turbidity Make/Model LaMott 2020we

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 52 ft

Pump placement from TOC 46.22 ft

Well Information:

Well ID BGWC-32
Well diameter 2 in
Well Total Depth 51.22 ft
Screen Length 10 ft
Depth to Water 34.24 ft

Pumping Information:

Final Pumping Rate 105 mL/min
Total System Volume 0.422098 L
Calculated Sample Rate 180 sec
Stabilization Drawdown 59.04 in
Total Volume Pumped 4.41 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:30:24	1800.00	19.82	7.20	1572.44	2.17	38.68	2.86	89.03
Last 5	10:33:24	1980.00	19.74	7.20	1570.51	2.58	38.83	2.85	89.39
Last 5	10:36:24	2159.99	19.99	7.19	1569.13	2.21	38.95	2.82	89.69
Last 5	10:39:24	2339.99	20.04	7.19	1568.41	2.08	39.06	2.76	90.09
Last 5	10:42:24	2519.99	19.59	7.18	1581.02	1.51	39.16	2.56	91.03
Variance 0			0.25	-0.00	-1.38			-0.04	0.29
Variance 1			0.05	-0.00	-0.73			-0.06	0.40
Variance 2			-0.45	-0.01	12.62			-0.19	0.94

Notes

Prepurged 0.25 L

Well has a bit of a drawdown issue. Draw down does stabilize after roughly 40 minutes of pumping.

Grab Samples

BGWC-32

Metals

BGWC-32

Inorganics

Product Name: Low-Flow System

Date: 2019-05-03 10:36:33

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Development
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 642531
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 110 ft

Pump placement from TOC 104.5 ft

Well Information:

Well ID BGWC-37D
Well diameter 2 in
Well Total Depth 109.5 ft
Screen Length 10 ft
Depth to Water 26.15 ft

Pumping Information:

Final Pumping Rate 105 mL/min
Total System Volume 0.6809765 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 43.8 in
Total Volume Pumped 3.76 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:17:10	960.02	19.68	7.50	1297.89	4.04	29.35	0.17	59.31
Last 5	10:21:10	1200.01	19.96	7.50	1289.08	3.50	29.64	0.16	35.46
Last 5	10:25:10	1440.01	19.88	7.51	1277.23	3.34	29.71	0.16	20.44
Last 5	10:29:10	1680.01	19.99	7.51	1268.63	2.81	29.78	0.16	9.85
Last 5	10:33:10	1920.01	20.03	7.51	1260.35	2.07	29.80	0.16	2.05
Variance 0			-0.08	0.01	-11.85			0.00	-15.03
Variance 1			0.11	0.00	-8.60			-0.01	-10.59
Variance 2			0.04	0.00	-8.28			0.00	-7.80

Notes

Prepurged 1.5 L

Grab Samples

BGWC-37D
Metals

Product Name: Low-Flow System

Date: 2019-05-02 16:06:46

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Development
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 642531
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 129 ft

Pump placement from TOC 123.2 ft

Well Information:

Well ID BGWC-38D
Well diameter 2 in
Well Total Depth 128.2 ft
Screen Length 10 ft
Depth to Water 19.88 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 1.060781 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7.28 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	15:48:56	2400.00	22.70	7.32	1831.32	4.28	19.91	0.64	12.90
Last 5	15:52:56	2640.00	22.76	7.32	1823.14	4.29	19.92	0.53	10.96
Last 5	15:56:56	2879.99	22.89	7.32	1825.04	4.14	19.92	0.46	9.96
Last 5	16:00:56	3119.99	23.02	7.32	1824.04	4.32	19.85	0.42	8.82
Last 5	16:04:56	3359.99	22.98	7.32	1905.47	3.57	19.85	0.35	-61.53
Variance 0			0.13	0.00	1.91			-0.07	-1.00
Variance 1			0.13	-0.00	-1.00			-0.04	-1.14
Variance 2			-0.04	0.01	81.43			-0.07	-70.35

Notes

Prepurged 1.5L

Grab Samples

BGWC-38D

Metals

DUP-01

Metals

Product Name: Low-Flow System

Date: 2019-07-09 11:56:50

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name July 2019 Ash Pond Resample
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 501336
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 85 ft

Pump placement from TOC 79.8 ft

Well Information:

Well ID BGWA-33
Well diameter 2 in
Well Total Depth 80.84 ft
Screen Length 10 ft
Depth to Water 73.88 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.569391 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 45 in
Total Volume Pumped 6.03 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	11:29:26	2646.93	22.53	7.81	473.22	6.70	77.17	1.13	18.11
Last 5	11:33:26	2886.93	22.76	7.83	447.44	6.59	77.42	0.90	15.41
Last 5	11:37:28	3128.93	22.66	7.84	444.35	5.15	77.56	0.69	14.70
Last 5	11:41:38	3378.93	23.11	7.83	448.11	4.23	77.79	0.56	13.97
Last 5	11:45:38	3618.93	23.21	7.83	450.48	4.81	77.97	0.50	13.84
Variance 0			-0.10	0.00	-3.09			-0.21	-0.71
Variance 1			0.45	-0.01	3.76			-0.13	-0.73
Variance 2			0.10	-0.00	2.37			-0.06	-0.13

Notes

Water level started below top of screen. Pre purged 0.5L

Decreased pump rate from 110 to 100 ml/min after 480sec. Water level still continued to drop too fast. TG from Resolute said to go ahead and sample after 1 stable (all but DTW) reading

Grab Samples
BGWA-33
Metals (B and Mo only)

Product Name: Low-Flow System

Date: 2019-09-23 09:52:26

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 90 ft

Pump placement from TOC 84.16 ft

Well Information:

Well ID BGWA-2
Well diameter 2 in
Well Total Depth 89.17 ft
Screen Length 10 ft
Depth to Water 62.61 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.491708 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 2.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	09:32:50	240.05	19.99	7.49	330.18	1.12	62.66	0.51	52.52
Last 5	09:36:50	480.02	20.20	7.52	326.05	0.84	62.65	0.30	43.27
Last 5	09:40:50	720.03	20.14	7.55	327.08	0.57	62.65	0.26	35.63
Last 5	09:44:50	960.03	20.24	7.57	328.39	0.28	62.65	0.25	28.79
Last 5	09:48:50	1200.03	20.30	7.58	329.76	0.41	62.65	0.27	22.93
Variance 0			-0.05	0.02	1.03			-0.05	-7.63
Variance 1			0.09	0.02	1.31			-0.00	-6.84
Variance 2			0.07	0.01	1.37			0.01	-5.86

Notes

Prepurged 2 liters

Grab Samples

BGWA-2

Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-23 11:29:26

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 63 ft

Pump placement from TOC 57.74 ft

Well Information:

Well ID BGWA-6
Well diameter 2 in
Well Total Depth 62.74 ft
Screen Length 10 ft
Depth to Water 48.12 ft

Pumping Information:

Final Pumping Rate 135 mL/min
Total System Volume 0.3711957 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.84 in
Total Volume Pumped 2.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:10:28	240.03	20.13	7.31	536.31	0.64	48.19	0.60	-27.17
Last 5	11:14:28	480.02	20.24	7.29	537.42	0.53	48.19	0.37	-27.07
Last 5	11:18:28	720.02	20.18	7.29	534.69	0.41	48.19	0.28	-24.69
Last 5	11:22:28	960.02	20.10	7.30	533.90	0.65	48.19	0.25	-22.59
Last 5	11:26:28	1200.06	20.39	7.28	538.18	0.53	48.19	0.24	-20.83
Variance 0			-0.06	-0.00	-2.73			-0.09	2.38
Variance 1			-0.08	0.01	-0.79			-0.02	2.10
Variance 2			0.29	-0.01	4.28			-0.01	1.76

Notes

Prepurged 2 liters

Grab Samples

BGWA-6
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-23 10:20:39

Project Information:

Operator Name Audrey Crafton
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 99 ft

Pump placement from TOC 94.03 ft

Well Information:

Well ID BGWA-29
Well diameter 2 in
Well Total Depth 99.03 ft
Screen Length 10 ft
Depth to Water 53.76 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.7968789 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.24 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
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:01:48	1680.04	18.74	7.89	208.80	0.28	53.78	7.10	80.41
Last 5	10:05:48	1920.02	18.88	7.93	209.06	0.20	53.78	7.07	78.63
Last 5	10:09:48	2160.31	19.04	7.96	209.27	0.12	53.78	7.00	77.75
Last 5	10:13:48	2400.31	19.32	7.95	209.22	0.15	53.78	6.96	76.22
Last 5	10:17:48	2640.31	19.55	7.98	209.52	0.27	53.78	6.94	74.79
Variance 0			0.16	0.03	0.21			-0.07	-0.88
Variance 1			0.28	-0.01	-0.04			-0.04	-1.53
Variance 2			0.22	0.02	0.30			-0.02	-1.43

Notes

Prepurged 0.5L

Grab Samples

BGWA-29
Metals, Inorganics, Radium
DUP-1
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-23 14:04:16

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

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

Pump placement from TOC 78.8 ft

Well Information:

Well ID BGWA-33
Well diameter 2 in
Well Total Depth 80.84 ft
Screen Length 10 ft
Depth to Water 76.11 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.5515373 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 43.8 in
Total Volume Pumped 4.8 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	13:43:11	1440.02	20.45	7.75	417.44	15.00	78.53	2.93	46.14
Last 5	13:47:11	1680.02	20.65	7.78	423.49	6.93	78.80	2.84	46.61
Last 5	13:51:11	1920.02	20.57	7.78	425.59	5.62	79.11	2.58	47.87
Last 5	13:55:11	2160.02	20.02	7.78	431.04	13.80	79.44	2.03	49.28
Last 5	13:59:11	2400.03	20.30	7.75	430.00	15.50	79.76	1.63	49.65
Variance 0			-0.08	0.00	2.10			-0.26	1.26
Variance 1			-0.55	-0.01	5.45			-0.55	1.41
Variance 2			0.28	-0.02	-1.04			-0.40	0.37

Notes

Water level started below top of screen. Purging/evacuating it dry and then letting it recharge. Will check water level next day.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-23 15:48:15

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 90 ft

Pump placement from TOC 85.40 ft

Well Information:

Well ID BGWC-7
Well diameter 2 in
Well Total Depth 90.40 ft
Screen Length 10 ft
Depth to Water 47.35 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.491708 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 3604.5 in1
Total Volume Pumped 17.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	15:29:35	9138.45	23.16	6.89	1018.11	0.30	77.03	0.34	-131.71
Last 5	15:33:37	9380.45	22.63	6.89	1023.88	0.36	77.81	0.34	-129.71
Last 5	15:37:37	9620.45	21.90	6.91	1023.35	0.24	78.38	0.35	-126.44
Last 5	15:41:37	9860.45	21.61	6.92	1030.16	0.31	79.10	0.37	-124.99
Last 5	15:45:37	10100.45	21.51	6.92	1029.05	0.55	81.60	0.39	-123.55
Variance 0			-0.73	0.01	-0.53			0.01	3.27
Variance 1			-0.29	0.01	6.81			0.02	1.45
Variance 2			-0.10	0.00	-1.11			0.02	1.44

Notes

Prepurged 2 liters
Water level below screen. Performing complete evacuation.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-24 10:13:08

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID BGWC-8
Well diameter 2 in
Well Total Depth 79.73 ft
Screen Length 10 ft
Depth to Water 48.73 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.4470738 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.12 in
Total Volume Pumped 2.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	09:54:19	240.06	21.90	7.37	340.80	0.87	48.74	5.27	118.24
Last 5	09:58:19	480.02	22.01	7.42	338.53	3.90	48.74	5.04	103.98
Last 5	10:02:19	720.02	21.99	7.46	338.94	4.29	48.74	4.96	93.65
Last 5	10:06:19	960.03	22.07	7.49	339.33	3.57	48.74	4.93	86.91
Last 5	10:10:19	1200.03	22.26	7.53	338.35	3.09	48.74	4.88	81.71
Variance 0			-0.02	0.04	0.41			-0.08	-10.33
Variance 1			0.07	0.04	0.39			-0.03	-6.74
Variance 2			0.20	0.03	-0.98			-0.05	-5.20

Notes

Prepurged 1.5 liters

Grab Samples

BGWC-8
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-24 12:03:10

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 64 ft

Pump placement from TOC 58.7 ft

Well Information:

Well ID BGWC-9
Well diameter 2 in
Well Total Depth 63.74 ft
Screen Length 10 ft
Depth to Water 32.17 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.3756591 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 2.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:45:24	240.06	20.98	7.20	612.06	1.42	32.21	0.44	-67.66
Last 5	11:49:24	480.02	20.40	7.17	610.22	1.32	32.21	0.27	-73.70
Last 5	11:53:24	720.02	20.76	7.14	608.60	1.27	32.21	0.21	-79.55
Last 5	11:57:24	960.02	21.28	7.13	594.56	1.96	32.21	0.18	-83.33
Last 5	12:01:24	1200.03	21.34	7.14	586.30	1.36	32.21	0.16	-84.22
Variance 0			0.37	-0.03	-1.62			-0.06	-5.85
Variance 1			0.52	-0.01	-14.04			-0.03	-3.79
Variance 2			0.06	0.00	-8.26			-0.02	-0.89

Notes

Prepurged 2 liters

Grab Samples

BGWC-9
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-24 15:40:22

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 62 ft

Pump placement from TOC 57.4 ft

Well Information:

Well ID BGWC-10
Well diameter 2 in
Well Total Depth 62.37 ft
Screen Length 10 ft
Depth to Water 30.62 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.3667322 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 37.13 in
Total Volume Pumped 23.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	15:23:17	6720.03	22.27	7.41	565.37	0.44	50.55	2.62	-59.28
Last 5	15:27:17	6960.04	21.82	7.41	566.06	0.56	50.91	2.51	-61.29
Last 5	15:31:17	7200.04	21.19	7.41	569.49	0.47	51.30	2.48	-62.47
Last 5	15:35:17	7440.05	21.70	7.40	567.73	0.52	51.68	2.43	-63.49
Last 5	15:39:17	7680.05	22.63	7.37	566.17	0.55	52.40	2.40	-64.72
Variance 0			-0.62	-0.00	3.43			-0.03	-1.18
Variance 1			0.50	-0.00	-1.76			-0.04	-1.01
Variance 2			0.94	-0.03	-1.56			-0.04	-1.24

Notes

Prepurged 2 liters
Water level below screen. Performing complete evacuation.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-25 14:02:38

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 78 ft

Pump placement from TOC 73.28 ft

Well Information:

Well ID BGWC-12
Well diameter 2 in
Well Total Depth 78.28 ft
Screen Length 10 ft
Depth to Water 40.62 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.438147 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 4.32 in
Total Volume Pumped 2.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	13:42:53	240.07	21.69	7.09	934.02	1.08	40.95	2.09	-83.30
Last 5	13:46:53	480.03	21.69	7.10	940.26	1.42	40.96	2.11	-39.32
Last 5	13:50:53	720.03	21.91	7.10	942.05	1.48	40.97	2.10	-14.90
Last 5	13:54:53	960.03	21.82	7.11	937.31	1.29	40.97	2.09	-2.02
Last 5	13:58:53	1200.03	21.62	7.10	947.62	1.38	40.98	2.11	5.82
Variance 0			0.22	0.01	1.79			-0.01	24.42
Variance 1			-0.09	0.01	-4.74			-0.01	12.89
Variance 2			-0.20	-0.01	10.31			0.02	7.84

Notes

Prepurged 2 liters

Grab Samples

BGWC-12
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-23 15:35:22

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 89 ft

Pump placement from TOC 87.8 ft

Well Information:

Well ID BGWC-14
Well diameter 2 in
Well Total Depth 88.84 ft
Screen Length 10 ft
Depth to Water 72.50 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.5872446 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 75.72 in
Total Volume Pumped 3.96 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	15:17:07	1200.02	23.38	7.67	836.73	2.41	76.50	7.35	42.10
Last 5	15:21:07	1440.02	23.06	7.68	839.48	2.27	76.97	7.39	41.13
Last 5	15:25:07	1680.02	23.21	7.70	840.70	1.59	77.31	7.39	40.00
Last 5	15:29:07	1920.02	23.52	7.72	840.93	1.13	78.02	7.44	38.96
Last 5	15:33:07	2160.17	22.82	7.74	840.61	1.45	78.81	7.75	38.50
Variance 0			0.15	0.02	1.22			-0.00	-1.13
Variance 1			0.31	0.02	0.23			0.05	-1.04
Variance 2			-0.70	0.02	-0.32			0.30	-0.46

Notes

Prepurged 1L
Well evacuated to top of screen. No samples taken.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-26 09:54:20

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 48 ft

Pump placement from TOC 43.9 ft

Well Information:

Well ID BGWC-16
Well diameter 2 in
Well Total Depth 48.87 ft
Screen Length 10 ft
Depth to Water 17.77 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.3042443 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 1.36 in
Total Volume Pumped 3.6 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	09:32:11	240.06	18.88	6.79	958.26	0.36	17.89	0.31	94.61
Last 5	09:40:11	720.02	18.91	6.73	955.19	0.58	17.90	0.28	79.01
Last 5	09:44:11	960.02	19.08	6.72	953.49	0.85	17.90	0.26	74.05
Last 5	09:48:11	1200.03	19.19	6.71	954.49	0.97	17.90	0.20	70.56
Last 5	09:52:11	1440.02	19.30	6.70	957.12	0.88	17.90	0.15	68.14
Variance 0			0.17	-0.01	-1.70			-0.02	-4.96
Variance 1			0.11	-0.01	0.99			-0.06	-3.48
Variance 2			0.12	-0.01	2.63			-0.05	-2.43

Notes

Prepurged 2 liters

Grab Samples

BGWC-16
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-26 11:31:48

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 69 ft

Pump placement from TOC 63.53 ft

Well Information:

Well ID BGWC-17
Well diameter 2 in
Well Total Depth 68.38 ft
Screen Length 10 ft
Depth to Water 16.53 ft

Pumping Information:

Final Pumping Rate 155 mL/min
Total System Volume 0.3979762 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 3.1 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	11:14:39	240.03	20.04	7.32	786.60	1.63	16.56	0.22	33.23
Last 5	11:18:39	480.02	19.99	7.32	787.51	1.35	16.56	0.21	39.64
Last 5	11:22:39	720.03	19.95	7.33	789.45	1.27	16.56	0.21	42.50
Last 5	11:26:39	960.02	19.99	7.32	791.73	1.16	16.56	0.19	45.04
Last 5	11:30:39	1200.03	19.91	7.32	799.81	1.39	16.56	0.13	46.82
Variance 0			-0.04	0.01	1.94			0.00	2.86
Variance 1			0.05	-0.01	2.28			-0.02	2.53
Variance 2			-0.08	-0.00	8.08			-0.06	1.79

Notes

Prepurged 2 liters

Grab Samples

BGWC-17
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-26 12:54:21

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 38 ft

Pump placement from TOC 32.95 ft

Well Information:

Well ID BGWC-18
Well diameter 2 in
Well Total Depth 37.95 ft
Screen Length 10 ft
Depth to Water 15.26 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2596101 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.24 in
Total Volume Pumped 3 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	12:36:17	240.02	20.66	7.03	721.27	1.55	15.28	0.16	41.77
Last 5	12:40:17	480.02	20.68	7.01	721.84	1.42	15.28	0.13	44.55
Last 5	12:44:17	720.02	21.02	7.00	724.02	1.31	15.28	0.11	45.69
Last 5	12:48:17	960.03	21.11	6.98	722.59	1.29	15.28	0.11	46.54
Last 5	12:52:17	1200.03	20.73	6.99	721.79	1.29	15.28	0.10	47.51
Variance 0			0.33	-0.02	2.18			-0.02	1.14
Variance 1			0.09	-0.01	-1.43			-0.00	0.85
Variance 2			-0.38	0.00	-0.80			-0.01	0.97

Notes

Prepurged 2 liters

Grab Samples

BGWC-18
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-26 14:02:43

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 55 ft

Pump placement from TOC 49.58 ft

Well Information:

Well ID BGWC-19
Well diameter 2 in
Well Total Depth 54.58 ft
Screen Length 10 ft
Depth to Water 17.78 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.3354883 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 5.04 in
Total Volume Pumped 3.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	13:45:03	240.03	19.86	6.64	642.15	1.36	18.20	0.21	57.70
Last 5	13:49:03	480.02	19.78	6.59	652.58	1.01	18.20	0.15	57.82
Last 5	13:53:03	720.02	19.63	6.57	655.73	0.96	18.20	0.13	57.60
Last 5	13:57:03	960.03	19.42	6.57	656.99	1.02	18.20	0.13	56.73
Last 5	14:01:03	1200.03	19.42	6.55	658.55	0.90	18.20	0.13	56.52
Variance 0			-0.15	-0.02	3.15			-0.02	-0.22
Variance 1			-0.21	-0.00	1.26			-0.00	-0.88
Variance 2			-0.01	-0.02	1.56			0.00	-0.21

Notes

Prepurged 2.5 liters

Grab Samples

BGWC-19
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-26 16:13:25

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 50 ft

Pump placement from TOC 44.73 ft

Well Information:

Well ID BGWC-20
Well diameter 2 in
Well Total Depth 49.73 ft
Screen Length 10 ft
Depth to Water 15.82 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3131711 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 68.16 in
Total Volume Pumped 56L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	15:54:46	2400.03	22.00	7.10	1586.63	0.98	21.07	0.25	-42.13
Last 5	15:58:46	2640.03	21.69	7.11	1579.20	0.80	21.37	0.26	-48.05
Last 5	16:02:46	2880.03	22.35	7.10	1592.58	0.94	21.44	0.26	-47.40
Last 5	16:06:46	3120.03	23.11	7.09	1590.27	0.99	21.49	0.28	-49.34
Last 5	16:10:46	3360.03	23.04	7.10	1589.17	0.92	21.50	0.33	-56.53
Variance 0			0.67	-0.01	13.38			0.00	0.65
Variance 1			0.75	-0.01	-2.31			0.02	-1.94
Variance 2			-0.06	0.02	-1.10			0.05	-7.20

Notes

Prepurged 1.75 liters

Grab Samples

BGWC-20
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-30 09:37:15

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 53 ft

Pump placement from TOC 47.99 ft

Well Information:

Well ID BGWC-21
Well diameter 2 in
Well Total Depth 52.99 ft
Screen Length 10 ft
Depth to Water 23.43 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 5.4 in
Total Volume Pumped 2.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	09:18:53	240.06	19.49	7.64	387.46	3.94	23.90	0.55	109.79
Last 5	09:22:53	480.02	19.55	7.66	390.81	3.01	23.88	0.37	92.99
Last 5	09:26:53	720.02	19.55	7.68	393.10	2.21	23.88	0.30	76.42
Last 5	09:30:53	960.02	19.50	7.70	396.62	1.88	23.88	0.26	62.37
Last 5	09:34:53	1200.03	19.52	7.70	399.15	1.90	23.88	0.26	51.18
Variance 0			0.00	0.03	2.28			-0.07	-16.57
Variance 1			-0.05	0.01	3.52			-0.04	-14.05
Variance 2			0.02	-0.00	2.54			0.00	-11.19

Notes

Prepurged 2 liters

Grab Samples

BGWC-21
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-27 10:02:31

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 43 ft

Pump placement from TOC 38.05 ft

Well Information:

Well ID BGWC-22
Well diameter 2 in
Well Total Depth 43.05 ft
Screen Length 10 ft
Depth to Water 27.49 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.2819272 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 4.8 in
Total Volume Pumped 2.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	09:40:17	480.02	19.77	6.85	3999.89	1.38	28.07	1.08	35.98
Last 5	09:44:17	720.02	19.81	6.83	4061.66	1.19	28.05	0.76	29.78
Last 5	09:48:17	960.02	19.74	6.81	4101.60	1.25	28.02	0.54	26.10
Last 5	09:52:17	1200.03	19.86	6.80	4128.37	1.18	28.02	0.40	23.56
Last 5	09:56:17	1440.03	19.89	6.79	4133.11	1.26	28.02	0.34	21.43
Variance 0			-0.07	-0.02	39.95			-0.22	-3.68
Variance 1			0.12	-0.02	26.77			-0.14	-2.54
Variance 2			0.03	-0.01	4.74			-0.06	-2.14

Notes

Prepurged 2 liters

Grab Samples

BGWC-22
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-27 11:40:56

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 51 ft

Pump placement from TOC 45.95 ft

Well Information:

Well ID BGWC-23
Well diameter 2 in
Well Total Depth 50.95 ft
Screen Length 10 ft
Depth to Water 31.47 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.3176346 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 27.4 in
Total Volume Pumped 3.64 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:22:15	720.03	21.68	7.06	3423.38	1.64	32.76	0.53	-27.49
Last 5	11:26:15	960.02	21.86	7.05	3504.74	1.49	32.76	0.51	-28.55
Last 5	11:30:15	1200.03	21.51	7.04	3549.52	1.32	32.79	0.39	-27.64
Last 5	11:34:15	1440.03	21.12	7.04	3574.29	1.36	32.94	0.33	-29.07
Last 5	11:38:15	1680.03	21.82	7.02	3562.14	1.45	32.92	0.36	-30.11
Variance 0			-0.35	-0.00	44.78			-0.12	0.91
Variance 1			-0.40	-0.00	24.77			-0.06	-1.42
Variance 2			0.71	-0.02	-12.15			0.03	-1.04

Notes

Prepurged 2 liters

Grab Samples

BGWC-23
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-30 10:41:12

Project Information:

Operator Name Audrey Crafton
Company Name Resolute Env
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 67 ft

Pump placement from TOC 61.11 ft

Well Information:

Well ID BGWC-24
Well diameter 2 in
Well Total Depth 66.11 ft
Screen Length 10 ft
Depth to Water 18.68 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.6540493 L
Calculated Sample Rate 240 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
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	10:21:50	1920.02	22.31	6.64	5907.00	0.30	23.28	0.17	104.41
Last 5	10:25:51	2160.97	22.44	6.63	5913.53	0.34	23.46	0.16	104.83
Last 5	10:29:51	2400.97	22.40	6.63	5949.99	0.20	23.62	0.15	104.99
Last 5	10:33:52	2641.97	22.54	6.63	5985.67	--	--	0.14	105.45
Last 5	10:37:52	2881.97	22.62	6.62	6051.41	--	--	0.13	105.56
Variance 0			-0.04	-0.00	36.46			-0.01	0.15
Variance 1			0.14	-0.01	35.68			-0.01	0.47
Variance 2			0.09	-0.01	65.74			-0.01	0.10

Notes

Prepurged 1.5L
Water level meter died/malfunctioning. Had to stop low flow to get a different one.

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-30 11:23:35

Project Information:

Operator Name Audrey Crafton
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 67 ft

Pump placement from TOC 61.11 ft

Well Information:

Well ID BGWC-24
Well diameter 2 in
Well Total Depth 66.11 ft
Screen Length 10 ft
Depth to Water 18.68 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.6540493 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 55.44 in
Total Volume Pumped 7.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:05:58	480.03	23.48	6.60	6405.99	0.16	22.70	0.24	108.68
Last 5	11:09:58	720.02	22.94	6.60	6633.58	0.16	22.90	0.24	108.49
Last 5	11:13:59	961.02	22.97	6.59	6686.77	0.17	23.06	0.23	108.48
Last 5	11:17:59	1201.02	22.96	6.59	6702.94	0.11	23.18	0.23	108.35
Last 5	11:21:59	1441.02	23.11	6.58	6743.08	0.18	23.30	0.23	108.39
Variance 0			0.03	-0.01	53.18			-0.01	-0.01
Variance 1			-0.01	-0.00	16.17			0.01	-0.13
Variance 2			0.15	-0.01	40.14			-0.01	0.04

Notes

Prepurged 6.5L. Had to stop first low flow because water level meter died and had to go get new one. Returning to finish now.

Grab Samples

BGWC-24
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-30 12:16:20

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 613229
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 58 ft

Pump placement from TOC 52.87 ft

Well Information:

Well ID BGWC-25
Well diameter 2 in
Well Total Depth 57.87 ft
Screen Length 10 ft
Depth to Water 19.00 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.3488785 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 61.08 in
Total Volume Pumped 5.28L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	11:56:59	1680.02	21.11	7.36	405.17	1.15	23.46	0.08	-130.44
Last 5	12:00:59	1920.03	21.46	7.36	403.41	1.14	23.67	0.08	-130.83
Last 5	12:04:59	2160.03	21.44	7.35	405.29	1.21	23.81	0.09	-129.51
Last 5	12:08:59	2400.02	21.81	7.35	404.07	1.16	23.98	0.10	-128.53
Last 5	12:12:59	2640.02	21.95	7.36	403.71	1.24	24.09	0.11	-127.69
Variance 0			-0.02	-0.01	1.88			0.01	1.32
Variance 1			0.37	0.00	-1.22			0.01	0.98
Variance 2			0.14	0.00	-0.35			0.01	0.84

Notes

Prepurged 2 liters

Grab Samples

BGWC-25
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-24 13:34:27

Project Information:

Operator Name Audrey Crafton
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 50 ft

Pump placement from TOC 44.7 ft

Well Information:

Well ID BGWC-31
Well diameter 2 in
Well Total Depth 49.7 ft
Screen Length 10 ft
Depth to Water 15.37 ft

Pumping Information:

Final Pumping Rate 115 mL/min
Total System Volume 0.4131711 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 3 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	13:17:02	720.02	20.75	7.30	672.55	4.15	15.52	0.83	-127.91
Last 5	13:21:02	960.02	20.57	7.29	672.66	3.21	15.51	0.61	-128.43
Last 5	13:25:02	1200.02	20.69	7.29	673.58	3.24	15.52	0.49	-128.76
Last 5	13:29:02	1440.02	20.70	7.29	673.95	2.93	15.52	0.41	-128.81
Last 5	13:33:02	1680.02	20.49	7.29	672.19	2.15	15.52	0.35	-127.29
Variance 0			0.12	-0.01	0.93			-0.12	-0.33
Variance 1			0.02	-0.00	0.37			-0.08	-0.06
Variance 2			-0.21	0.00	-1.76			-0.06	1.52

Notes

Prepurged 1L

Grab Samples

BGWC-31
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-26 13:47:17

Project Information:

Operator Name Audrey Crafton
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 52 ft

Pump placement from TOC 46.22 ft

Well Information:

Well ID BGWC-32
Well diameter 2 in
Well Total Depth 51.22 ft
Screen Length 10 ft
Depth to Water 35.07 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 0.422098 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 47.52 in
Total Volume Pumped 4.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	13:28:59	1920.02	20.70	7.34	1697.17	0.71	38.39	2.21	18.66
Last 5	13:32:59	2160.02	20.56	7.34	1735.04	0.70	38.57	2.25	21.08
Last 5	13:36:59	2400.02	20.59	7.33	1771.15	0.64	38.74	2.22	21.31
Last 5	13:41:00	2640.71	20.43	7.32	1793.21	0.47	38.90	2.17	21.45
Last 5	13:45:00	2880.71	20.32	7.31	1829.99	0.50	39.03	2.10	20.56
Variance 0			0.02	-0.01	36.11			-0.02	0.23
Variance 1			-0.15	-0.01	22.06			-0.05	0.14
Variance 2			-0.12	-0.01	36.78			-0.07	-0.88

Notes

Prepurged 1L

Grab Samples

BGWC-32
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-26 09:49:22

Project Information:

Operator Name Audrey Crafton
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

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

Pump placement from TOC 75.94 ft

Well Information:

Well ID BGWC-35D
Well diameter 2 in
Well Total Depth 80.94 ft
Screen Length 10 ft
Depth to Water 29.10 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.5515373 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 9 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
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	09:31:40	1440.02	19.41	7.01	2710.09	1.91	29.83	0.13	-141.99
Last 5	09:35:40	1680.02	19.53	7.03	2780.67	1.81	29.83	0.12	-128.37
Last 5	09:39:40	1920.02	19.50	7.06	2804.94	2.67	29.85	0.15	-117.44
Last 5	09:43:40	2160.09	19.86	7.08	2834.03	3.16	29.86	0.15	-108.10
Last 5	09:47:40	2400.09	19.99	7.09	2841.17	2.72	29.85	0.18	-101.39
Variance 0			-0.02	0.03	24.26			0.02	10.93
Variance 1			0.35	0.01	29.10			0.01	9.34
Variance 2			0.14	0.01	7.14			0.02	6.71

Notes

Prepurged 1L

Grab Samples

BGWC-35D
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-27 09:44:47

Project Information:

Operator Name Audrey Crafton
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Dedicated
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 60 ft

Pump placement from TOC 54.98 ft

Well Information:

Well ID BGWC-30
Well diameter 2 in
Well Total Depth 59.98 ft
Screen Length 10 ft
Depth to Water 33.98 ft

Pumping Information:

Final Pumping Rate 155 mL/min
Total System Volume 0.6228054 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0.12 in
Total Volume Pumped 3.1 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	09:26:08	240.03	23.37	7.14	894.40	1.54	33.98	1.67	108.23
Last 5	09:30:08	480.02	23.43	7.17	878.16	1.90	33.98	1.61	104.91
Last 5	09:34:08	720.02	23.55	7.18	858.32	2.12	33.99	1.53	104.23
Last 5	09:38:08	960.02	23.59	7.19	851.67	2.14	34.00	1.49	103.39
Last 5	09:42:08	1200.02	23.65	7.20	848.34	2.35	33.99	1.46	102.97
Variance 0			0.12	0.02	-19.84			-0.08	-0.68
Variance 1			0.04	0.01	-6.66			-0.04	-0.84
Variance 2			0.07	0.01	-3.33			-0.03	-0.42

Notes

Prepurged 1L

Grab Samples

BGWC-30
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-24 10:43:10

Project Information:

Operator Name Audrey Crafton
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 80 ft

Pump placement from TOC 74.75 ft

Well Information:

Well ID BGWC-34D
Well diameter 2 in
Well Total Depth 69.75 ft
Screen Length 10 ft
Depth to Water 16.06 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.5470738 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 131.4 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Last 5	10:23:43	5759.95	22.00	7.30	742.85	0.45	26.33	-0.00	-326.73
Last 5	10:27:55	6011.95	22.12	7.31	738.46	0.52	26.57	-0.01	-328.11
Last 5	10:31:55	6251.95	22.18	7.31	736.59	0.60	26.73	-0.01	-328.60
Last 5	10:35:55	6491.95	22.40	7.31	736.50	0.60	26.90	-0.01	-329.67
Last 5	10:40:06	6742.95	22.62	7.32	733.91	0.66	27.01	-0.01	-331.10
Variance 0			0.05	-0.00	-1.86			-0.00	-0.49
Variance 1			0.22	0.00	-0.09			0.00	-1.07
Variance 2			0.22	0.00	-2.59			-0.01	-1.43

Notes

Prepurged 1L

Grab Samples

BGWC-34D
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-09-27 11:59:14

Project Information:

Operator Name Audrey Crafton
Company Name Resolute
Project Name Ash Pond
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 553835
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 97 ft

Pump placement from TOC 91.35 ft

Well Information:

Well ID BGWC-36D
Well diameter 2 in
Well Total Depth 96.35 ft
Screen Length 10 ft
Depth to Water 33.92 ft

Pumping Information:

Final Pumping Rate 115 mL/min
Total System Volume 0.622952 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 0 in
Total Volume Pumped 5.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	11:41:43	1920.62	23.99	7.08	1606.92	5.99	33.92	0.89	126.49
Last 5	11:45:43	2160.62	23.97	7.09	1609.81	5.57	33.97	0.89	126.18
Last 5	11:49:43	2400.62	23.92	7.09	1609.03	4.57	33.91	0.90	126.15
Last 5	11:53:43	2640.62	23.88	7.08	1605.06	4.11	33.93	0.89	125.91
Last 5	11:57:43	2880.62	23.97	7.09	1609.43	3.62	33.92	0.90	125.06
Variance 0			-0.05	0.01	-0.78			0.01	-0.04
Variance 1			-0.04	-0.01	-3.98			-0.01	-0.23
Variance 2			0.09	0.01	4.38			0.00	-0.85

Notes

Prepurged 1L

Grab Samples

BGWC-36D
Metals, Inorganics, Radium

Product Name: Low-Flow System

Date: 2019-11-15 12:35:36

Project Information:

Operator Name Kevin Stephenson
Company Name Resolute Env
Project Name October 2019
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 541714
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED 100mL Bladder Pump
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length ft

Pump placement from TOC ft

Well Information:

Well ID BGWC-32
Well diameter 2 in
Well Total Depth 51.15 ft
Screen Length 10 ft
Depth to Water 34.86 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.19 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 56.4 in
Total Volume Pumped 5.76 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			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 1000%
Last 5	12:14:20	1920.30	16.47	7.22	2050.67	1.35	38.94	0.80	125.50
Last 5	12:18:27	2167.30	16.39	7.21	2097.90	1.20	39.12	0.75	117.85
Last 5	12:22:27	2407.30	16.31	7.20	2145.15	1.19	39.26	0.70	124.55
Last 5	12:26:27	2647.30	16.32	7.20	2200.27	1.13	39.43	0.65	126.41
Last 5	12:30:31	2891.30	16.36	7.19	2239.00	0.91	39.56	0.60	125.63
Variance 0			-0.08	-0.01	47.26			-0.05	6.71
Variance 1			0.01	-0.01	55.12			-0.05	1.86
Variance 2			0.04	-0.00	38.73			-0.05	-0.79

Notes

Pre-purged 2 liters.

Grab Samples

BGWC-32

Metals

BGWC-32

Inorganics

Report Created: 2019-12-13 11:00:01
 Site: Plant Bowen
 GPS:
 Log Created: 2019-12-13 10:58:16
 Number Readings: 12
 Battery Type: SmarTROLL[®], Ç Battery Pack
 Battery SN: 637616
 Device Type: SmarTROLL[®], Ç MP
 Device SN: 553835

Created	Baro (mba)	Temp (C)	RDO (mg/l)	RDO Sat (%)	pH (pH)	ORP (mV)	Act Cond (µS/cm)	Sp Cond (µS/cm)	Salinity (ppt)	Resist (Ohm-cm)	Density (g/cm ³)	TDS (ppt)	Depth (ft)	Pressure (psi)	Air Temp (C)
12/13/2019 10:58	994.7	11.75	9.3	88.5	7.13	179.9	2768.9	3753.8	2	360	1.001	2	-0.09	-0.04	7.8
12/13/2019 10:58	994.7	11.85	9.3	88.5	7.12	165.8	2768.9	3707	2	361	1.001	2	-0.09	-0.038	7.8
12/13/2019 10:58	994.8	12.12	8.75	83.7	7.12	160.4	2793.7	3717.7	2	358	1.001	2	-0.09	-0.037	7.9
12/13/2019 10:58	994.7	12.54	8.36	80.6	7.12	158.4	2762.5	3646.7	1.9	362	1.001	2	-0.08	-0.036	7.9
12/13/2019 10:58	994.7	12.85	8.1	78.6	7.12	152.2	2765.9	3617.8	1.9	362	1.001	2	-0.1	-0.043	7.9
12/13/2019 10:59	994.7	13.13	7.97	78	7.11	149.2	2785.2	3614	1.9	359	1.001	2	-0.07	-0.032	7.9
12/13/2019 10:59	994.8	13.4	7.9	77.8	7.11	146.9	2766.2	3565.4	1.9	362	1.001	2	-0.09	-0.038	7.9
12/13/2019 10:59	994.7	13.54	7.9	78	7.1	143.5	2772.9	3556.9	1.9	361	1.001	2	-0.07	-0.032	7.9
12/13/2019 10:59	994.6	13.74	7.87	78.1	7.1	141.6	2794.8	3569.8	1.9	358	1.001	2	-0.08	-0.033	7.9
12/13/2019 10:59	994.7	13.95	7.74	77	7.09	139.9	2775.6	3529.9	1.9	360	1.001	2	-0.08	-0.037	8
12/13/2019 10:59	994.6	14.13	7.66	76.6	7.08	137.6	2784.1	3525.1	1.9	359	1.001	2	-0.06	-0.025	8
12/13/2019 11:00	994.7	14.27	7.6	76.4	7.07	136	2806.7	3534.6	1.9	356	1.001	2	-0.07	-0.032	8

Product Name: Low-Flow System

Date: 2019-12-16 14:29:21

Project Information:

Operator Name Joe Booth
Company Name Resolute
Project Name Ash pond New we'll sample
Site Name Plant Bowen
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 513028
Turbidity Make/Model Lamotte2020me

Pump Information:

Pump Model/Type bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 62 ft

Pump placement from TOC 58.31 ft

Well Information:

Well ID BGWC-40
Well diameter .17 in
Well Total Depth 63.81 ft
Screen Length 10 ft
Depth to Water 26.06 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.5167322 L
Calculated Sample Rate 240 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 21.84 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
			+/- 1000%	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 1000%
Stabilization									
Last 5	14:10:53	8400.02	17.54	7.36	1371.22	8.04	26.36	8.53	47.37
Last 5	14:14:53	8640.02	17.53	7.36	1370.68	6.36	26.36	9.49	46.93
Last 5	14:18:53	8880.02	17.54	7.35	1371.96	4.94	26.36	8.44	46.46
Last 5	14:22:53	9120.02	17.52	7.34	1372.20	4.75	26.36	8.13	46.18
Last 5	14:26:53	9360.02	17.49	7.34	1372.45	4.55	26.36	8.17	46.05
Variance 0			0.00	-0.01	1.28			-1.05	-0.47
Variance 1			-0.01	-0.01	0.24			-0.31	-0.28
Variance 2			-0.03	-0.00	0.25			0.04	-0.13

Notes

Prepurged 2 liters

Grab Samples

BGWC-40
metals, TDS, F, SO4

APPENDIX F

Statistical Analyses

Detection Monitoring Program Statistical
Analysis Package
Plant Bowen Ash Pond 1 (AP-1) April
and September/October 2019 events
(AM 01 & AM 02)

Outlier Summary - Bowen AP-1

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/18/2019, 12:41 AM

BGWA-29 Total Dissolved Solids (mg/L)

2/14/2017

345 (o)

Table F-1
 Detection Monitoring Prediction Limit Comparison
 Plant Bowen, Bartow County, Georgia

Parameter	Well ID	2019 AM 01			2019 AM 02		
		Upper PL	Lower PL	Apr 1-5, 2019	Upper PL	Lower PL	Sep 23- Oct 4, 2019
Boron (mg/L)	BGWC-7	0.04	-	1.4	0.034	-	1.6
Boron (mg/L)	BGWC-8	0.04	-	0.046 J	0.034	-	0.060
Boron (mg/L)	BGWC-9	0.04	-	0.50	0.034	-	0.51
Boron (mg/L)	BGWC-10	0.04	-	0.51 J ⁽³⁾	0.034	-	0.49
Boron (mg/L)	BGWC-12	0.04	-	0.86 J ⁽³⁾	0.034	-	1.1
Boron (mg/L)	BGWC-14	0.04	-	0.79 J ⁽³⁾	0.034	-	0.88
Boron (mg/L)	BGWC-16	0.04	-	1.1	0.034	-	1.5
Boron (mg/L)	BGWC-17	0.04	-	0.95 J ⁽³⁾	0.034	-	2.5
Boron (mg/L)	BGWC-18	0.04	-	0.56 J ⁽³⁾	0.034	-	1.1
Boron (mg/L)	BGWC-19	0.04	-	0.51	0.034	-	0.96
Boron (mg/L)	BGWC-20	0.04	-	2.6	0.034	-	4.4
Boron (mg/L)	BGWC-21	0.04	-	0.12	0.034	-	0.040 J ⁽⁴⁾
Boron (mg/L)	BGWC-22	0.04	-	7.9	0.034	-	16.4
Boron (mg/L)	BGWC-23	0.04	-	6.5	0.034	-	12.0
Boron (mg/L)	BGWC-24	0.04	-	23.3	0.034	-	36.8
Boron (mg/L)	BGWC-25	0.04	-	0.02 J	0.034	-	0.038 J ⁽⁴⁾
Boron (mg/L)	BGWC-30	0.04	-	6.1 J ⁽³⁾	0.034	-	2.4
Calcium (mg/L)	BGWC-7	48.1	-	140	49.5	-	151
Calcium (mg/L)	BGWC-8	48.1	-	47.2	49.5	-	42.4
Calcium (mg/L)	BGWC-9	48.1	-	59.3	49.5	-	57.6
Calcium (mg/L)	BGWC-10	48.1	-	57.8	49.5	-	58.1
Calcium (mg/L)	BGWC-12	48.1	-	94.8	49.5	-	115
Calcium (mg/L)	BGWC-14	48.1	-	98	49.5	-	110
Calcium (mg/L)	BGWC-16	48.1	-	117	49.5	-	136
Calcium (mg/L)	BGWC-17	48.1	-	63.9	49.5	-	94.2
Calcium (mg/L)	BGWC-18	48.1	-	53.3	49.5	-	91.7
Calcium (mg/L)	BGWC-19	48.1	-	51.3	49.5	-	80.8
Calcium (mg/L)	BGWC-20	48.1	-	220	49.5	-	243
Calcium (mg/L)	BGWC-21	48.1	-	43.4	49.5	-	43.2
Calcium (mg/L)	BGWC-22	48.1	-	458	49.5	-	658
Calcium (mg/L)	BGWC-23	48.1	-	396	49.5	-	533
Calcium (mg/L)	BGWC-24	48.1	-	945	49.5	-	1050
Calcium (mg/L)	BGWC-25	48.1	-	54.8	49.5	-	47.8
Calcium (mg/L)	BGWC-30	48.1	-	181	49.5	-	103
Chloride (mg/L)	BGWC-7	4.37	-	9.4	4.60	-	8.0
Chloride (mg/L)	BGWC-8	4.37	-	1.8	4.60	-	1.5
Chloride (mg/L)	BGWC-9	4.37	-	13.4	4.60	-	13.2
Chloride (mg/L)	BGWC-10	4.37	-	24.1	4.60	-	25.1
Chloride (mg/L)	BGWC-12	4.37	-	24.1	4.60	-	23.6
Chloride (mg/L)	BGWC-14	4.37	-	33.7	4.60	-	31.9
Chloride (mg/L)	BGWC-16	4.37	-	20.3	4.60	-	28.7
Chloride (mg/L)	BGWC-17	4.37	-	18.7	4.60	-	47.1
Chloride (mg/L)	BGWC-18	4.37	-	4.5	4.60	-	60.5
Chloride (mg/L)	BGWC-19	4.37	-	9.7	4.60	-	26.0
Chloride (mg/L)	BGWC-20	4.37	-	144	4.60	-	128
Chloride (mg/L)	BGWC-21	4.37	-	5	4.60	-	4.7
Chloride (mg/L)	BGWC-22	4.37	-	856	4.60	-	996
Chloride (mg/L)	BGWC-23	4.37	-	679	4.60	-	918
Chloride (mg/L)	BGWC-24	4.37	-	1890	4.60	-	2040
Chloride (mg/L)	BGWC-25	4.37	-	3.8	4.60	-	5.2
Chloride (mg/L)	BGWC-30	4.37	-	333	4.60	-	143

Table F-1
 Detection Monitoring Prediction Limit Comparison
 Plant Bowen, Bartow County, Georgia

Parameter	Well ID	2019 AM 01			2019 AM 02		
		Upper PL	Lower PL	Apr 1-5, 2019	Upper PL	Lower PL	Sep 23- Oct 4, 2019
Fluoride (mg/L)	BGWC-7	0.213	-	0.22 J	0.300	-	0.12 J
Fluoride (mg/L)	BGWC-8	0.213	-	ND	0.300	-	ND
Fluoride (mg/L)	BGWC-9	0.213	-	0.33	0.300	-	0.096 J
Fluoride (mg/L)	BGWC-10	0.213	-	0.044 J	0.300	-	0.075 J
Fluoride (mg/L)	BGWC-12	0.213	-	0.065 J	0.300	-	0.13 J
Fluoride (mg/L)	BGWC-14	0.213	-	0.44	0.300	-	0.11 J
Fluoride (mg/L)	BGWC-16	0.213	-	0.23 J	0.300	-	ND
Fluoride (mg/L)	BGWC-17	0.213	-	0.14 J	0.300	-	0.071 J
Fluoride (mg/L)	BGWC-18	0.213	-	0.044 J	0.300	-	0.052 J
Fluoride (mg/L)	BGWC-19	0.213	-	0.051 J	0.300	-	ND
Fluoride (mg/L)	BGWC-20	0.213	-	0.072 J	0.300	-	ND
Fluoride (mg/L)	BGWC-21	0.213	-	0.032 J	0.300	-	0.066 J
Fluoride (mg/L)	BGWC-22	0.213	-	0.23 J	0.300	-	1.0
Fluoride (mg/L)	BGWC-23	0.213	-	0.1 J	0.300	-	0.54
Fluoride (mg/L)	BGWC-24	0.213	-	3	0.300	-	1.2
Fluoride (mg/L)	BGWC-25	0.213	-	ND	0.300	-	0.065 J
Fluoride (mg/L)	BGWC-30	0.213	-	0.68	0.300	-	0.13 J
pH (s.u.)	BGWC-7	8.2	7.5	7.0	8.2	7.5	6.9
pH (s.u.)	BGWC-8	8.2	7.5	7.6	8.2	7.5	7.5
pH (s.u.)	BGWC-9	8.2	7.5	7.0	8.2	7.5	7.1
pH (s.u.)	BGWC-10	8.2	7.5	7.5	8.2	7.5	7.4
pH (s.u.)	BGWC-12	8.2	7.5	7.2	8.2	7.5	7.1
pH (s.u.)	BGWC-14	8.2	7.5	7.3	8.2	7.5	7.7
pH (s.u.)	BGWC-16	8.2	7.5	6.8	8.2	7.5	6.7
pH (s.u.)	BGWC-17	8.2	7.5	7.2	8.2	7.5	7.3
pH (s.u.)	BGWC-18	8.2	7.5	6.5	8.2	7.5	7.0
pH (s.u.)	BGWC-19	8.2	7.5	6.6	8.2	7.5	6.6
pH (s.u.)	BGWC-20	8.2	7.5	7.1	8.2	7.5	7.1
pH (s.u.)	BGWC-21	8.2	7.5	7.7	8.2	7.5	7.7
pH (s.u.)	BGWC-22	8.2	7.5	6.8	8.2	7.5	6.8
pH (s.u.)	BGWC-23	8.2	7.5	7.0	8.2	7.5	7.0
pH (s.u.)	BGWC-24	8.2	7.5	6.6	8.2	7.5	6.6
pH (s.u.)	BGWC-25	8.2	7.5	7.4	8.2	7.5	7.4
pH (s.u.)	BGWC-30	8.2	7.5	7.2	8.2	7.5	7.2
Sulfate (mg/L)	BGWC-7	10.4	-	334	11.1	-	266
Sulfate (mg/L)	BGWC-8	10.4	-	30.5	11.1	-	36.5
Sulfate (mg/L)	BGWC-9	10.4	-	81.4	11.1	-	89.0
Sulfate (mg/L)	BGWC-10	10.4	-	105	11.1	-	93.7
Sulfate (mg/L)	BGWC-12	10.4	-	239	11.1	-	205
Sulfate (mg/L)	BGWC-14	10.4	-	255	11.1	-	181
Sulfate (mg/L)	BGWC-16	10.4	-	272	11.1	-	288
Sulfate (mg/L)	BGWC-17	10.4	-	86.9	11.1	-	219
Sulfate (mg/L)	BGWC-18	10.4	-	70.1	11.1	-	114
Sulfate (mg/L)	BGWC-19	10.4	-	90.6	11.1	-	130
Sulfate (mg/L)	BGWC-20	10.4	-	593	11.1	-	498
Sulfate (mg/L)	BGWC-21	10.4	-	61.9	11.1	-	54.5
Sulfate (mg/L)	BGWC-22	10.4	-	720	11.1	-	905
Sulfate (mg/L)	BGWC-23	10.4	-	603	11.1	-	721
Sulfate (mg/L)	BGWC-24	10.4	-	648	11.1	-	758
Sulfate (mg/L)	BGWC-25	10.4	-	11.4	11.1	-	10.7
Sulfate (mg/L)	BGWC-30	10.4	-	153	11.1	-	51.7

Table F-1
 Detection Monitoring Prediction Limit Comparison
 Plant Bowen, Bartow County, Georgia

Parameter	Well ID	2019 AM 01			2019 AM 02		
		Upper PL	Lower PL	Apr 1-5, 2019	Upper PL	Lower PL	Sep 23- Oct 4, 2019
TDS (mg/L)	BGWC-7	301	-	728	246	-	733
TDS (mg/L)	BGWC-8	301	-	191	246	-	193
TDS (mg/L)	BGWC-9	301	-	326	246	-	325
TDS (mg/L)	BGWC-10	301	-	355	246	-	388
TDS (mg/L)	BGWC-12	301	-	191	246	-	690
TDS (mg/L)	BGWC-14	301	-	617	246	-	637
TDS (mg/L)	BGWC-16	301	-	604	246	-	688
TDS (mg/L)	BGWC-17	301	-	321	246	-	550
TDS (mg/L)	BGWC-18	301	-	258	246	-	470
TDS (mg/L)	BGWC-19	301	-	259	246	-	428
TDS (mg/L)	BGWC-20	301	-	1090	246	-	1210
TDS (mg/L)	BGWC-21	301	-	244	246	-	256
TDS (mg/L)	BGWC-22	301	-	2180	246	-	3260
TDS (mg/L)	BGWC-23	301	-	1990	246	-	2540
TDS (mg/L)	BGWC-24	301	-	13	246	-	4430
TDS (mg/L)	BGWC-25	301	-	196	246	-	220
TDS (mg/L)	BGWC-30	301	-	773	246	-	629

Notes:

- = Not applicable

J = Indicates that analyte was estimated and detected between the laboratory Method Detection Limit (MDL) and Reporting Limit (RL).

mg/L = milligrams per liter

ND = Indicates the parameter was not detected above the laboratory MDL.

PL = Prediction Limit

s.u. = standard unit

TDS = Total Dissolved Solids

(1) Shaded values indicate an exceedance of the statistically derived PL.

(2) The pH value presented was recorded at the time of sample collection in the field. This is the only parameter in which the field result is compared to both the upper and lower PL.

(3) Value J-flagged by the laboratory as estimated with an elevated RL due to an elevated Dilution Factor. The concentration reported for the April 2019 event is consistent with historical data and therefore deemed an exceedance in spite of the assigned J-flag.

(4) Value J-flagged by the laboratory as estimated. The concentration reported for the September 2019 event is consistent with historical data and therefore deemed an exceedance in spite of the assigned J-flag.

Prediction Limit (AM 01) - Significant Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/18/2019, 1:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BGWC-16	0.04	n/a	4/2/2019	1.1	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-19	0.04	n/a	4/3/2019	0.51	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-20	0.04	n/a	4/3/2019	2.6	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-21	0.04	n/a	4/3/2019	0.12	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-22	0.04	n/a	4/3/2019	7.9	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-23	0.04	n/a	4/3/2019	6.5	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-24	0.04	n/a	4/3/2019	23.3	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-7	0.04	n/a	4/2/2019	1.4	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-9	0.04	n/a	4/1/2019	0.5	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Calcium (mg/L)	BGWC-10	48.1	n/a	4/2/2019	57.8	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-12	48.1	n/a	4/1/2019	94.8	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-14	48.1	n/a	4/4/2019	98	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-16	48.1	n/a	4/2/2019	117	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-17	48.1	n/a	4/2/2019	63.9	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-18	48.1	n/a	4/2/2019	53.3	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-19	48.1	n/a	4/3/2019	51.3	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-20	48.1	n/a	4/3/2019	220	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-22	48.1	n/a	4/3/2019	458	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-23	48.1	n/a	4/3/2019	396	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-24	48.1	n/a	4/3/2019	945	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-25	48.1	n/a	4/4/2019	54.8	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-30	48.1	n/a	4/2/2019	181	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-7	48.1	n/a	4/2/2019	140	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-9	48.1	n/a	4/1/2019	59.3	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-10	4.365	n/a	4/2/2019	24.1	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-12	4.365	n/a	4/1/2019	24.1	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-14	4.365	n/a	4/4/2019	33.7	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-16	4.365	n/a	4/2/2019	20.3	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-17	4.365	n/a	4/2/2019	18.7	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-18	4.365	n/a	4/2/2019	4.5	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-19	4.365	n/a	4/3/2019	9.7	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-20	4.365	n/a	4/3/2019	144	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-21	4.365	n/a	4/3/2019	5	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-22	4.365	n/a	4/3/2019	856	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-23	4.365	n/a	4/3/2019	679	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-24	4.365	n/a	4/3/2019	1890	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-30	4.365	n/a	4/2/2019	333	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-7	4.365	n/a	4/2/2019	9.4	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-9	4.365	n/a	4/1/2019	13.4	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-14	0.2128	n/a	4/4/2019	0.44	Yes	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-24	0.2128	n/a	4/3/2019	3	Yes	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-30	0.2128	n/a	4/2/2019	0.68	Yes	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-9	0.2128	n/a	4/1/2019	0.33	Yes	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
pH (s.u.)	BGWC-12	8.215	7.485	4/1/2019	7.23	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-14	8.215	7.485	4/2/2019	7.33	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-16	8.215	7.485	4/2/2019	6.75	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-17	8.215	7.485	4/2/2019	7.22	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-18	8.215	7.485	4/2/2019	6.48	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-19	8.215	7.485	4/3/2019	6.58	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-20	8.215	7.485	4/3/2019	7.14	Yes	28	0	No	0.0002213	Param Inter 1 of 2

Prediction Limit (AM 01) - Significant Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/18/2019, 1:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (s.u.)	BGWC-22	8.215	7.485	4/3/2019	6.77	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-23	8.215	7.485	4/3/2019	7	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-24	8.215	7.485	4/3/2019	6.57	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-25	8.215	7.485	4/4/2019	7.38	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-30	8.215	7.485	4/2/2019	7.22	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-7	8.215	7.485	4/1/2019	6.99	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-9	8.215	7.485	4/1/2019	7.03	Yes	28	0	No	0.0002213	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-10	10.35	n/a	4/2/2019	105	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-12	10.35	n/a	4/1/2019	239	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-14	10.35	n/a	4/4/2019	255	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-16	10.35	n/a	4/2/2019	272	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-17	10.35	n/a	4/2/2019	86.9	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-18	10.35	n/a	4/2/2019	70.1	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-19	10.35	n/a	4/3/2019	90.6	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-20	10.35	n/a	4/3/2019	593	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-21	10.35	n/a	4/3/2019	61.9	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-22	10.35	n/a	4/3/2019	720	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-23	10.35	n/a	4/3/2019	603	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-24	10.35	n/a	4/3/2019	648	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-25	10.35	n/a	4/4/2019	11.4	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-30	10.35	n/a	4/2/2019	153	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-7	10.35	n/a	4/2/2019	334	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-8	10.35	n/a	4/1/2019	30.5	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-9	10.35	n/a	4/1/2019	81.4	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-10	301.1	n/a	4/2/2019	355	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-14	301.1	n/a	4/4/2019	617	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-16	301.1	n/a	4/2/2019	604	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-17	301.1	n/a	4/2/2019	321	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-20	301.1	n/a	4/3/2019	1090	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-22	301.1	n/a	4/3/2019	2180	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-23	301.1	n/a	4/3/2019	1990	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-30	301.1	n/a	4/2/2019	773	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-7	301.1	n/a	4/2/2019	728	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-9	301.1	n/a	4/1/2019	326	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2

Prediction Limit (AM01) - All Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/18/2019, 1:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BGWC-10	0.04	n/a	4/2/2019	0.51	No	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-12	0.04	n/a	4/1/2019	0.86	No	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-14	0.04	n/a	4/4/2019	0.79	No	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-16	0.04	n/a	4/2/2019	1.1	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-17	0.04	n/a	4/2/2019	0.95	No	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-18	0.04	n/a	4/2/2019	0.56	No	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-19	0.04	n/a	4/3/2019	0.51	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-20	0.04	n/a	4/3/2019	2.6	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-21	0.04	n/a	4/3/2019	0.12	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-22	0.04	n/a	4/3/2019	7.9	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-23	0.04	n/a	4/3/2019	6.5	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-24	0.04	n/a	4/3/2019	23.3	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-25	0.04	n/a	4/4/2019	0.02	No	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-30	0.04	n/a	4/2/2019	6.1	No	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-7	0.04	n/a	4/2/2019	1.4	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-8	0.04	n/a	4/1/2019	0.046	No	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-9	0.04	n/a	4/1/2019	0.5	Yes	24	37.5	n/a	0.002623	NP Inter (normality) 1 of 2
Calcium (mg/L)	BGWC-10	48.1	n/a	4/2/2019	57.8	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-12	48.1	n/a	4/1/2019	94.8	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-14	48.1	n/a	4/4/2019	98	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-16	48.1	n/a	4/2/2019	117	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-17	48.1	n/a	4/2/2019	63.9	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-18	48.1	n/a	4/2/2019	53.3	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-19	48.1	n/a	4/3/2019	51.3	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-20	48.1	n/a	4/3/2019	220	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-21	48.1	n/a	4/3/2019	43.4	No	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-22	48.1	n/a	4/3/2019	458	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-23	48.1	n/a	4/3/2019	396	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-24	48.1	n/a	4/3/2019	945	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-25	48.1	n/a	4/4/2019	54.8	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-30	48.1	n/a	4/2/2019	181	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-7	48.1	n/a	4/2/2019	140	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-8	48.1	n/a	4/1/2019	47.2	No	24	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-9	48.1	n/a	4/1/2019	59.3	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-10	4.365	n/a	4/2/2019	24.1	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-12	4.365	n/a	4/1/2019	24.1	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-14	4.365	n/a	4/4/2019	33.7	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-16	4.365	n/a	4/2/2019	20.3	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-17	4.365	n/a	4/2/2019	18.7	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-18	4.365	n/a	4/2/2019	4.5	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-19	4.365	n/a	4/3/2019	9.7	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-20	4.365	n/a	4/3/2019	144	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-21	4.365	n/a	4/3/2019	5	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-22	4.365	n/a	4/3/2019	856	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-23	4.365	n/a	4/3/2019	679	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-24	4.365	n/a	4/3/2019	1890	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-25	4.365	n/a	4/4/2019	3.8	No	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-30	4.365	n/a	4/2/2019	333	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-7	4.365	n/a	4/2/2019	9.4	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-8	4.365	n/a	4/1/2019	1.8	No	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2

Prediction Limit (AM01) - All Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/18/2019, 1:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	BGWC-9	4.365	n/a	4/1/2019	13.4	Yes	24	0	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-10	0.2128	n/a	4/2/2019	0.044	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-12	0.2128	n/a	4/1/2019	0.065	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-14	0.2128	n/a	4/4/2019	0.44	Yes	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-16	0.2128	n/a	4/2/2019	0.23	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-17	0.2128	n/a	4/2/2019	0.14	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-18	0.2128	n/a	4/2/2019	0.044	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-19	0.2128	n/a	4/3/2019	0.051	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-20	0.2128	n/a	4/3/2019	0.072	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-21	0.2128	n/a	4/3/2019	0.032	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-22	0.2128	n/a	4/3/2019	0.23	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-23	0.2128	n/a	4/3/2019	0.1	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-24	0.2128	n/a	4/3/2019	3	Yes	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-25	0.2128	n/a	4/4/2019	0.3ND	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-30	0.2128	n/a	4/2/2019	0.68	Yes	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-7	0.2128	n/a	4/2/2019	0.22	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-8	0.2128	n/a	4/1/2019	0.3ND	No	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-9	0.2128	n/a	4/1/2019	0.33	Yes	28	28.57	x^(1/3)	0.0004426	Param Inter 1 of 2
pH (s.u.)	BGWC-10	8.215	7.485	4/2/2019	7.54	No	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-12	8.215	7.485	4/1/2019	7.23	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-14	8.215	7.485	4/2/2019	7.33	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-16	8.215	7.485	4/2/2019	6.75	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-17	8.215	7.485	4/2/2019	7.22	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-18	8.215	7.485	4/2/2019	6.48	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-19	8.215	7.485	4/3/2019	6.58	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-20	8.215	7.485	4/3/2019	7.14	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-21	8.215	7.485	4/3/2019	7.69	No	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-22	8.215	7.485	4/3/2019	6.77	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-23	8.215	7.485	4/3/2019	7	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-24	8.215	7.485	4/3/2019	6.57	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-25	8.215	7.485	4/4/2019	7.38	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-30	8.215	7.485	4/2/2019	7.22	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-7	8.215	7.485	4/1/2019	6.99	Yes	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-8	8.215	7.485	4/1/2019	7.57	No	28	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-9	8.215	7.485	4/1/2019	7.03	Yes	28	0	No	0.0002213	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-10	10.35	n/a	4/2/2019	105	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-12	10.35	n/a	4/1/2019	239	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-14	10.35	n/a	4/4/2019	255	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-16	10.35	n/a	4/2/2019	272	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-17	10.35	n/a	4/2/2019	86.9	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-18	10.35	n/a	4/2/2019	70.1	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-19	10.35	n/a	4/3/2019	90.6	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-20	10.35	n/a	4/3/2019	593	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-21	10.35	n/a	4/3/2019	61.9	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-22	10.35	n/a	4/3/2019	720	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-23	10.35	n/a	4/3/2019	603	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-24	10.35	n/a	4/3/2019	648	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-25	10.35	n/a	4/4/2019	11.4	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-30	10.35	n/a	4/2/2019	153	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-7	10.35	n/a	4/2/2019	334	Yes	24	0	No	0.0004426	Param Inter 1 of 2

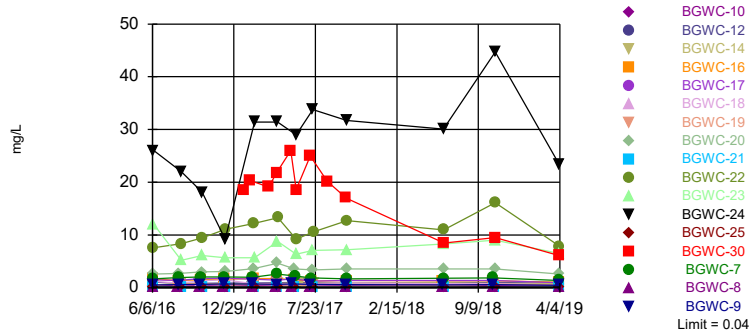
Prediction Limit (AM 01) - All Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/18/2019, 1:55 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	BGWC-8	10.35	n/a	4/1/2019	30.5	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-9	10.35	n/a	4/1/2019	81.4	Yes	24	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-10	301.1	n/a	4/2/2019	355	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-12	301.1	n/a	4/1/2019	191	No	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-14	301.1	n/a	4/4/2019	617	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-16	301.1	n/a	4/2/2019	604	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-17	301.1	n/a	4/2/2019	321	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-18	301.1	n/a	4/2/2019	258	No	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-19	301.1	n/a	4/3/2019	259	No	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-20	301.1	n/a	4/3/2019	1090	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-21	301.1	n/a	4/3/2019	244	No	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-22	301.1	n/a	4/3/2019	2180	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-23	301.1	n/a	4/3/2019	1990	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-24	301.1	n/a	4/3/2019	13	No	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-25	301.1	n/a	4/4/2019	196	No	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-30	301.1	n/a	4/2/2019	773	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-7	301.1	n/a	4/2/2019	728	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-8	301.1	n/a	4/1/2019	191	No	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-9	301.1	n/a	4/1/2019	326	Yes	24	0	sqrt(x)	0.0004426	Param Inter 1 of 2

Exceeds Limit: BGWC-16, BGWC-19, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-24, BGWC-7, BGWC-9

Prediction Limit
Interwell Non-parametric

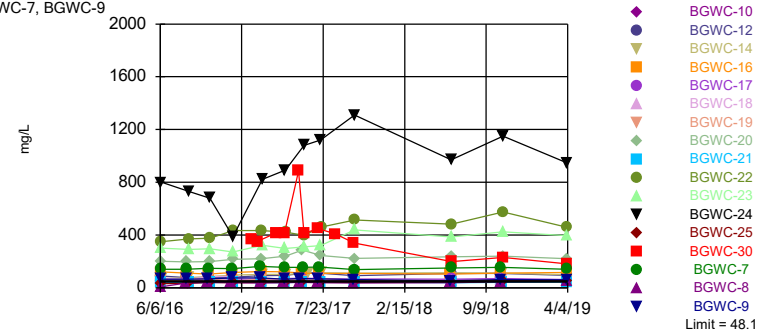


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 24 background values. 37.5% NDs. Annual per-constituent alpha = 0.08543. Individual comparison alpha = 0.002623 (1 of 2). Comparing 17 points to limit.

Constituent: Boron Analysis Run 7/18/2019 1:51 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-22, BGWC-23, BGWC-24, BGWC-25, BGWC-30, BGWC-7, BGWC-9

Prediction Limit
Interwell Parametric

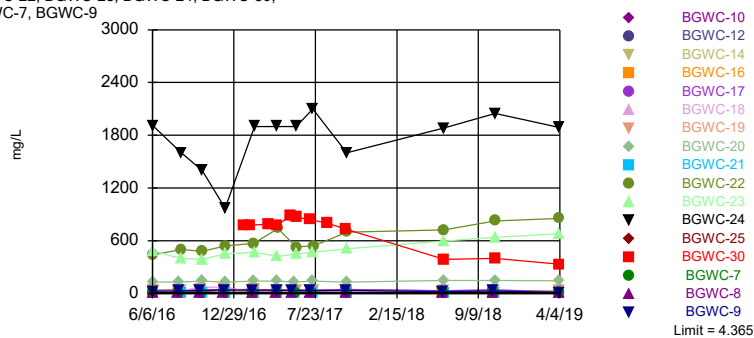


Background Data Summary: Mean=27.08, Std. Dev.=8.934, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.928, critical = 0.884. Kappa = 2.353 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Calcium Analysis Run 7/18/2019 1:52 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-24, BGWC-30, BGWC-7, BGWC-9

Prediction Limit
Interwell Parametric

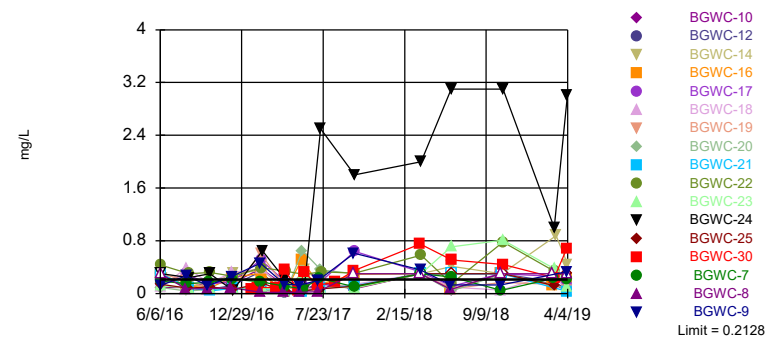


Background Data Summary (based on cube root transformation): Mean=1.3, Std. Dev.=0.1421, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8855, critical = 0.884. Kappa = 2.353 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Chloride Analysis Run 7/18/2019 1:52 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Exceeds Limit: BGWC-14, BGWC-24, BGWC-30, BGWC-9

Prediction Limit
Interwell Parametric

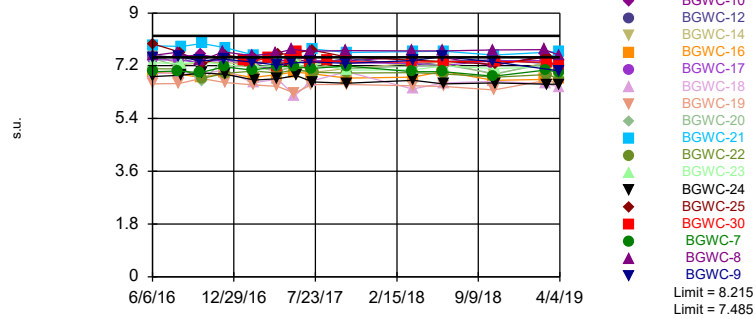


Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=0.3684, Std. Dev.=0.09934, n=28, 28.57% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8998, critical = 0.896. Kappa = 2.302 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Fluoride Analysis Run 7/18/2019 1:52 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Exceeds Limits: BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-23, BGWC-24, BGWC-25, BGWC-30, BGWC-7, BGWC-9

Prediction Limit
Interwell Parametric

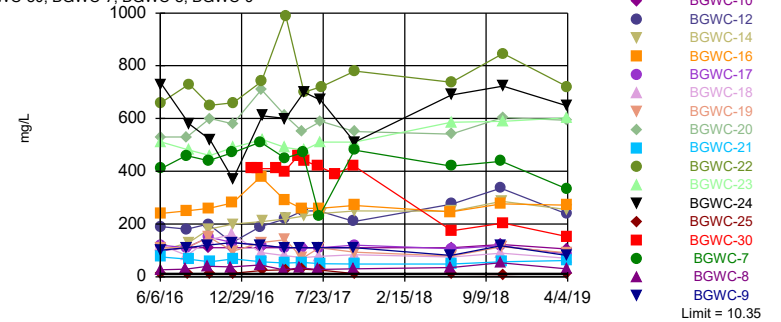


Background Data Summary: Mean=7.85, Std. Dev.=0.1584, n=28. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9533, critical = 0.896. Kappa = 2.302 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0002213. Comparing 17 points to limit.

Constituent: pH Analysis Run 7/18/2019 1:53 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-24, BGWC-25, BGWC-30, BGWC-7, BGWC-8, BGWC-9

Prediction Limit
Interwell Parametric

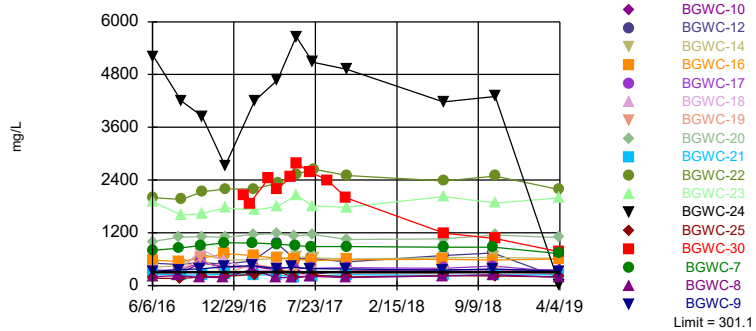


Background Data Summary: Mean=6.075, Std. Dev.=1.818, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9602, critical = 0.884. Kappa = 2.353 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Sulfate Analysis Run 7/18/2019 1:53 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-14, BGWC-16, BGWC-17, BGWC-20, BGWC-22, BGWC-23, BGWC-30, BGWC-7, BGWC-9

Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=12.47, Std. Dev.=2.076, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9238, critical = 0.884. Kappa = 2.353 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Total Dissolved Solids Analysis Run 7/18/2019 1:53 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Trend Test (AM 01) - Significant Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/24/2019, 11:22 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)	BGWA-2 (bg)	-0.009846	-41	-30	Yes	12	16.67	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-14	0.08453	40	34	Yes	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-16	-0.1728	-31	-30	Yes	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-17	-0.179	-31	-30	Yes	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-21	-0.04053	-39	-30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-10	3.17	41	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-12	13.72	41	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-14	18.79	50	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-22	74.47	45	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-23	51.16	40	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-24	194.4	36	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-25	6.718	53	30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-10	2.431	47	30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-12	-6.079	-57	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-16	-9.247	-41	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-18	-15.49	-42	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-19	-6.482	-36	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-21	-1.653	-48	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-22	146.8	49	30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-23	100.7	42	30	Yes	12	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-14	0.09584	38	37	Yes	14	14.29	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-24	1.052	49	37	Yes	14	7.143	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-30	0.2226	50	37	Yes	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-18	-0.1587	-41	-37	Yes	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-22	-0.07892	-44	-37	Yes	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-23	-0.08632	-48	-37	Yes	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-24	-0.124	-64	-37	Yes	14	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-12	47.27	40	30	Yes	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-14	62.8	62	30	Yes	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-23	41.83	37	30	Yes	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-22	236.9	31	30	Yes	12	0	n/a	n/a	0.05	NP

Trend Test (AM 01) - All Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/24/2019, 11:22 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)	BGWA-2 (bg)	-0.009846	-41	-30	Yes	12	16.67	n/a	n/a	0.05	NP
Boron (mg/L)	BGWA-29 (bg)	0	-13	-30	No	12	58.33	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-10	0.002543	3	30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-12	0.03539	9	30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-14	0.08453	40	34	Yes	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-16	-0.1728	-31	-30	Yes	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-17	-0.179	-31	-30	Yes	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-18	-0.1818	-28	-30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-19	-0.03974	-9	-30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-20	0.3508	20	30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-21	-0.04053	-39	-30	Yes	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-22	1.877	22	30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-23	1.13	21	30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-24	6.179	23	30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-30	-6.519	-29	-30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-7	-0.1074	-16	-30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-8	-0.006228	-10	-30	No	12	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-9	-0.03674	-16	-30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWA-2 (bg)	1.136	14	30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWA-29 (bg)	-0.142	-3	-30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-10	3.17	41	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-12	13.72	41	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-14	18.79	50	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-16	-1.94	-10	-30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-17	0.4407	4	30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-18	-6.655	-22	-30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-19	-1.971	-8	-30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-20	17.08	30	30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-22	74.47	45	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-23	51.16	40	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-24	194.4	36	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-25	6.718	53	30	Yes	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-30	-108.7	-30	-30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-7	3.369	7	30	No	12	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-9	-3.136	-25	-30	No	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWA-2 (bg)	0.08469	3	30	No	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWA-29 (bg)	-0.1988	-27	-30	No	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-10	2.431	47	30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-12	-6.079	-57	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-14	-0.7033	-15	-30	No	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-16	-9.247	-41	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-17	0.8294	4	30	No	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-18	-15.49	-42	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-19	-6.482	-36	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-20	5.133	28	30	No	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-21	-1.653	-48	-30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-22	146.8	49	30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-23	100.7	42	30	Yes	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-24	94.63	13	30	No	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-30	-224.9	-27	-30	No	12	0	n/a	n/a	0.05	NP

Trend Test (AM 01) - All Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/24/2019, 11:22 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>
Chloride (mg/L)	BGWC-7	0	-6	-30	No	12	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-9	-4.318	-23	-30	No	12	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWA-2 (bg)	-0.002173	-8	-37	No	14	14.29	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWA-29 (bg)	0.09637	31	37	No	14	42.86	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-14	0.09584	38	37	Yes	14	14.29	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-16	0	0	37	No	14	21.43	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-22	-0.01254	-4	-37	No	14	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-24	1.052	49	37	Yes	14	7.143	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-30	0.2226	50	37	Yes	14	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-7	0.01659	9	37	No	14	7.143	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-9	0.008123	12	34	No	13	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWA-2 (bg)	0.02355	16	37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWA-29 (bg)	0.01606	5	37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-12	-0.06775	-33	-37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-14	-0.09707	-21	-53	No	18	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-16	-0.06815	-31	-37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-17	-0.02967	-25	-37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-18	-0.1587	-41	-37	Yes	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-19	-0.03333	-20	-37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-20	-0.01413	-2	-37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-22	-0.07892	-44	-37	Yes	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-23	-0.08632	-48	-37	Yes	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-24	-0.124	-64	-37	Yes	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-25	-0.1229	-36	-37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-30	-0.03523	-30	-37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-7	-0.009838	-8	-37	No	14	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-9	-0.08012	-24	-34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWA-2 (bg)	1.082	19	30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWA-29 (bg)	-0.2475	-3	-30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-10	0	10	30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-12	47.27	40	30	Yes	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-14	62.8	62	30	Yes	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-16	6.752	13	30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-17	-8.913	-29	-30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-18	-11.39	-30	-30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-19	-12.48	-19	-30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-20	5.797	10	30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-21	-7.82	-27	-30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-22	47.47	24	30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-23	41.83	37	30	Yes	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-24	35.9	12	30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-25	0	2	30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-30	-117.7	-26	-30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-7	-13.53	-9	-30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-8	1.69	14	30	No	12	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-9	-4.198	-15	-30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWA-2 (bg)	8.873	12	30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWA-29 (bg)	2.7	2	27	No	11	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-10	1.534	1	30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-14	37.65	26	30	No	12	0	n/a	n/a	0.05	NP

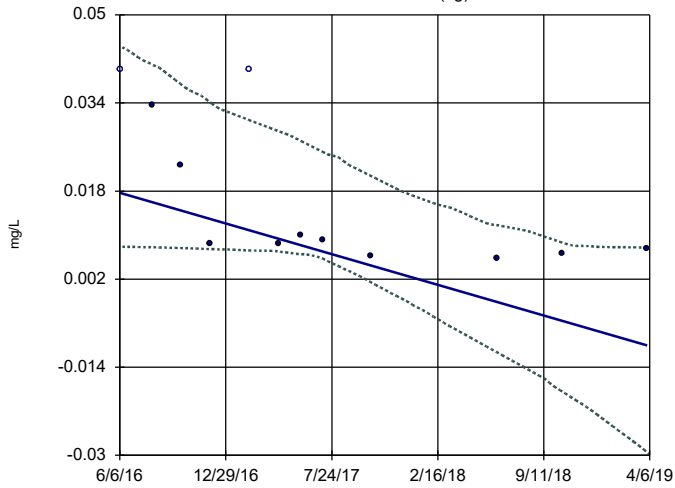
Trend Test (AM 01) - All Results

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/24/2019, 11:22 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>
Total Dissolved Solids (mg/L)	BGWC-16	-8.208	-6	-30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-17	-9.503	-3	-30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-20	17.29	6	30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-22	236.9	31	30	Yes	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-23	111.6	30	30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-30	-606.5	-22	-30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-7	-24.68	-17	-30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-9	-7.204	-7	-30	No	12	0	n/a	n/a	0.05	NP

Sen's Slope and 95% Confidence Band

BGWA-2 (bg)

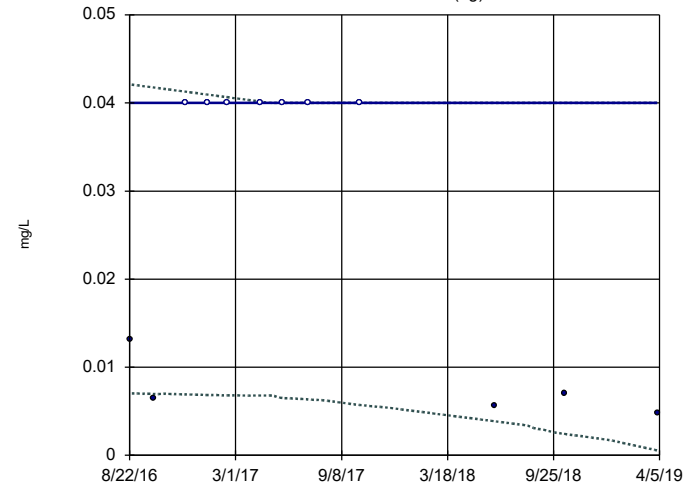


n = 12
 Slope = -0.009846
 units per year.
 Mann-Kendall
 statistic = -41
 critical = -30
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-29 (bg)

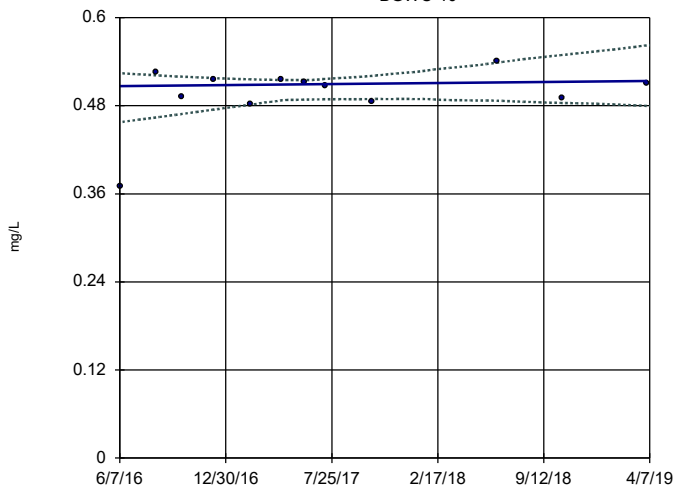


n = 12
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -13
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-10

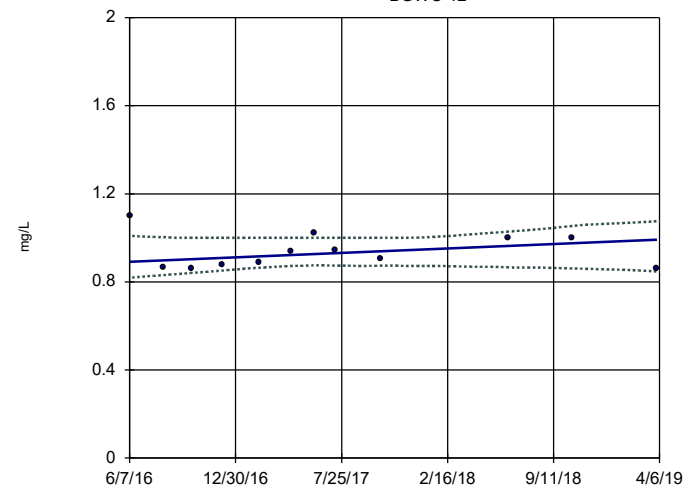


n = 12
 Slope = 0.002543
 units per year.
 Mann-Kendall
 statistic = 3
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-12

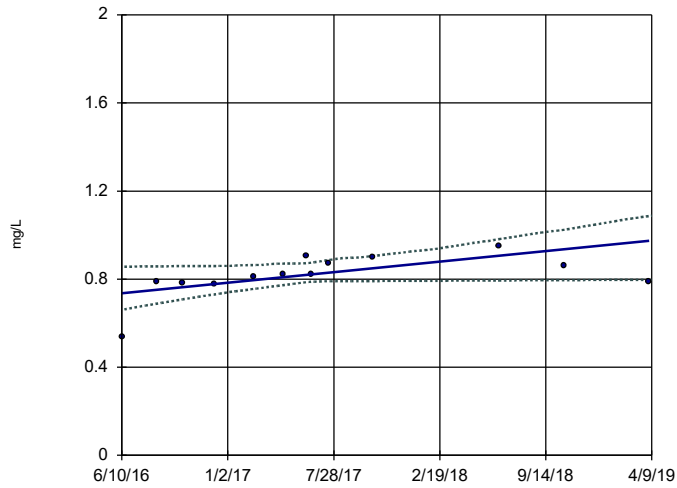


n = 12
 Slope = 0.03539
 units per year.
 Mann-Kendall
 statistic = 9
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

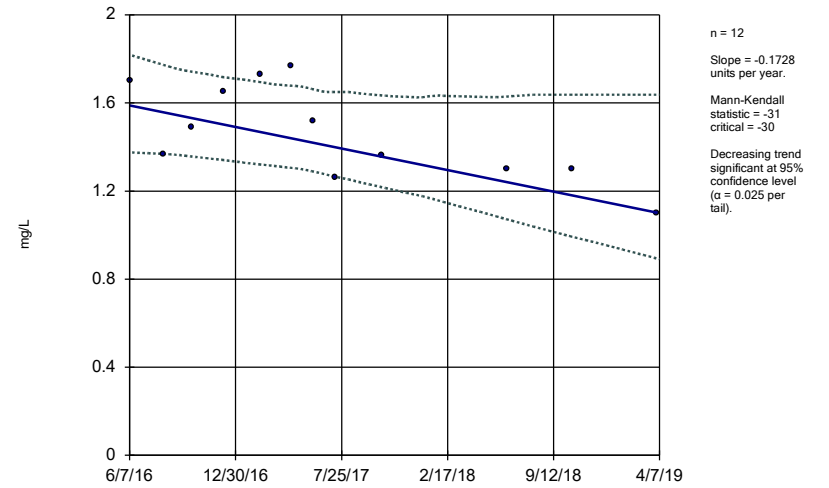
BGWC-14



Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

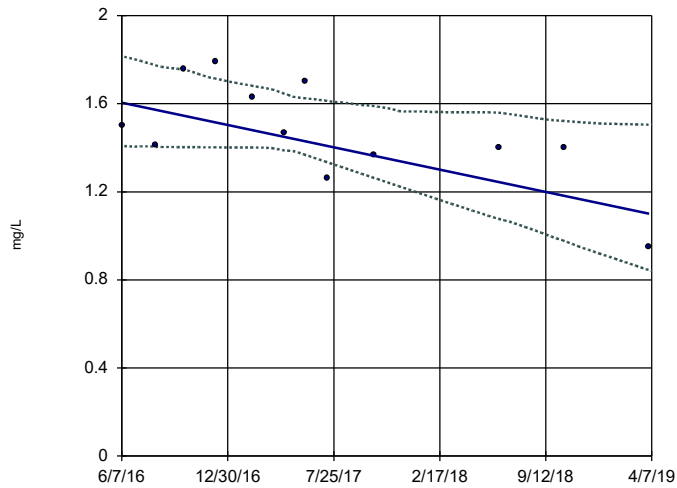
BGWC-16



Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

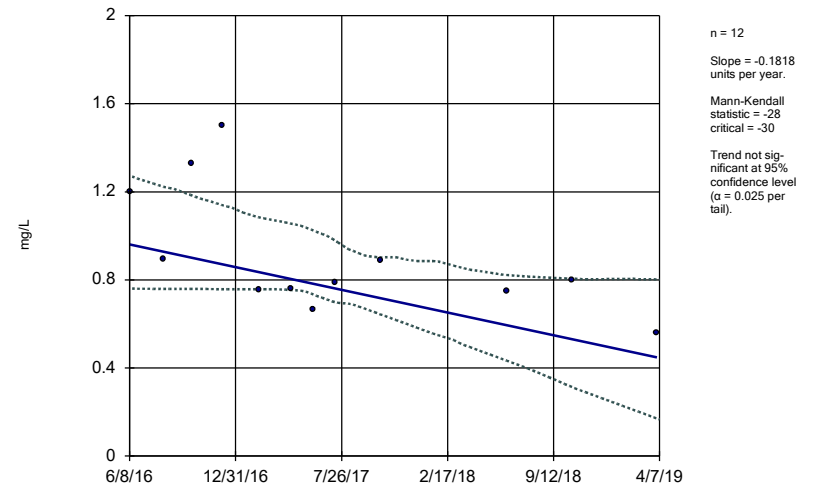
BGWC-17



Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

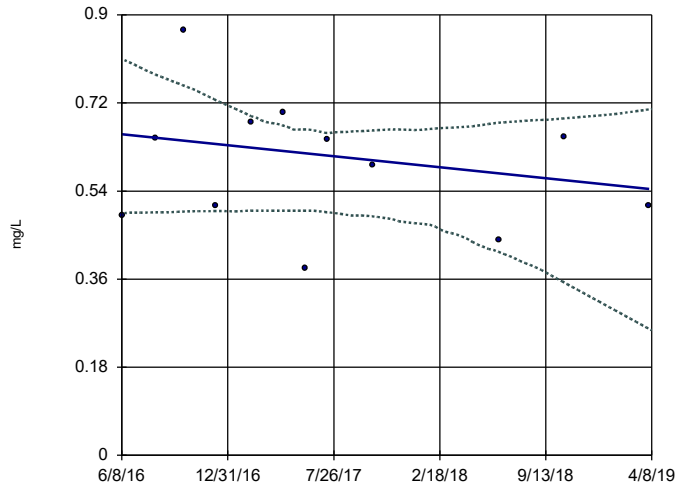
BGWC-18



Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-19

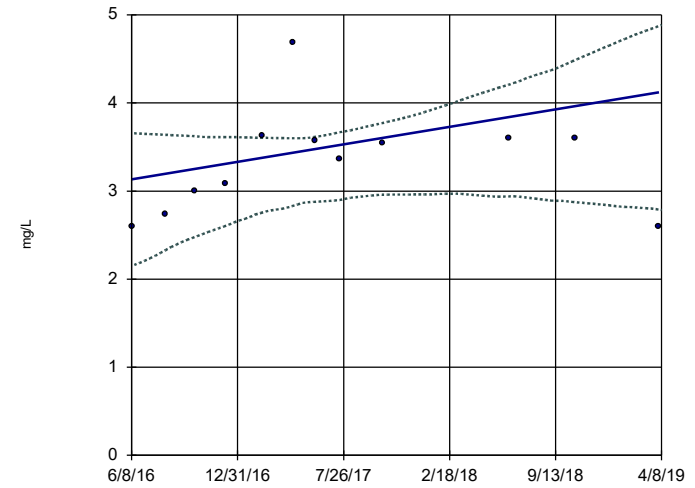


n = 12
 Slope = -0.03974
 units per year.
 Mann-Kendall
 statistic = -9
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-20

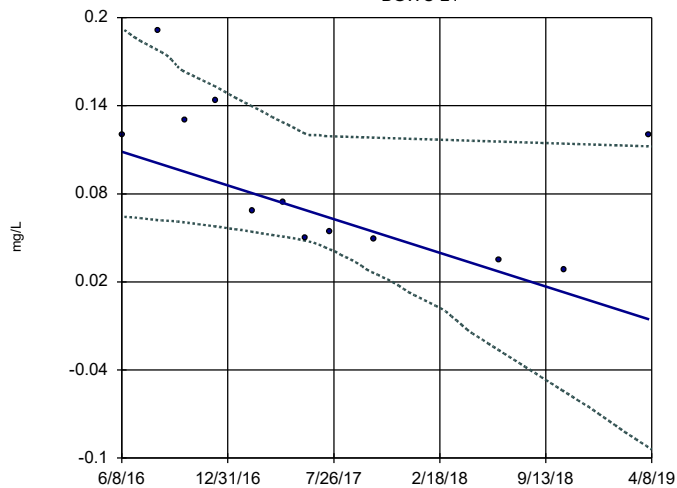


n = 12
 Slope = 0.3508
 units per year.
 Mann-Kendall
 statistic = 20
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-21

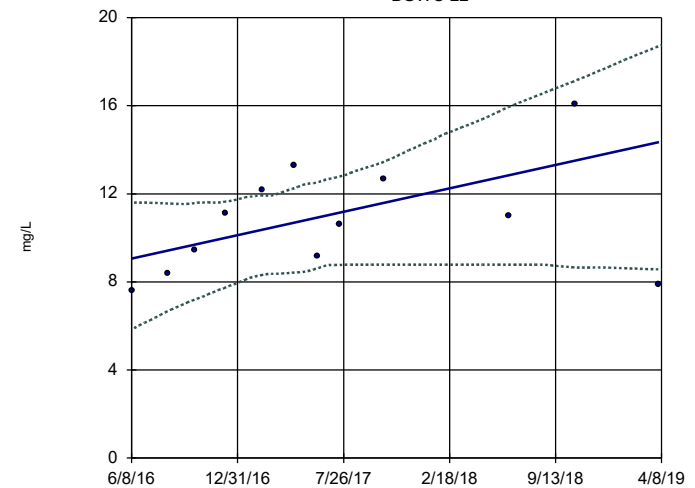


n = 12
 Slope = -0.04053
 units per year.
 Mann-Kendall
 statistic = -39
 critical = -30
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-22

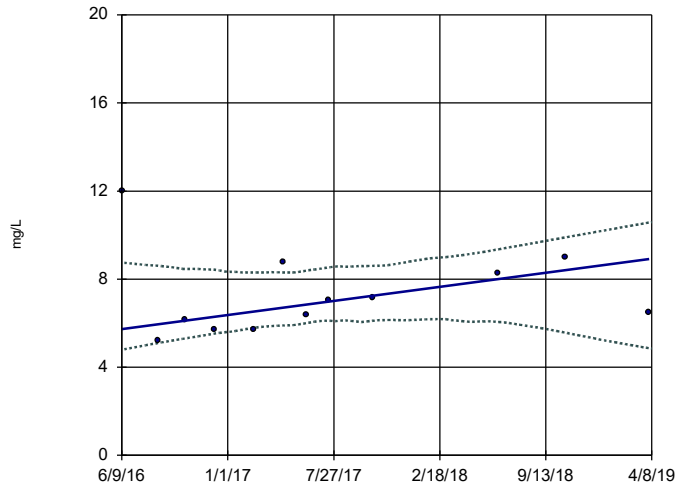


n = 12
 Slope = 1.877
 units per year.
 Mann-Kendall
 statistic = 22
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-23

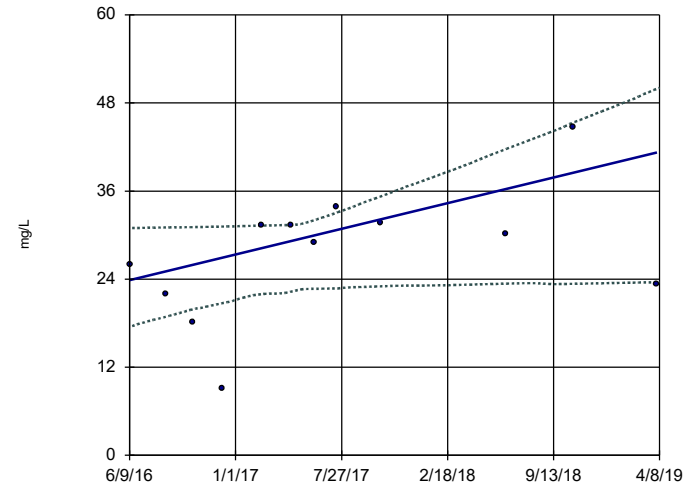


n = 12
 Slope = 1.13
 units per year.
 Mann-Kendall
 statistic = 21
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-24

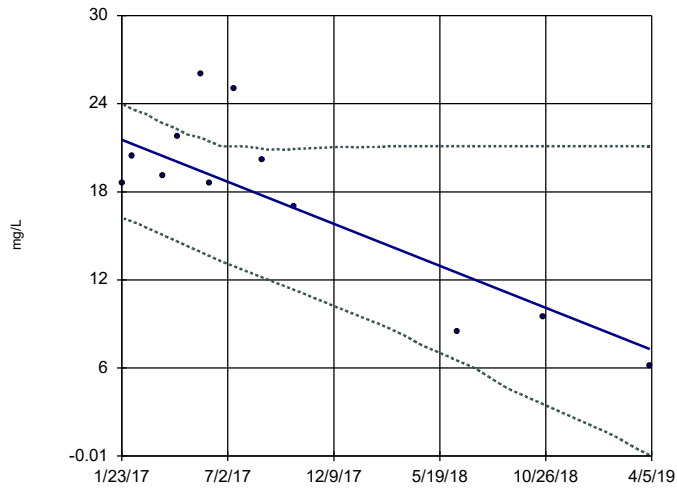


n = 12
 Slope = 6.179
 units per year.
 Mann-Kendall
 statistic = 23
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-30

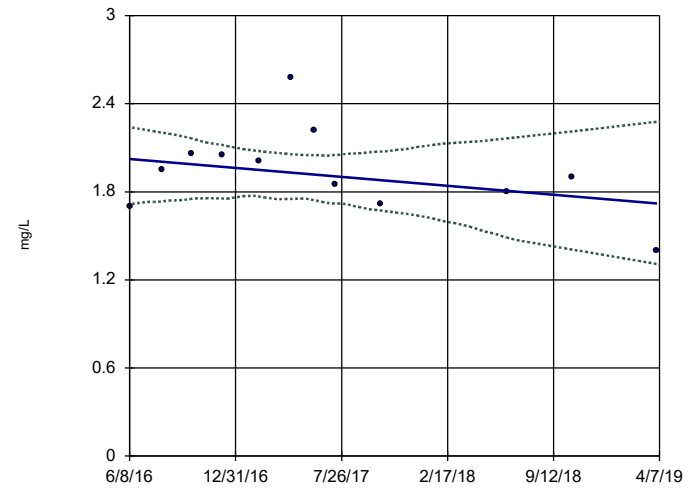


n = 12
 Slope = -6.519
 units per year.
 Mann-Kendall
 statistic = -29
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-7

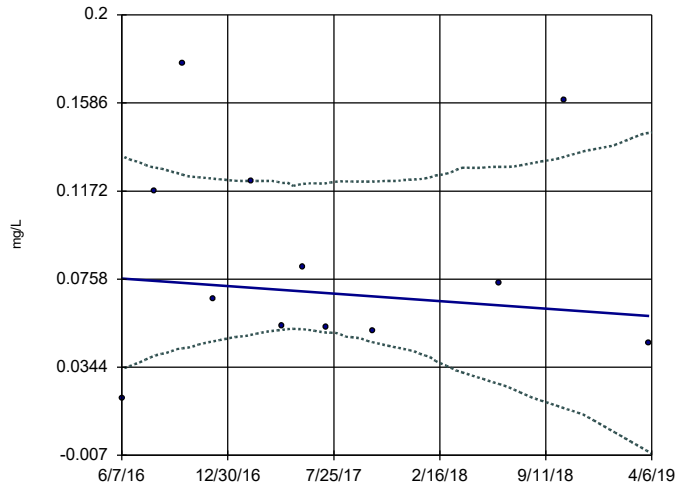


n = 12
 Slope = -0.1074
 units per year.
 Mann-Kendall
 statistic = -16
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-8

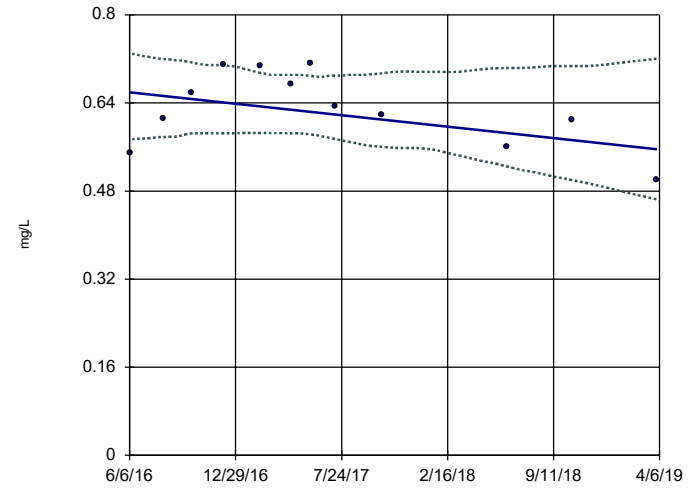


n = 12
 Slope = -0.006228 units per year.
 Mann-Kendall statistic = -10
 critical = -30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-9

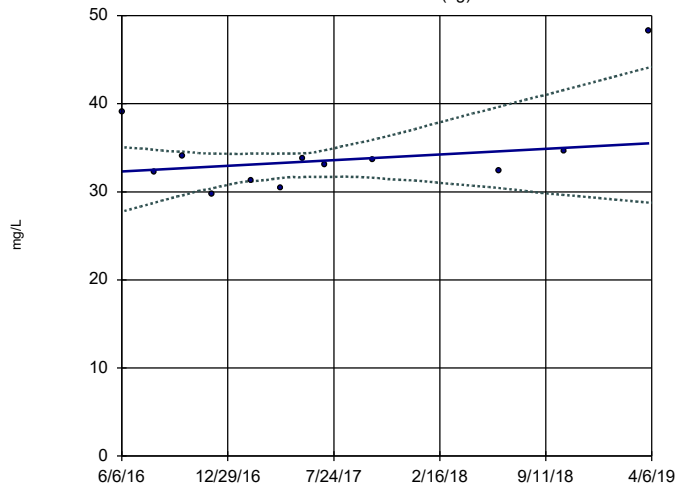


n = 12
 Slope = -0.03674 units per year.
 Mann-Kendall statistic = -16
 critical = -30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Boron Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-2 (bg)

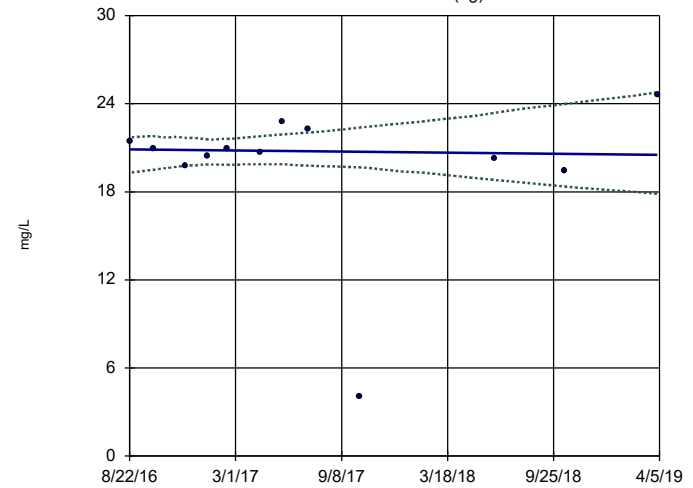


n = 12
 Slope = 1.136 units per year.
 Mann-Kendall statistic = 14
 critical = 30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-29 (bg)

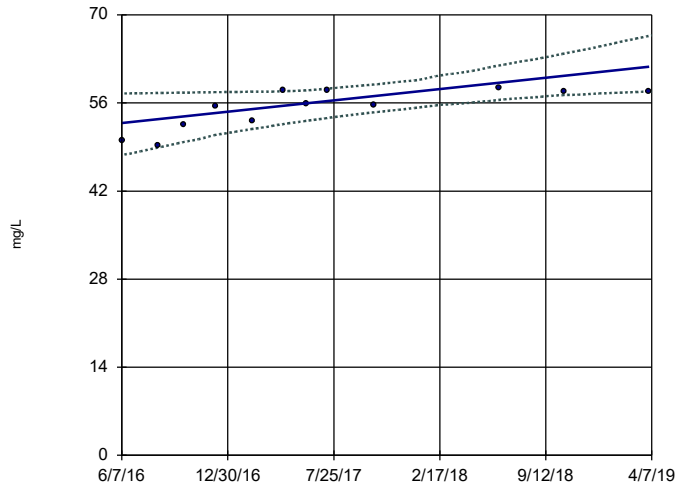


n = 12
 Slope = -0.142 units per year.
 Mann-Kendall statistic = -3
 critical = -30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-10

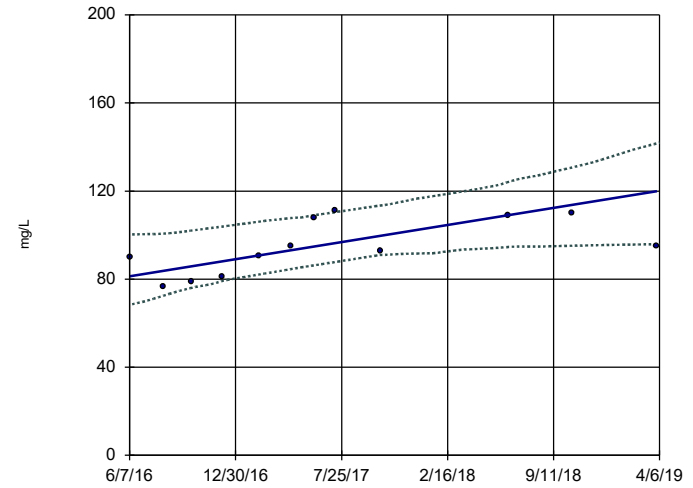


n = 12
 Slope = 3.17
 units per year.
 Mann-Kendall
 statistic = 41
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-12

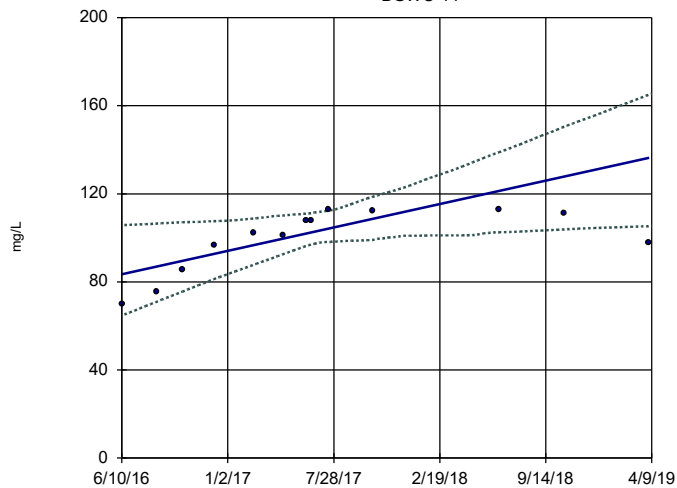


n = 12
 Slope = 13.72
 units per year.
 Mann-Kendall
 statistic = 41
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-14

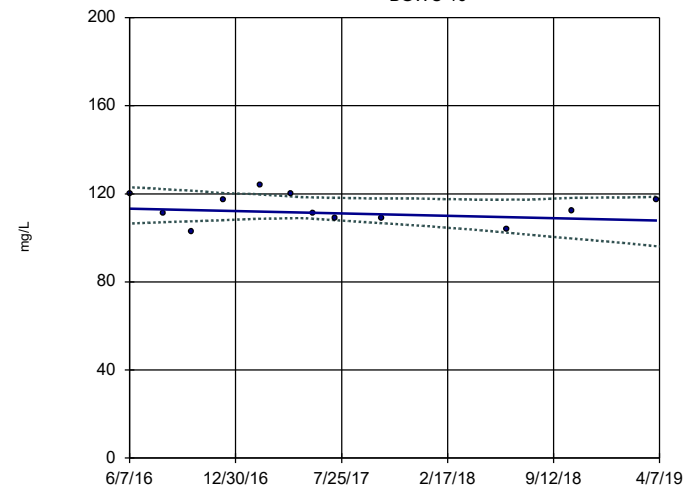


n = 13
 Slope = 18.79
 units per year.
 Mann-Kendall
 statistic = 50
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-16

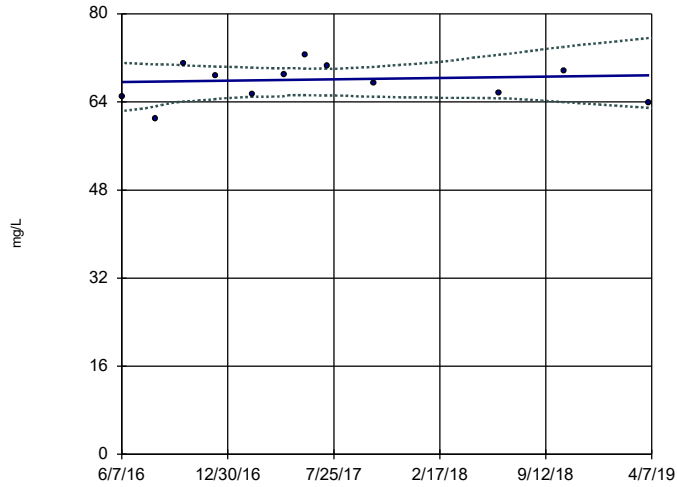


n = 12
 Slope = -1.94
 units per year.
 Mann-Kendall
 statistic = -10
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-17

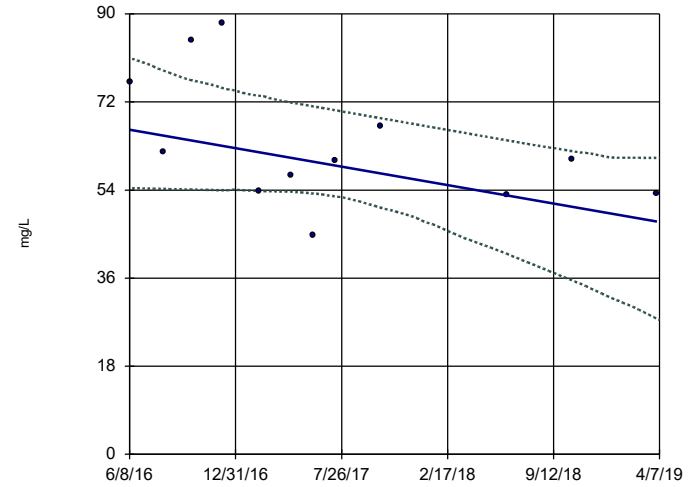


n = 12
 Slope = 0.4407
 units per year.
 Mann-Kendall
 statistic = 4
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-18

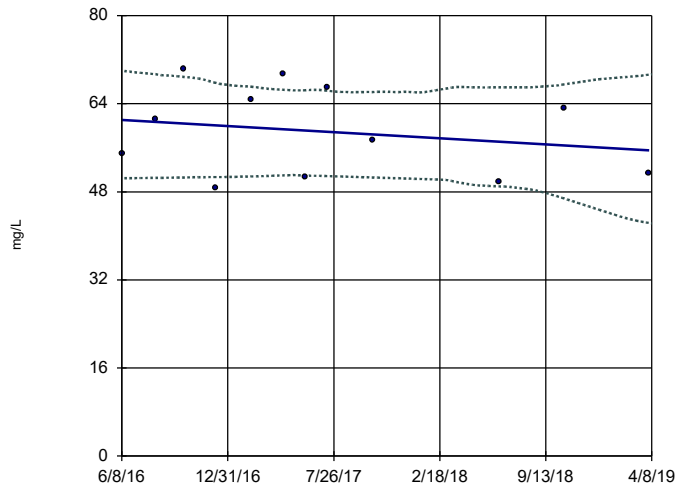


n = 12
 Slope = -6.655
 units per year.
 Mann-Kendall
 statistic = -22
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-19

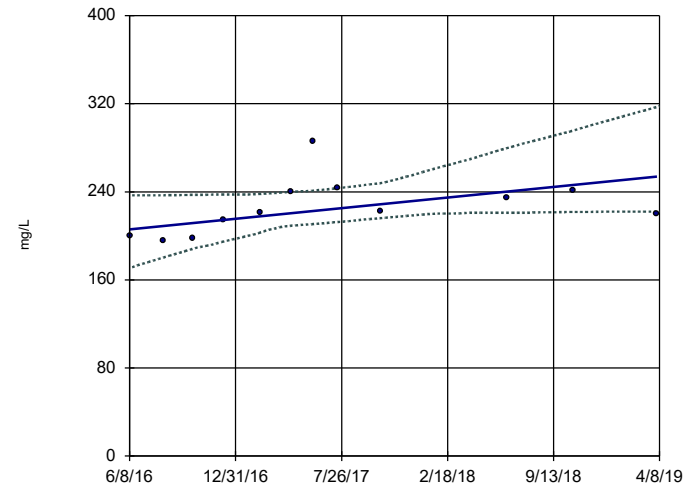


n = 12
 Slope = -1.971
 units per year.
 Mann-Kendall
 statistic = -8
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-20

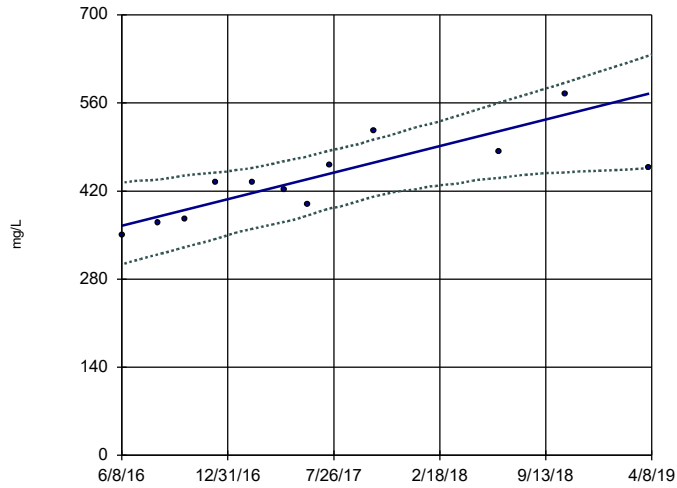


n = 12
 Slope = 17.08
 units per year.
 Mann-Kendall
 statistic = 30
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-22

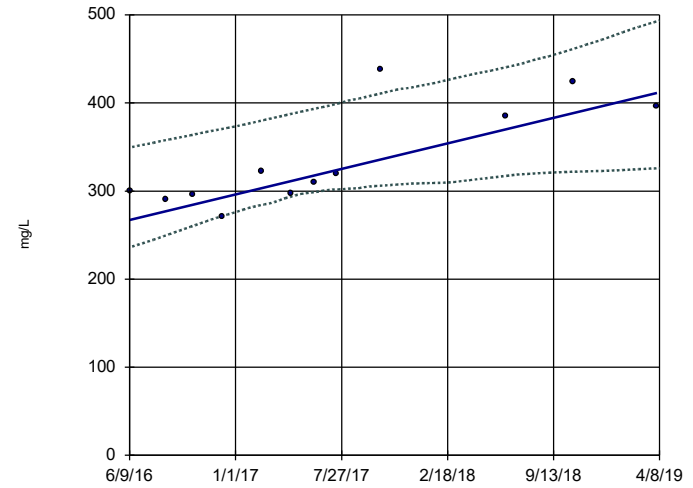


n = 12
 Slope = 74.47
 units per year.
 Mann-Kendall
 statistic = 45
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-23

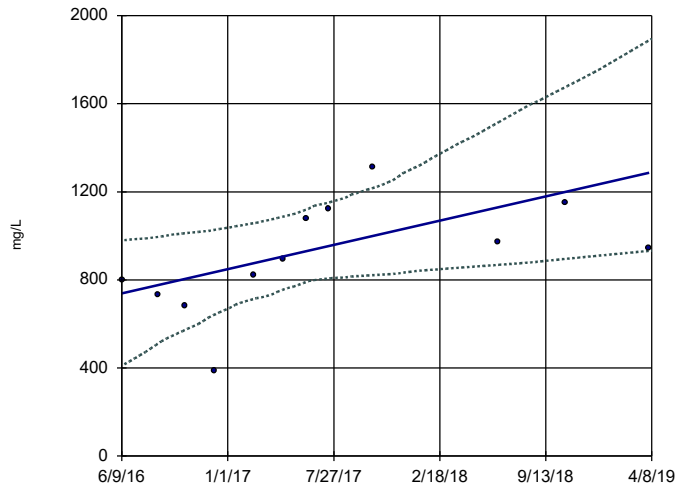


n = 12
 Slope = 51.16
 units per year.
 Mann-Kendall
 statistic = 40
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-24

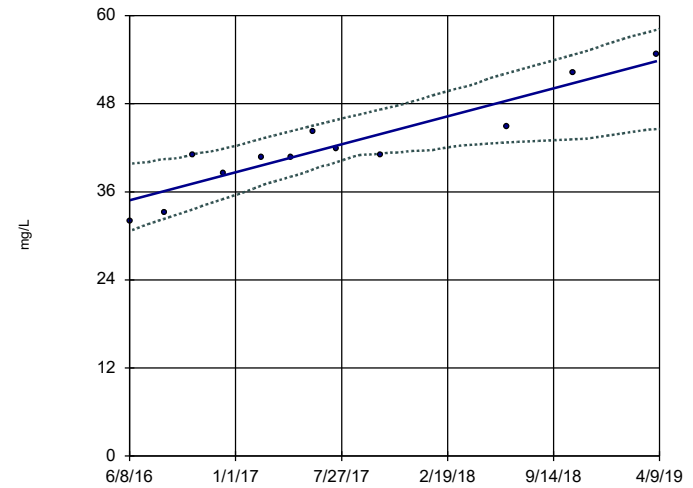


n = 12
 Slope = 194.4
 units per year.
 Mann-Kendall
 statistic = 36
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-25

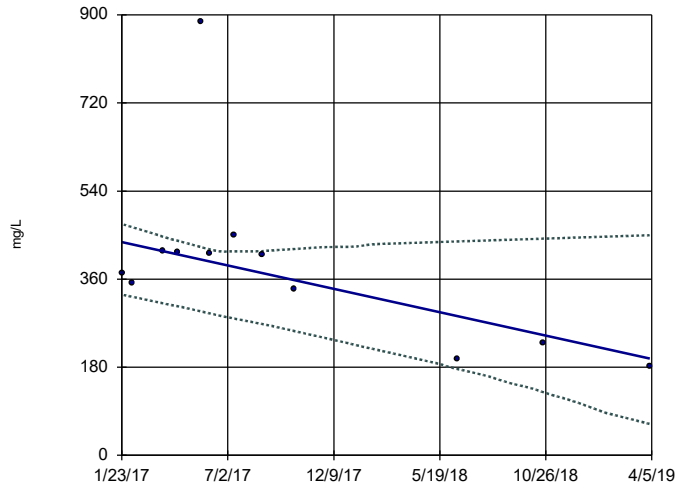


n = 12
 Slope = 6.718
 units per year.
 Mann-Kendall
 statistic = 53
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

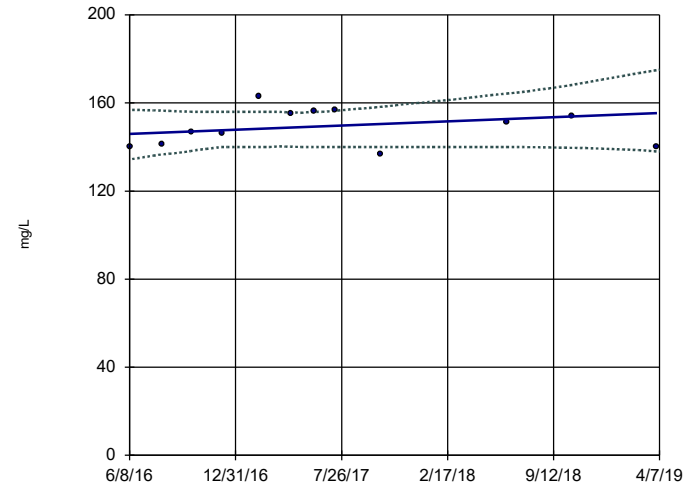
BGWC-30



Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

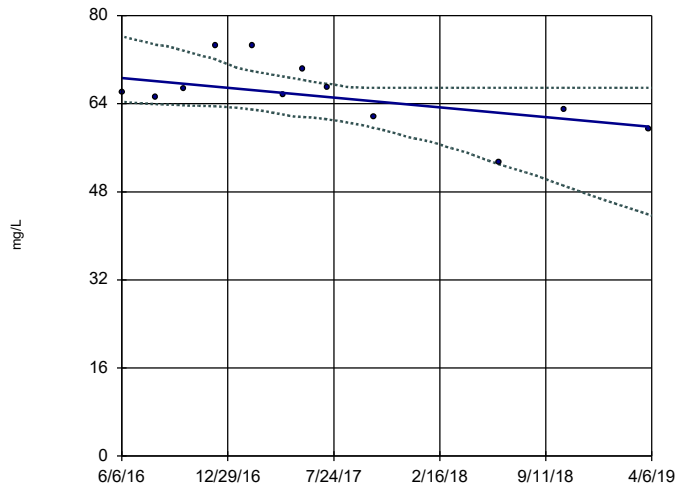
BGWC-7



Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

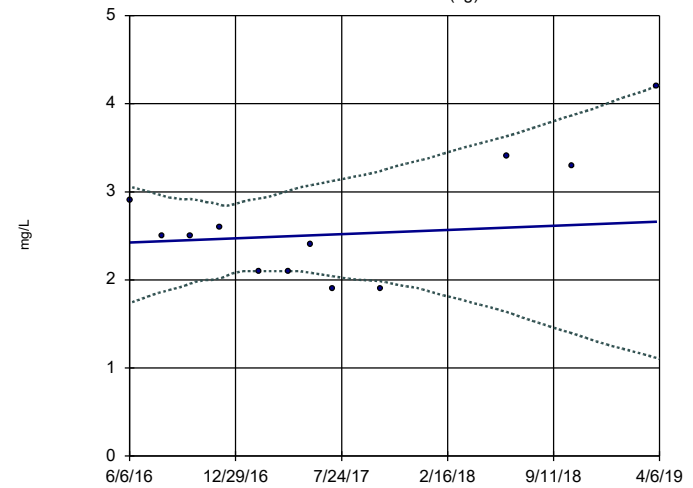
BGWC-9



Constituent: Calcium Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

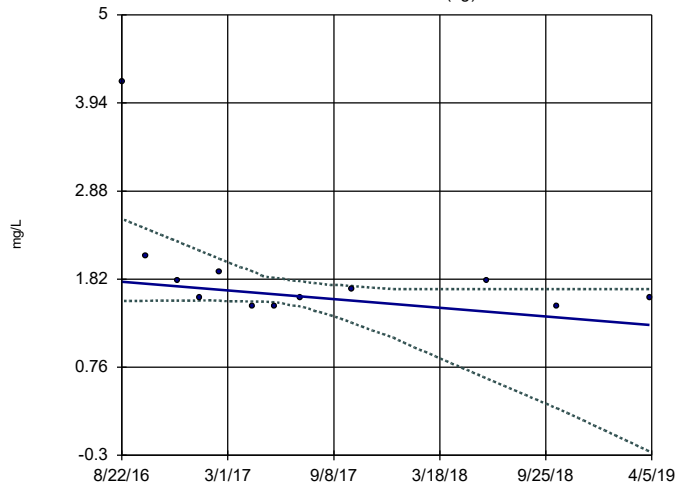
BGWA-2 (bg)



Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-29 (bg)

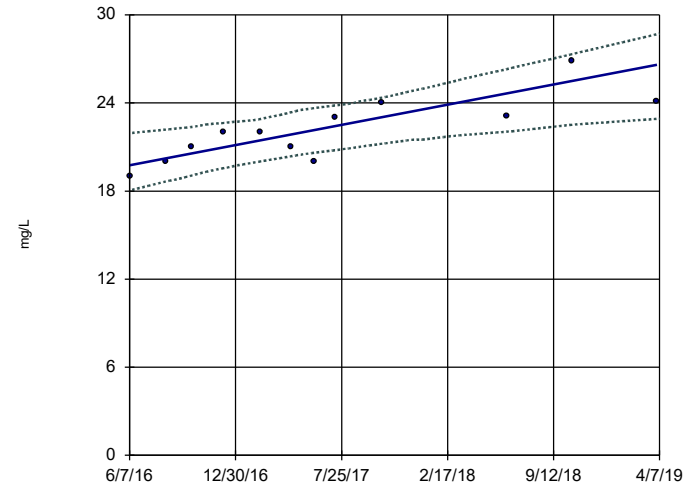


n = 12
 Slope = -0.1988 units per year.
 Mann-Kendall statistic = -27
 critical = -30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-10

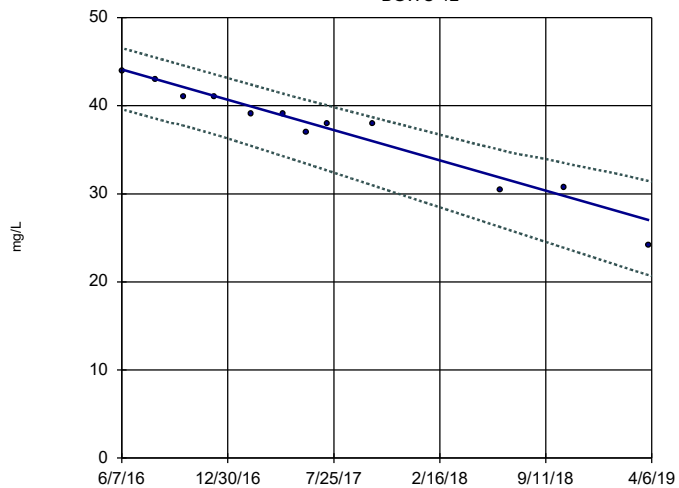


n = 12
 Slope = 2.431 units per year.
 Mann-Kendall statistic = 47
 critical = 30
 Increasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-12

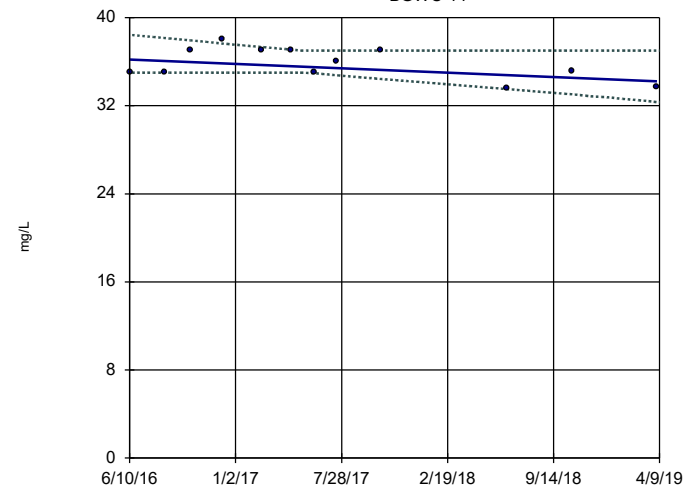


n = 12
 Slope = -6.079 units per year.
 Mann-Kendall statistic = -57
 critical = -30
 Decreasing trend significant at 95% confidence level (α = 0.025 per tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-14

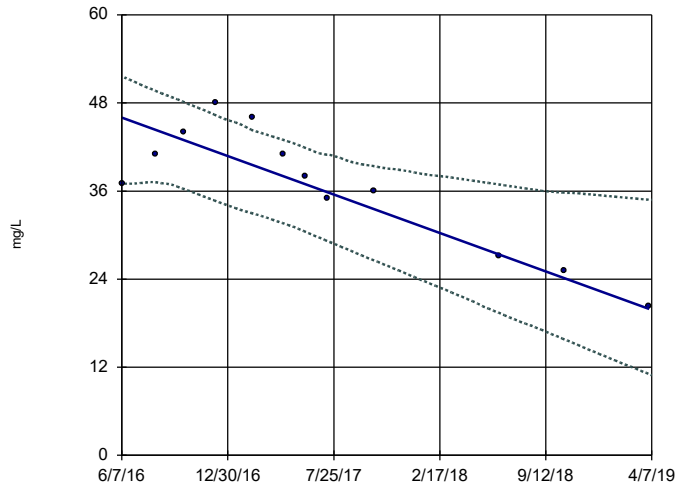


n = 12
 Slope = -0.7033 units per year.
 Mann-Kendall statistic = -15
 critical = -30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-16

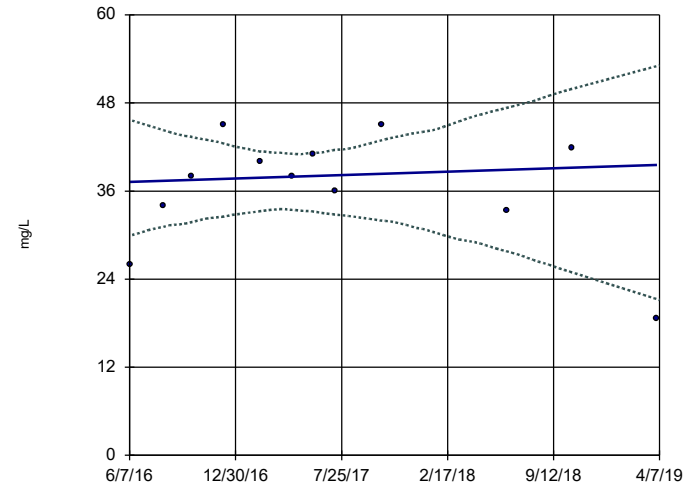


n = 12
 Slope = -9.247
 units per year.
 Mann-Kendall
 statistic = -41
 critical = -30
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-17

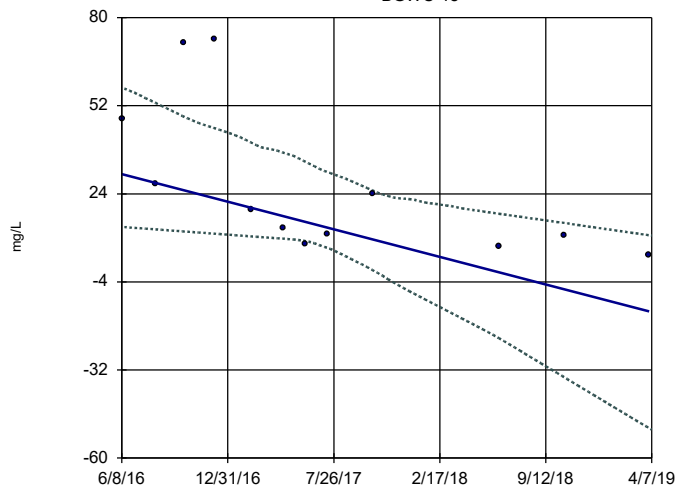


n = 12
 Slope = 0.8294
 units per year.
 Mann-Kendall
 statistic = 4
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-18

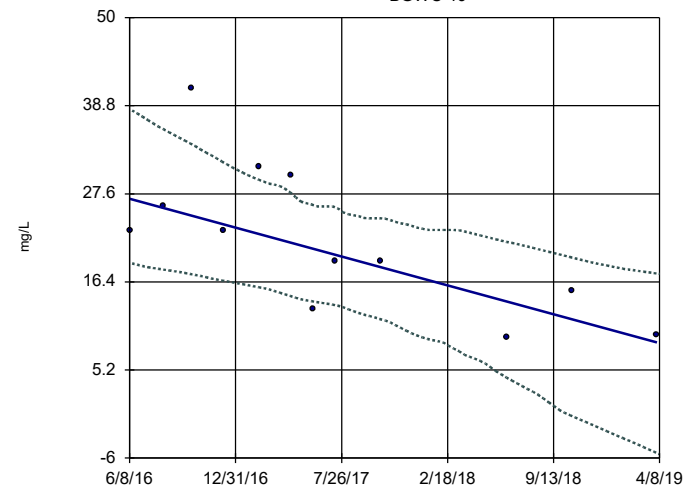


n = 12
 Slope = -15.49
 units per year.
 Mann-Kendall
 statistic = -42
 critical = -30
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-19

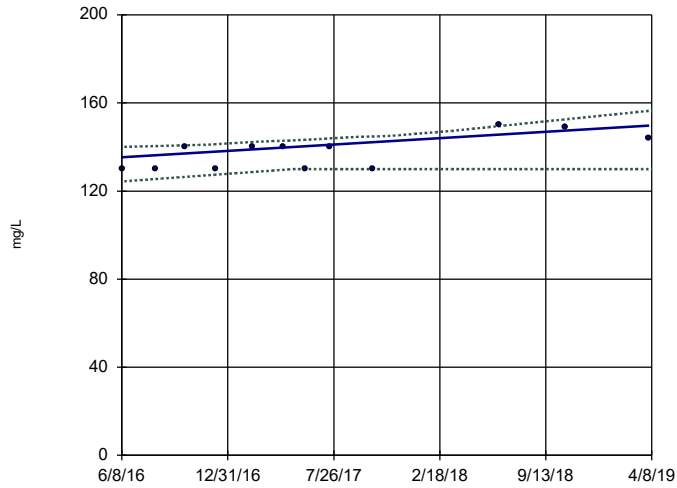


n = 12
 Slope = -6.482
 units per year.
 Mann-Kendall
 statistic = -36
 critical = -30
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

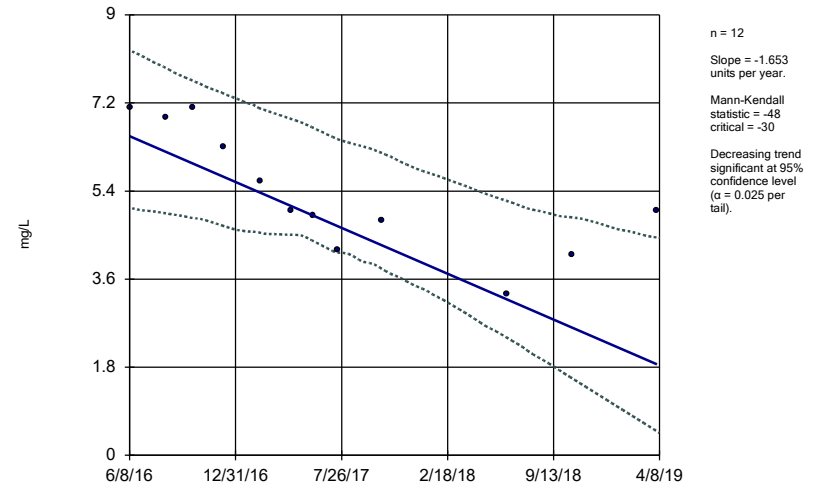
BGWC-20



Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

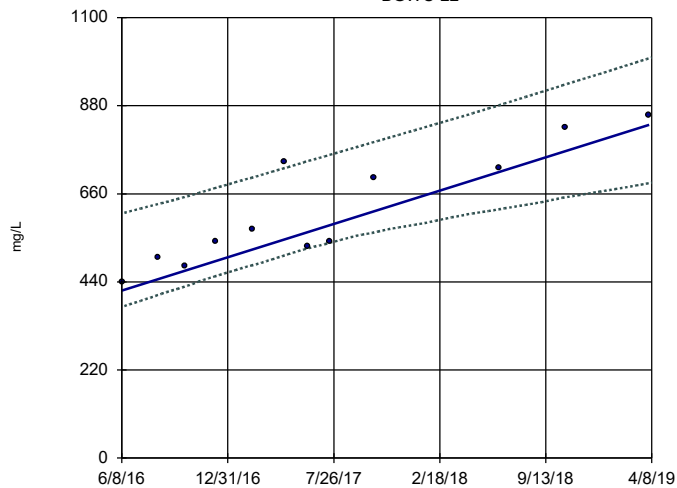
BGWC-21



Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

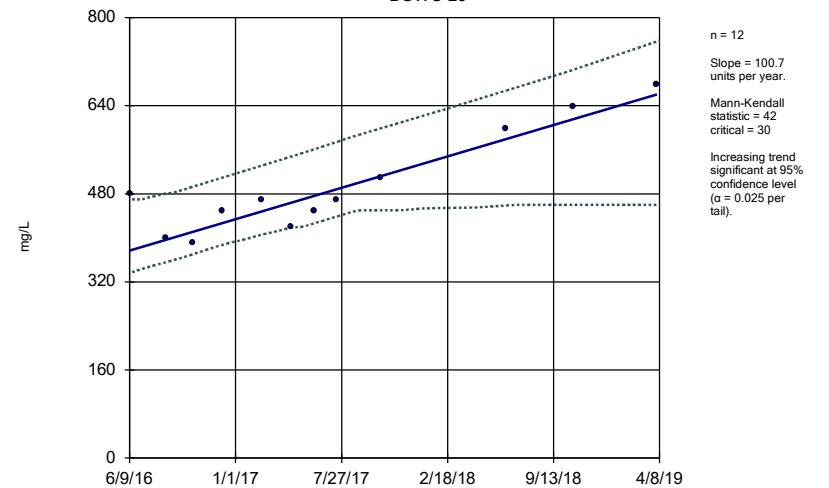
BGWC-22



Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

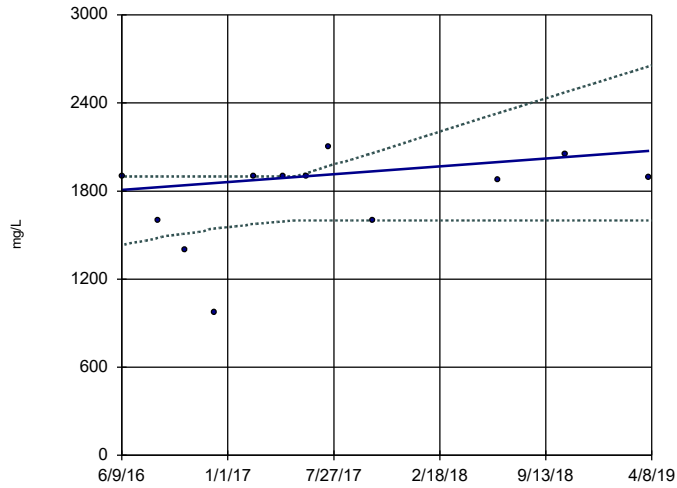
BGWC-23



Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-24

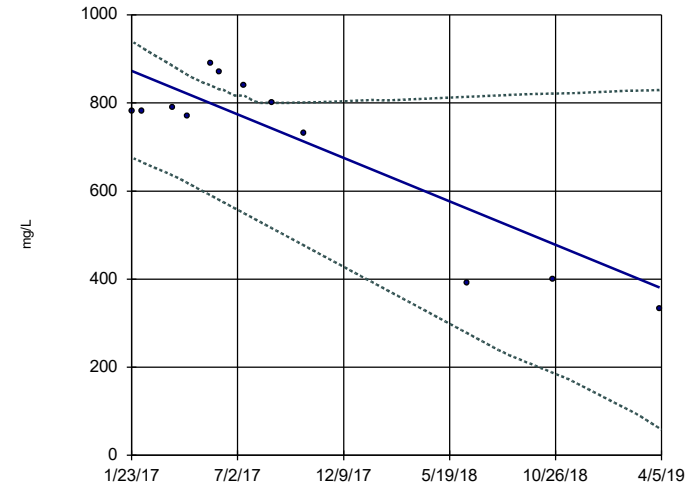


n = 12
 Slope = 94.63
 units per year.
 Mann-Kendall
 statistic = 13
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-30

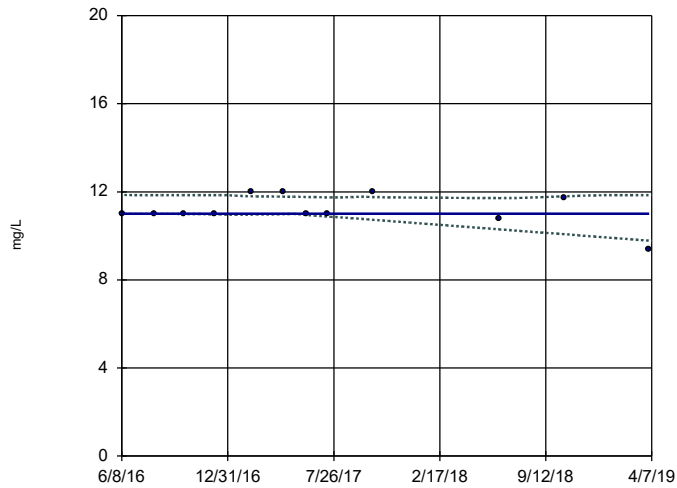


n = 12
 Slope = -224.9
 units per year.
 Mann-Kendall
 statistic = -27
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-7

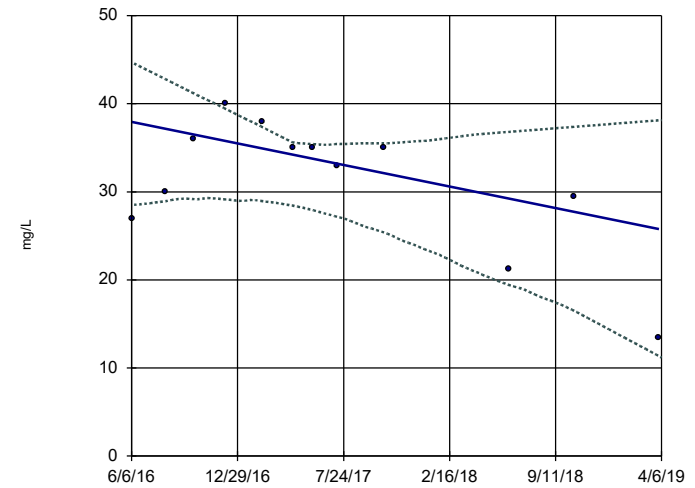


n = 12
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -6
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-9

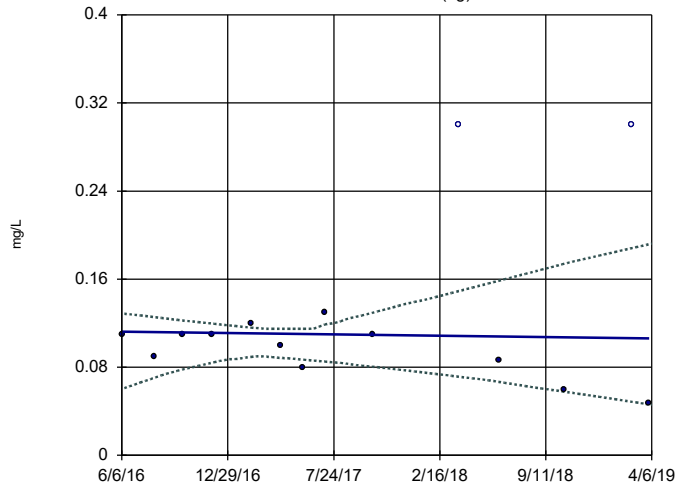


n = 12
 Slope = -4.318
 units per year.
 Mann-Kendall
 statistic = -23
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-2 (bg)

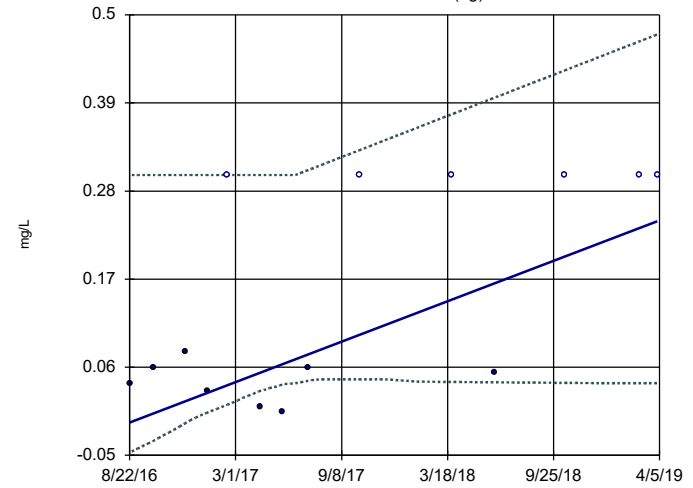


n = 14
Slope = -0.002173
units per year.
Mann-Kendall
statistic = -8
critical = -37
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-29 (bg)

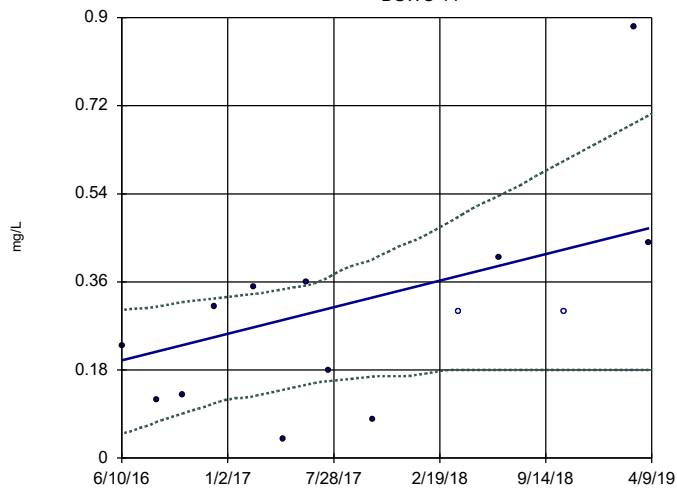


n = 14
Slope = 0.09637
units per year.
Mann-Kendall
statistic = 31
critical = 37
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-14

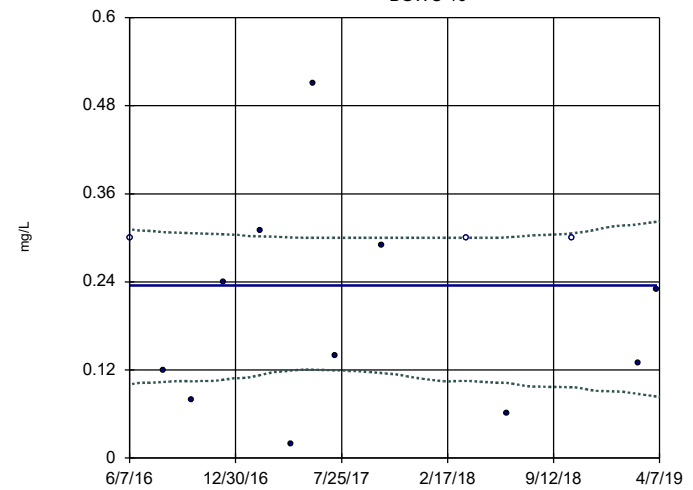


n = 14
Slope = 0.09584
units per year.
Mann-Kendall
statistic = 38
critical = 37
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-16

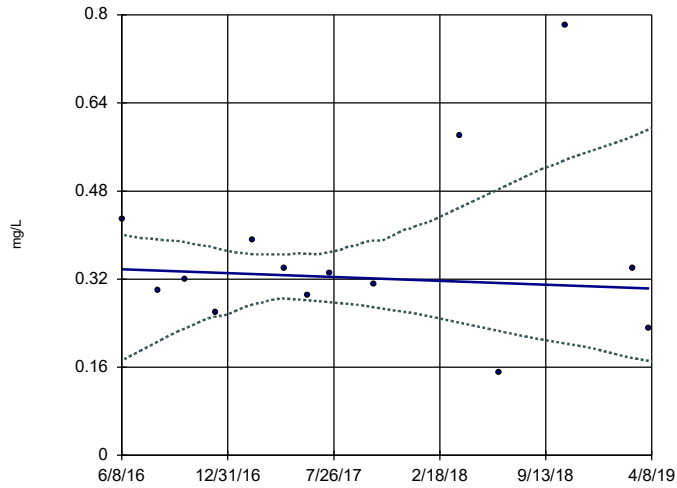


n = 14
Slope = 0
units per year.
Mann-Kendall
statistic = 0
critical = 37
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-22



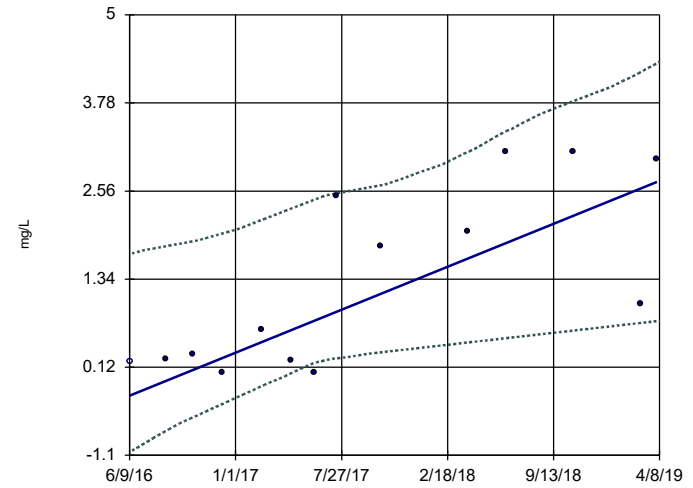
n = 14
 Slope = -0.01254
 units per year.
 Mann-Kendall
 statistic = -4
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

BGWC-24

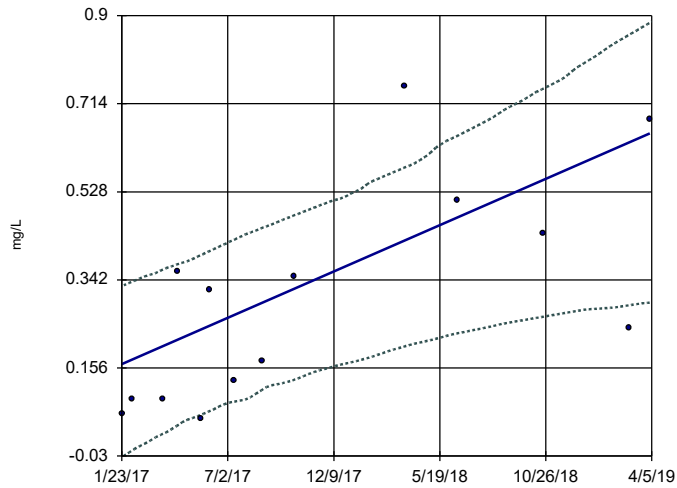


n = 14
 Slope = 1.052
 units per year.
 Mann-Kendall
 statistic = 49
 critical = 37
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-30



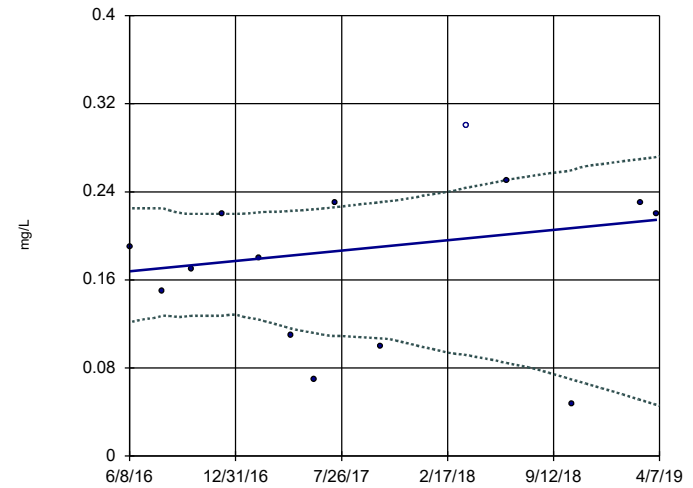
n = 14
 Slope = 0.2226
 units per year.
 Mann-Kendall
 statistic = 50
 critical = 37
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Hollow symbols indicate censored values.

Sen's Slope and 95% Confidence Band

BGWC-7

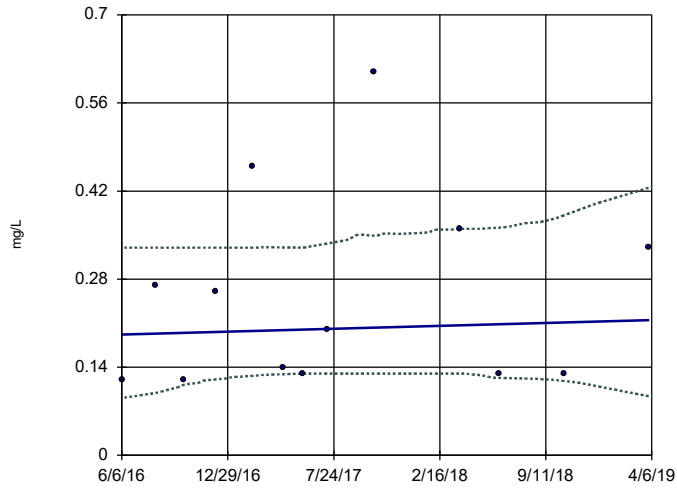


n = 14
 Slope = 0.01659
 units per year.
 Mann-Kendall
 statistic = 9
 critical = 37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-9

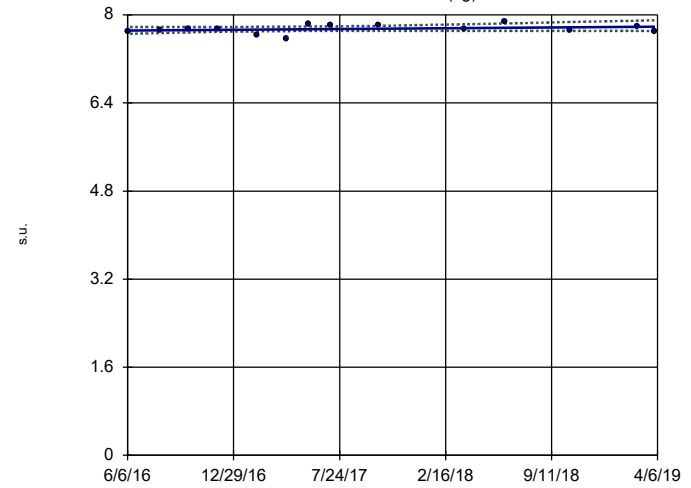


n = 13
 Slope = 0.008123 units per year.
 Mann-Kendall statistic = 12
 critical = 34
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Fluoride Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-2 (bg)

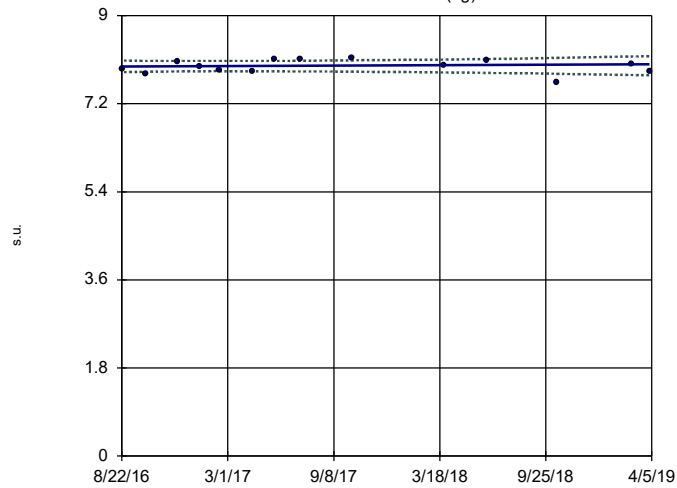


n = 14
 Slope = 0.02355 units per year.
 Mann-Kendall statistic = 16
 critical = 37
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-29 (bg)

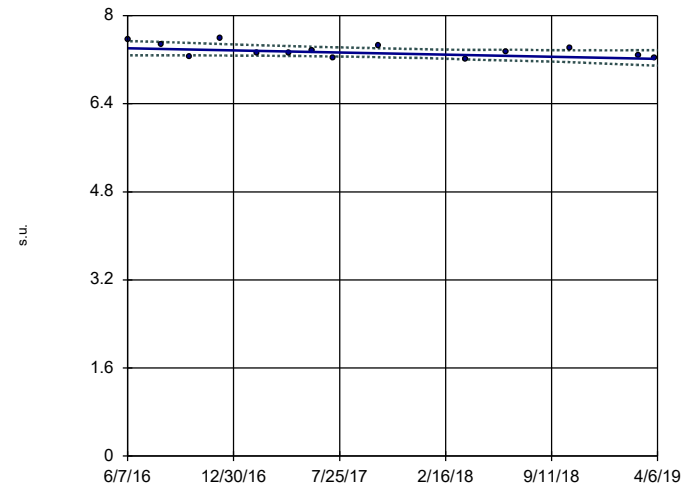


n = 14
 Slope = 0.01606 units per year.
 Mann-Kendall statistic = 5
 critical = 37
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-12

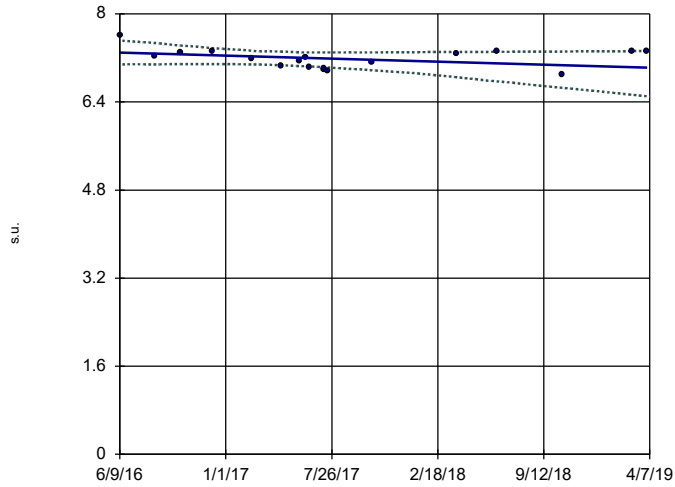


n = 14
 Slope = -0.06775 units per year.
 Mann-Kendall statistic = -33
 critical = -37
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-14

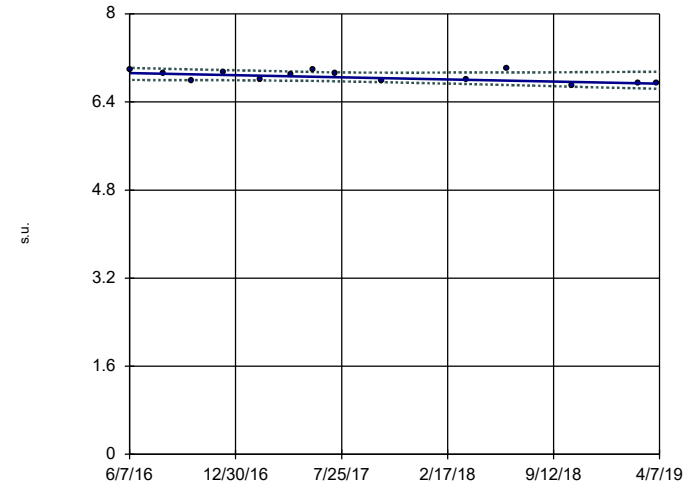


n = 18
 Slope = -0.09707
 units per year.
 Mann-Kendall
 statistic = -21
 critical = -53
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-16

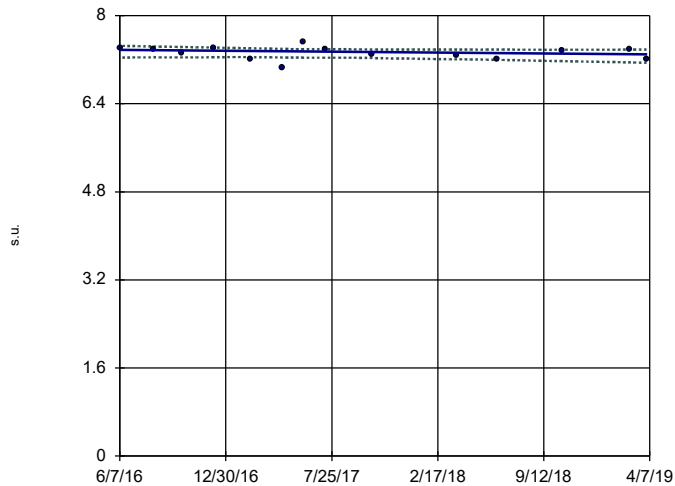


n = 14
 Slope = -0.06815
 units per year.
 Mann-Kendall
 statistic = -31
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-17

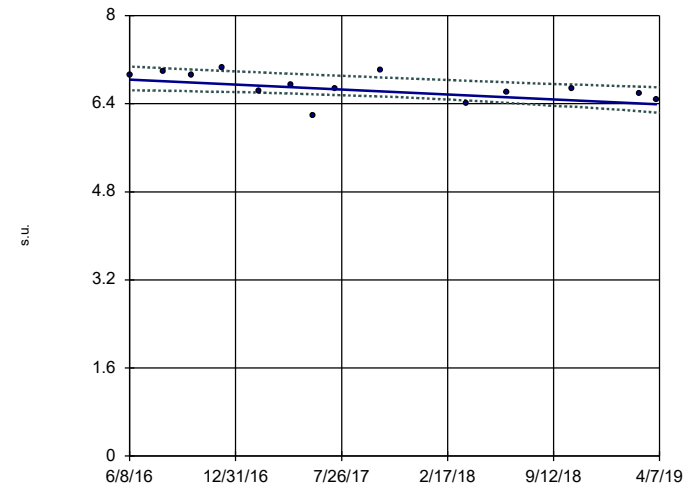


n = 14
 Slope = -0.02967
 units per year.
 Mann-Kendall
 statistic = -25
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-18

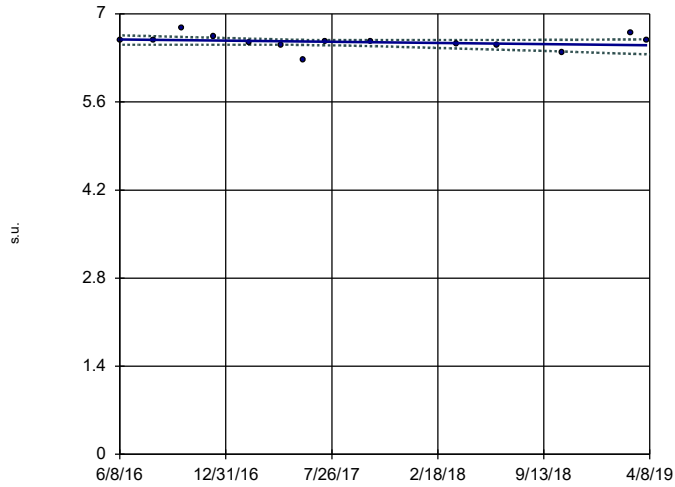


n = 14
 Slope = -0.1587
 units per year.
 Mann-Kendall
 statistic = -41
 critical = -37
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-19

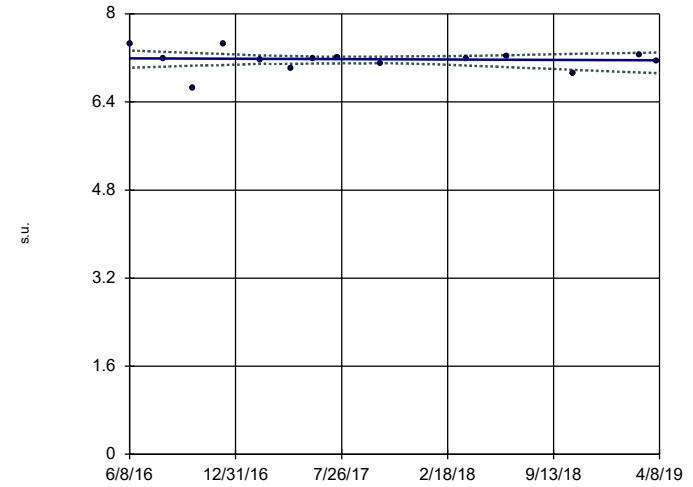


n = 14
 Slope = -0.03333
 units per year.
 Mann-Kendall
 statistic = -20
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-20

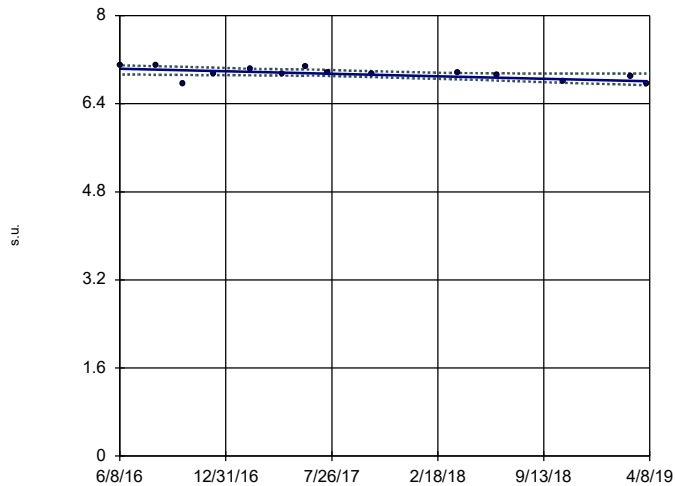


n = 14
 Slope = -0.01413
 units per year.
 Mann-Kendall
 statistic = -2
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-22

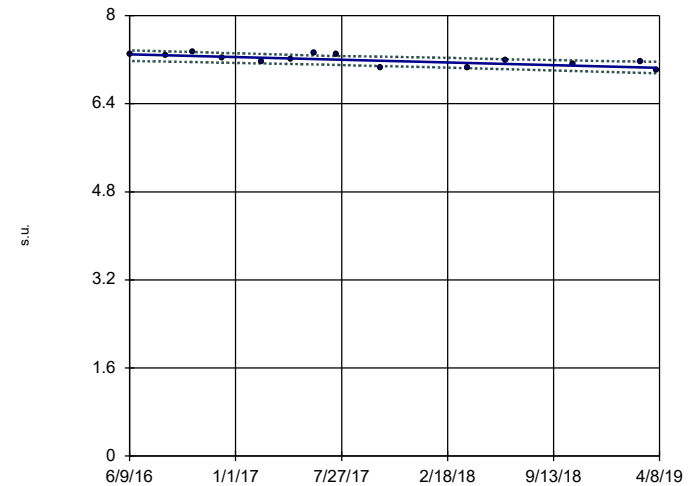


n = 14
 Slope = -0.07892
 units per year.
 Mann-Kendall
 statistic = -44
 critical = -37
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-23

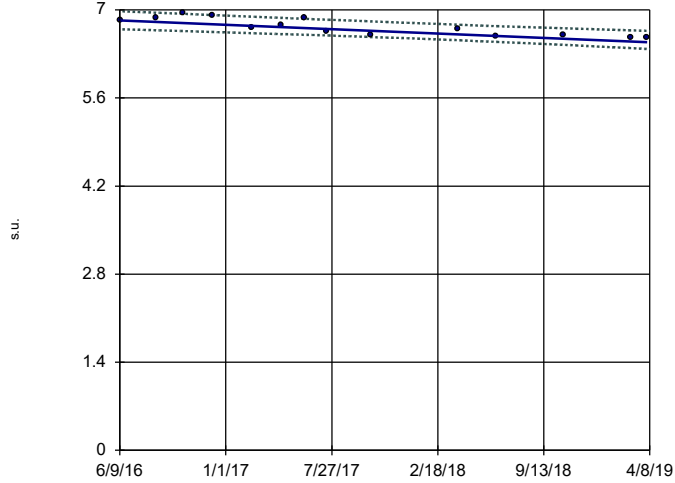


n = 14
 Slope = -0.08632
 units per year.
 Mann-Kendall
 statistic = -48
 critical = -37
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-24

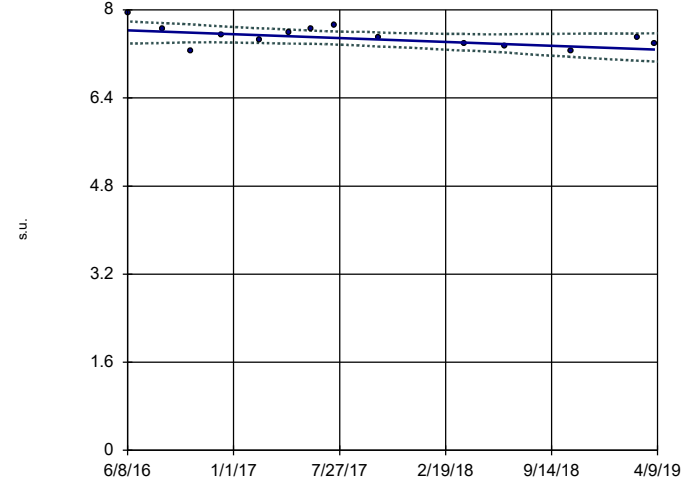


n = 14
 Slope = -0.124
 units per year.
 Mann-Kendall
 statistic = -64
 critical = -37
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-25

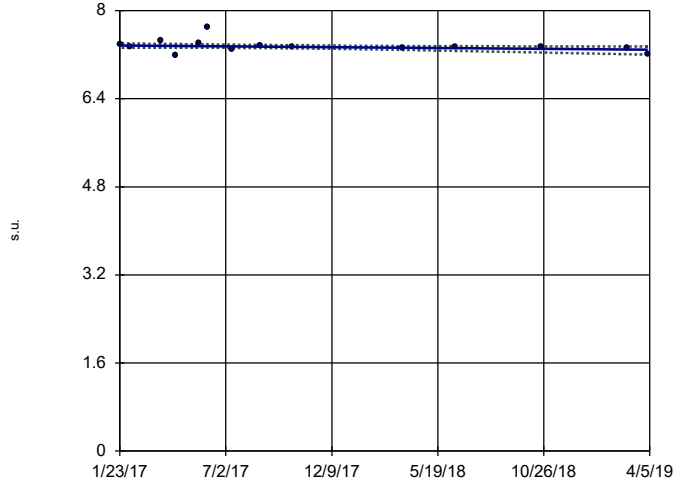


n = 14
 Slope = -0.1229
 units per year.
 Mann-Kendall
 statistic = -36
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-30

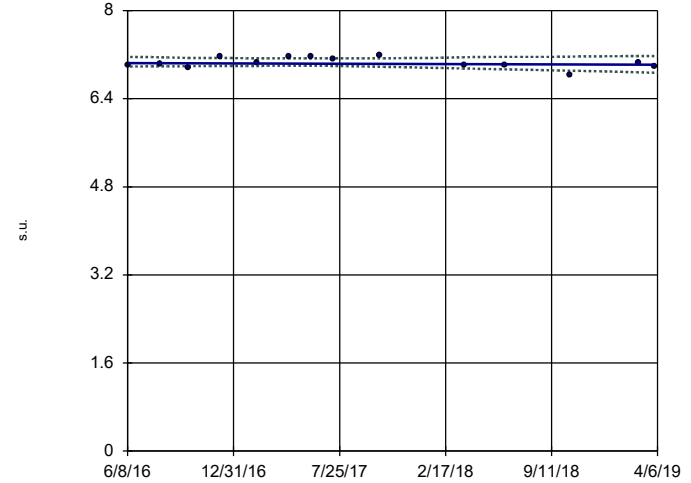


n = 14
 Slope = -0.03523
 units per year.
 Mann-Kendall
 statistic = -30
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-7

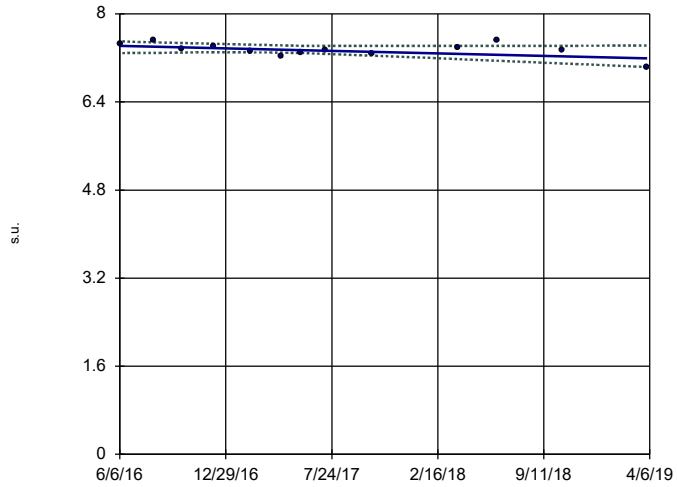


n = 14
 Slope = -0.009838
 units per year.
 Mann-Kendall
 statistic = -8
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-9

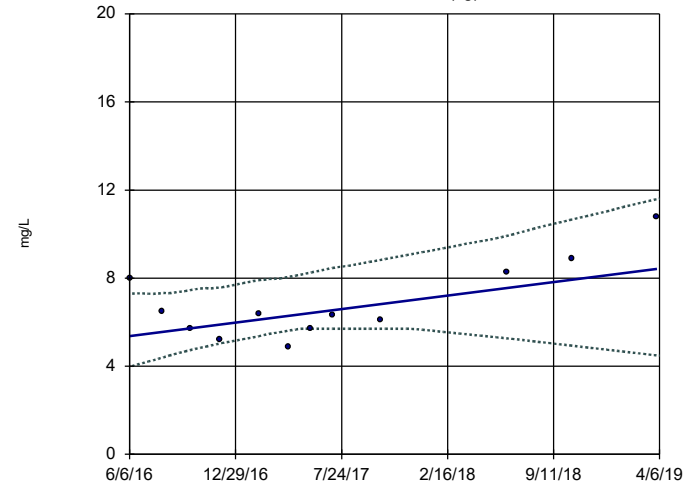


n = 13
 Slope = -0.08012
 units per year.
 Mann-Kendall
 statistic = -24
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-2 (bg)

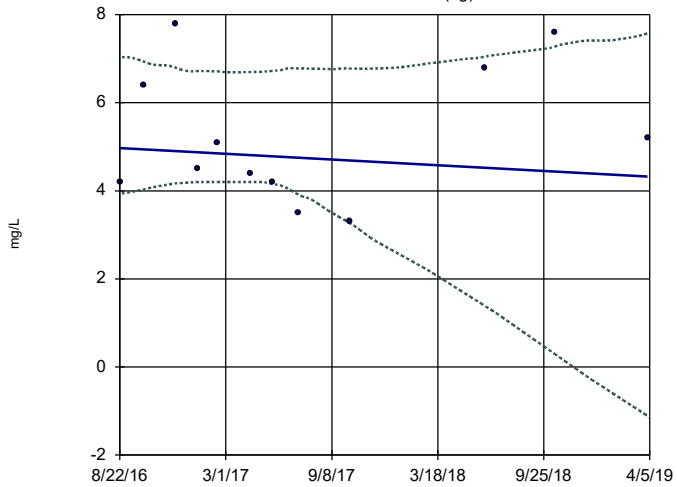


n = 12
 Slope = 1.082
 units per year.
 Mann-Kendall
 statistic = 19
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-29 (bg)

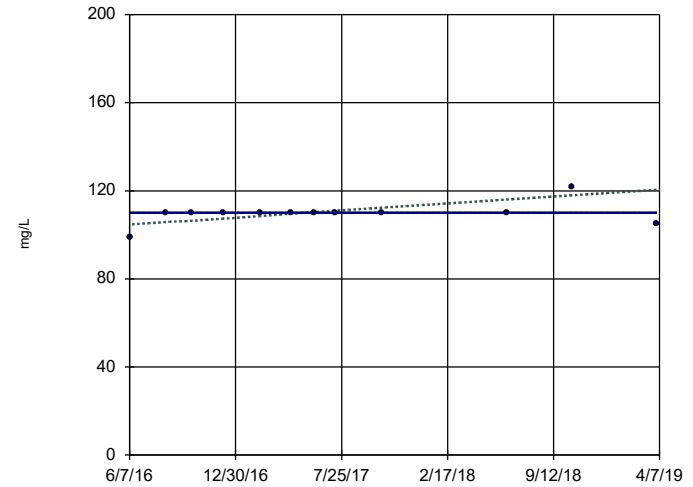


n = 12
 Slope = -0.2475
 units per year.
 Mann-Kendall
 statistic = -3
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-10

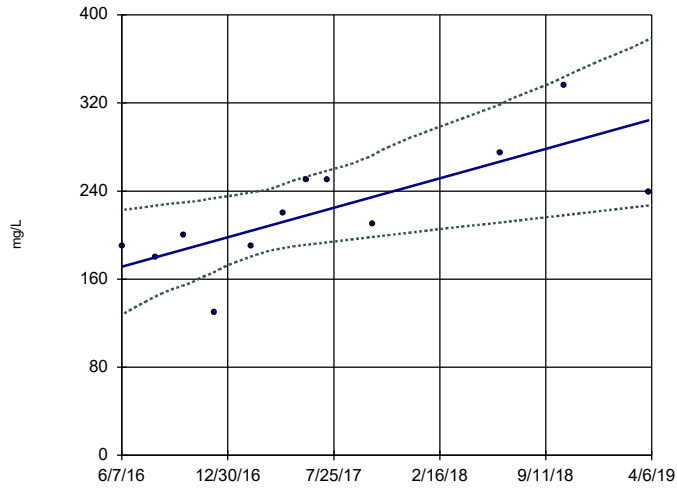


n = 12
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 10
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-12

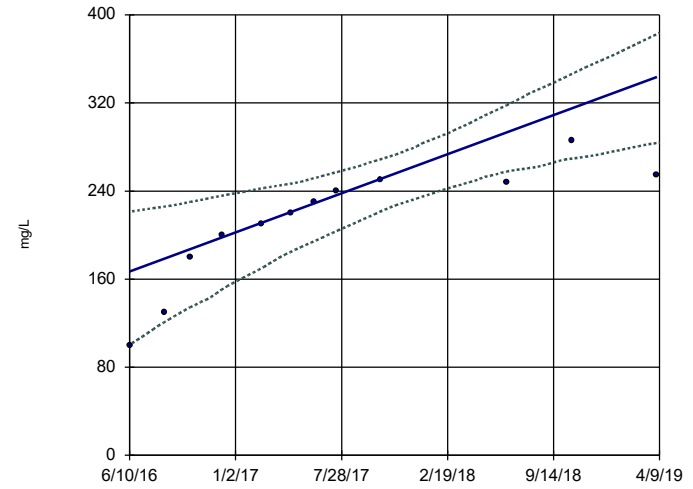


n = 12
 Slope = 47.27
 units per year.
 Mann-Kendall
 statistic = 40
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-14

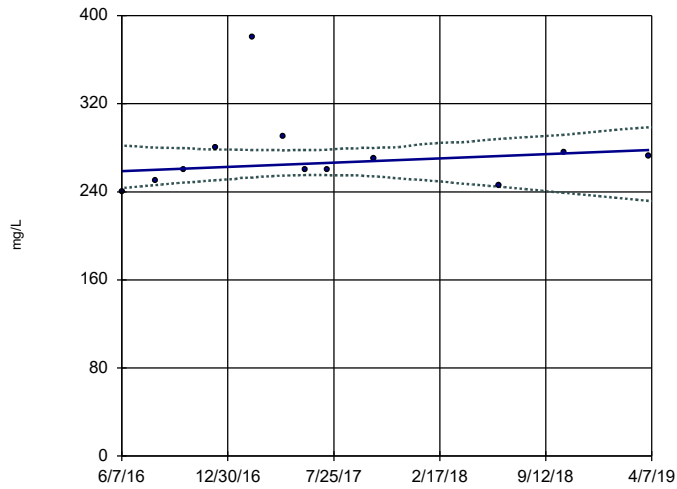


n = 12
 Slope = 62.8
 units per year.
 Mann-Kendall
 statistic = 62
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-16

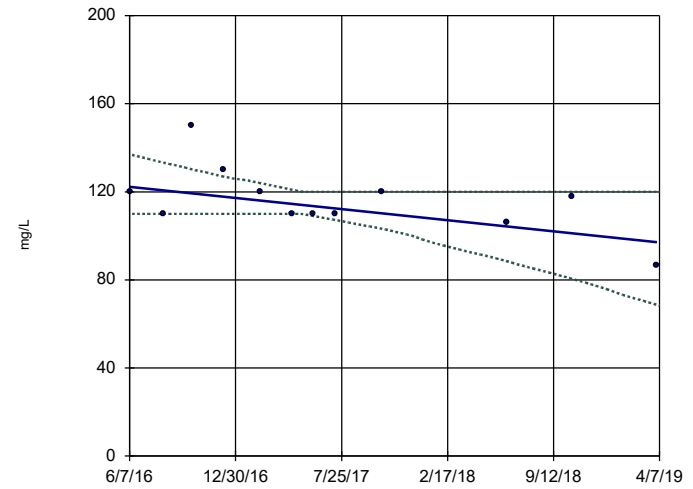


n = 12
 Slope = 6.752
 units per year.
 Mann-Kendall
 statistic = 13
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-17

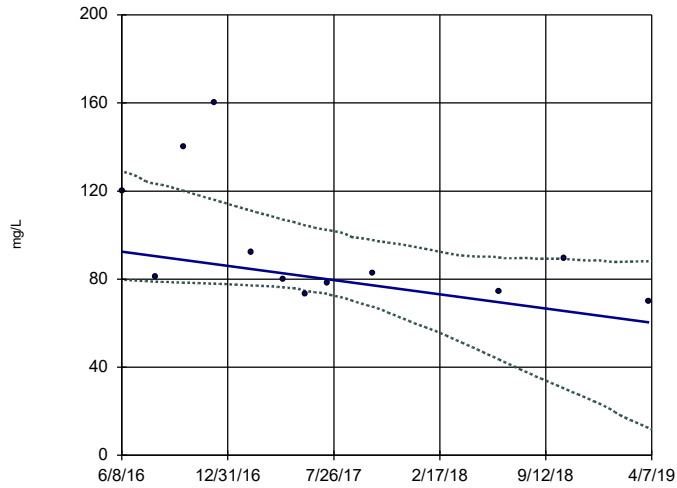


n = 12
 Slope = -8.913
 units per year.
 Mann-Kendall
 statistic = -29
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:18 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-18

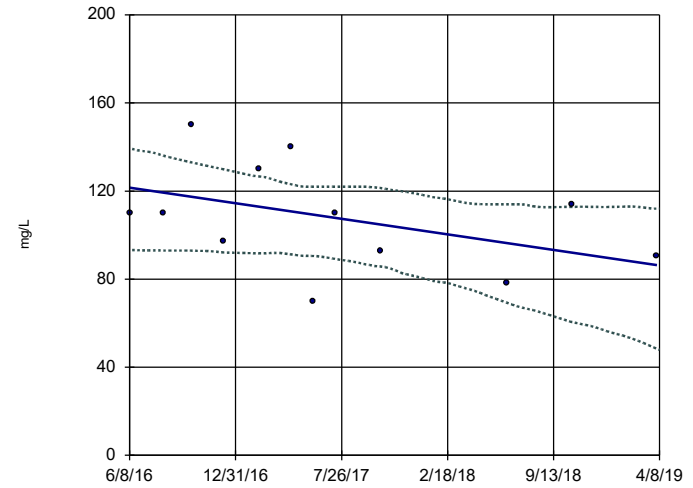


n = 12
 Slope = -11.39
 units per year.
 Mann-Kendall
 statistic = -30
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-19

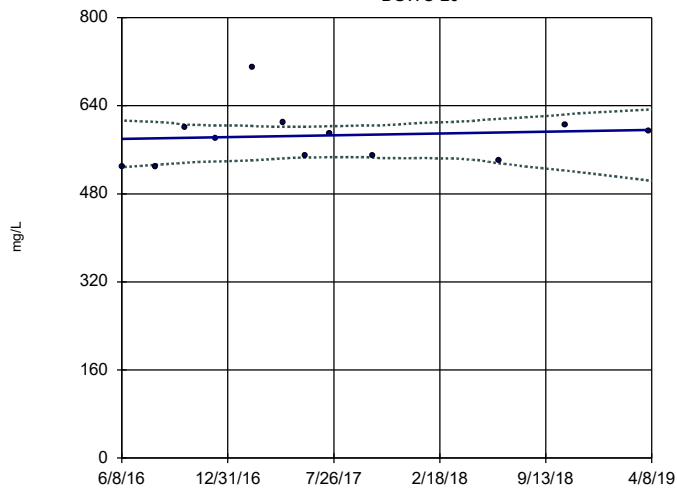


n = 12
 Slope = -12.48
 units per year.
 Mann-Kendall
 statistic = -19
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-20

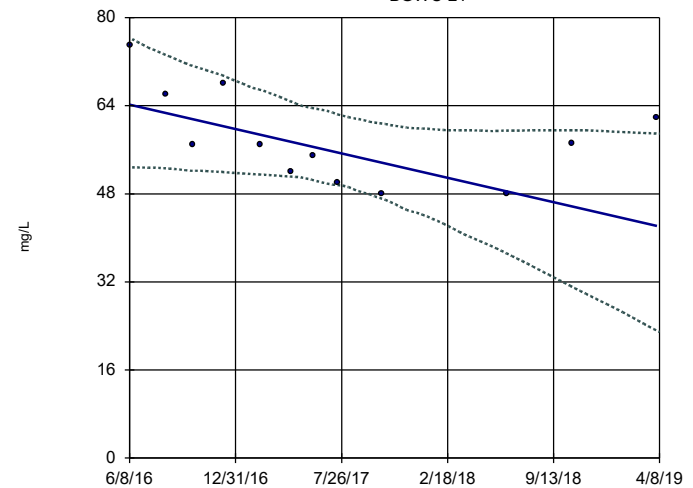


n = 12
 Slope = 5.797
 units per year.
 Mann-Kendall
 statistic = 10
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-21

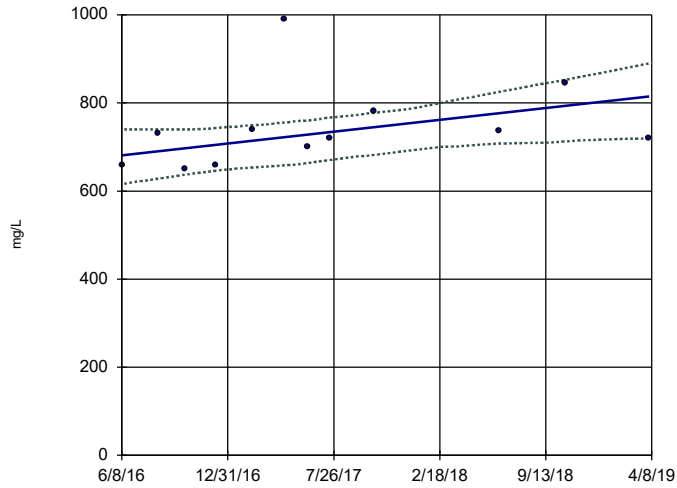


n = 12
 Slope = -7.82
 units per year.
 Mann-Kendall
 statistic = -27
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-22

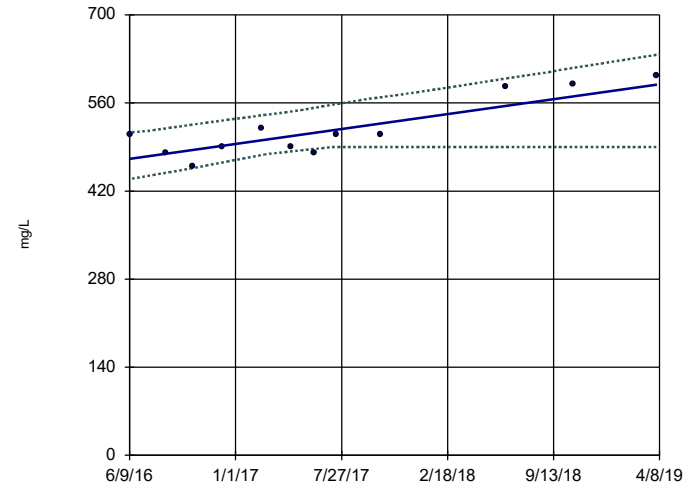


n = 12
 Slope = 47.47
 units per year.
 Mann-Kendall
 statistic = 24
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-23

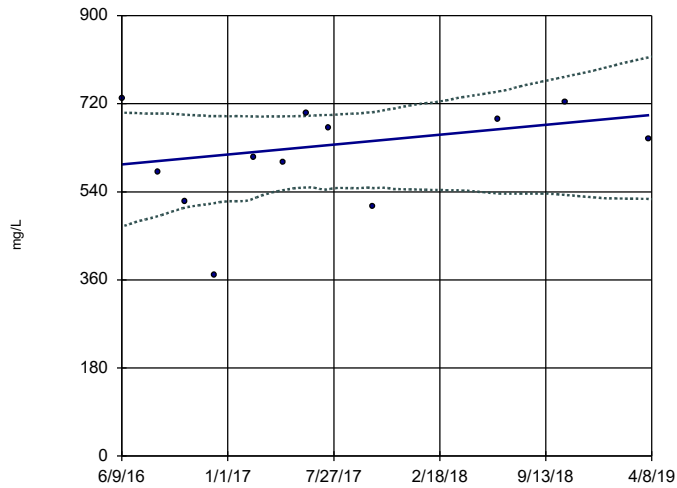


n = 12
 Slope = 41.83
 units per year.
 Mann-Kendall
 statistic = 37
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-24

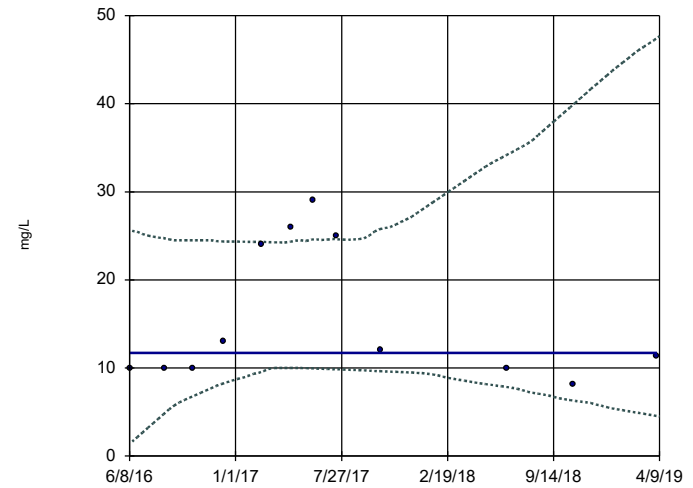


n = 12
 Slope = 35.9
 units per year.
 Mann-Kendall
 statistic = 12
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-25

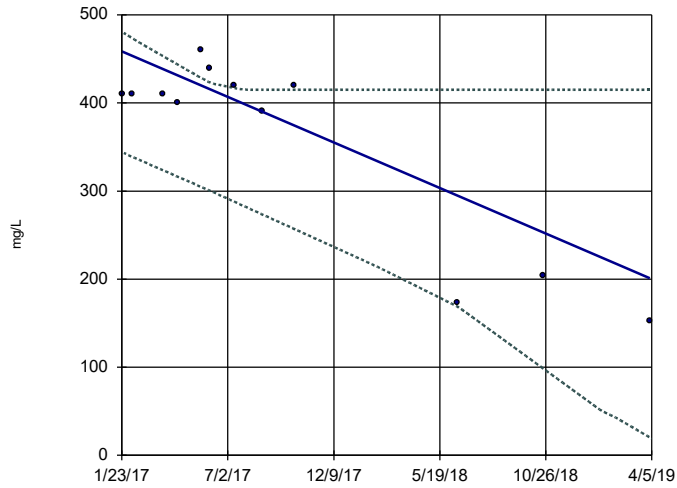


n = 12
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 2
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-30

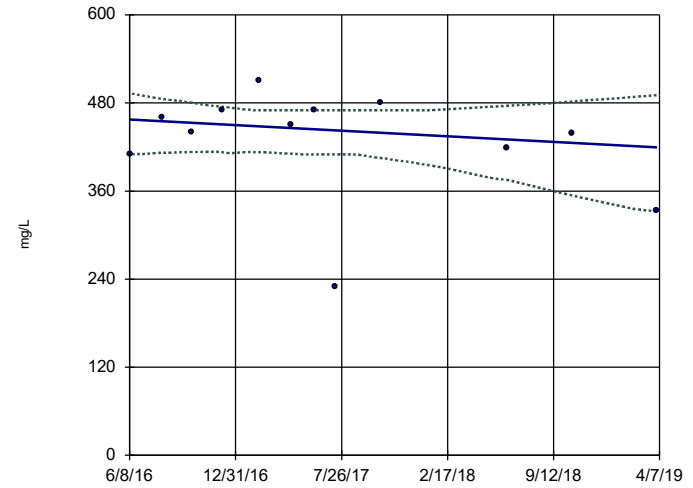


n = 12
 Slope = -117.7
 units per year.
 Mann-Kendall
 statistic = -26
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-7

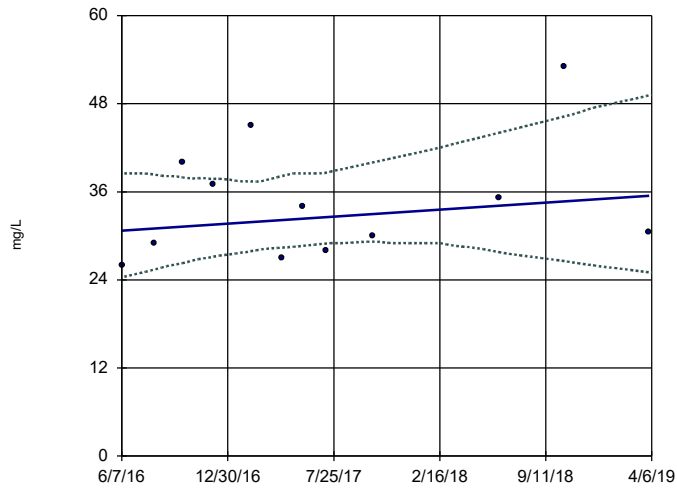


n = 12
 Slope = -13.53
 units per year.
 Mann-Kendall
 statistic = -9
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-8

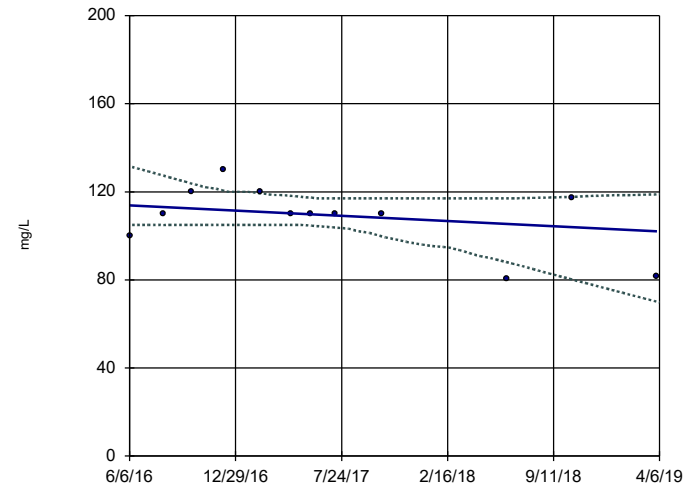


n = 12
 Slope = 1.69
 units per year.
 Mann-Kendall
 statistic = 14
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-9

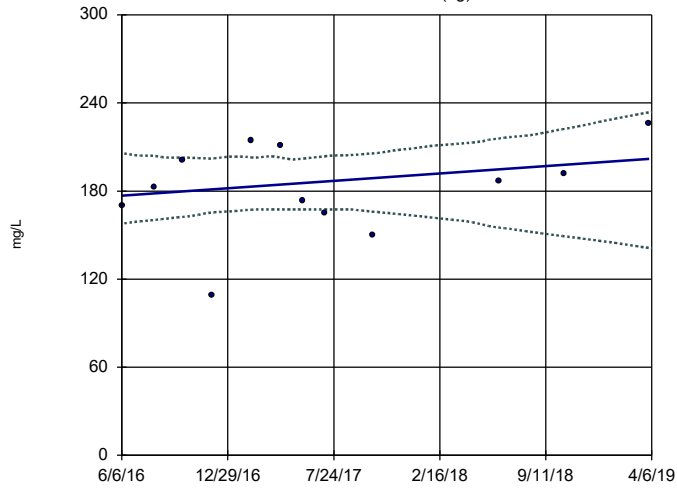


n = 12
 Slope = -4.198
 units per year.
 Mann-Kendall
 statistic = -15
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-2 (bg)

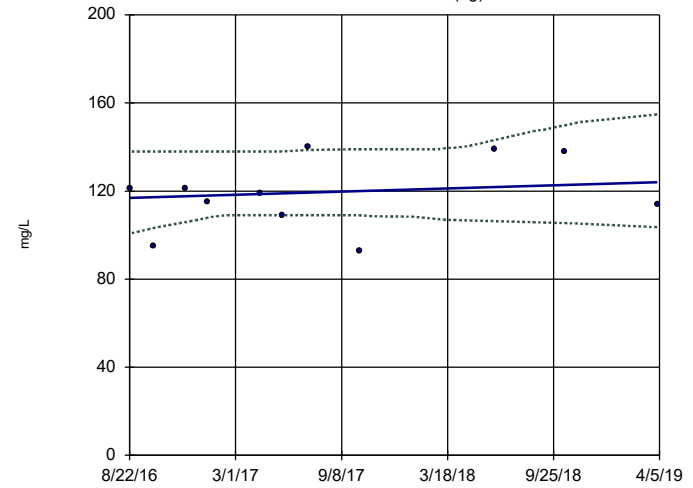


n = 12
 Slope = 8.873
 units per year.
 Mann-Kendall
 statistic = 12
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWA-29 (bg)

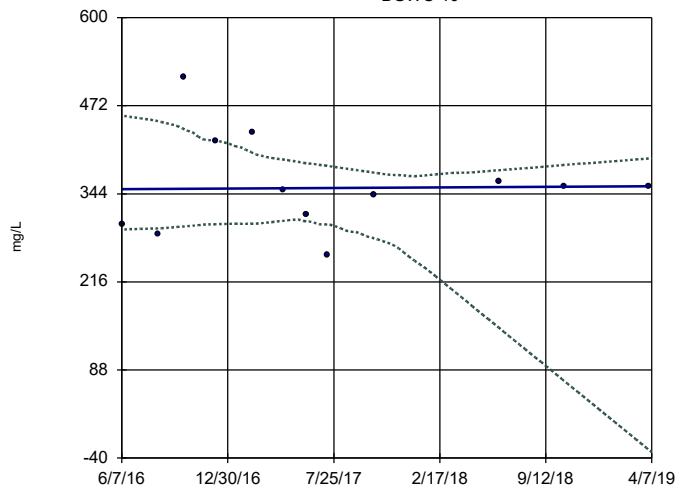


n = 11
 Slope = 2.7
 units per year.
 Mann-Kendall
 statistic = 2
 critical = 27
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-10

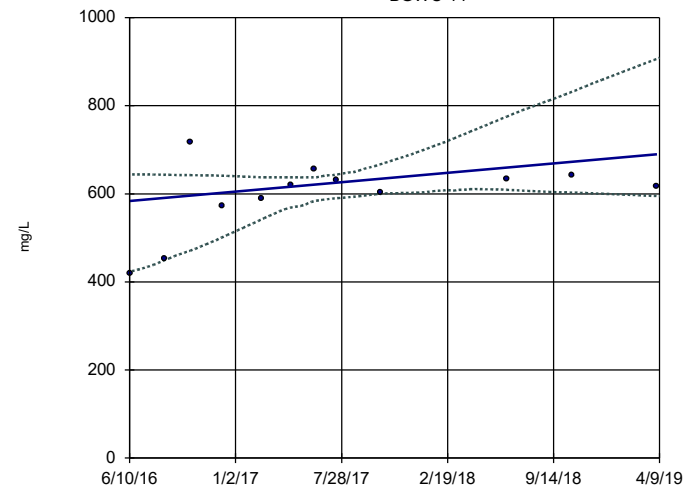


n = 12
 Slope = 1.534
 units per year.
 Mann-Kendall
 statistic = 1
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-14

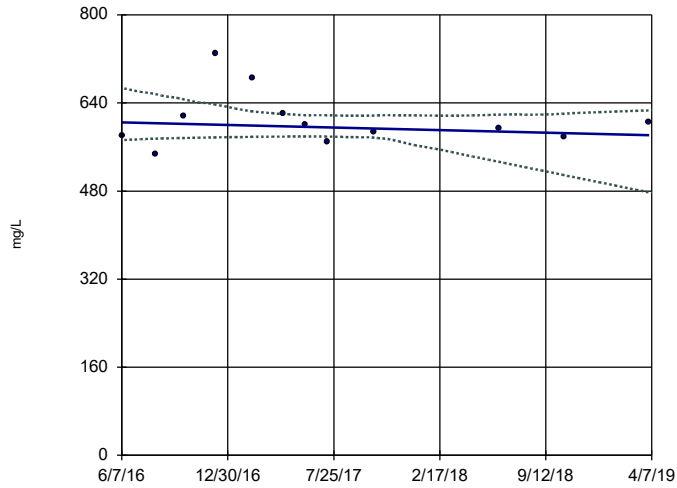


n = 12
 Slope = 37.65
 units per year.
 Mann-Kendall
 statistic = 26
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-16

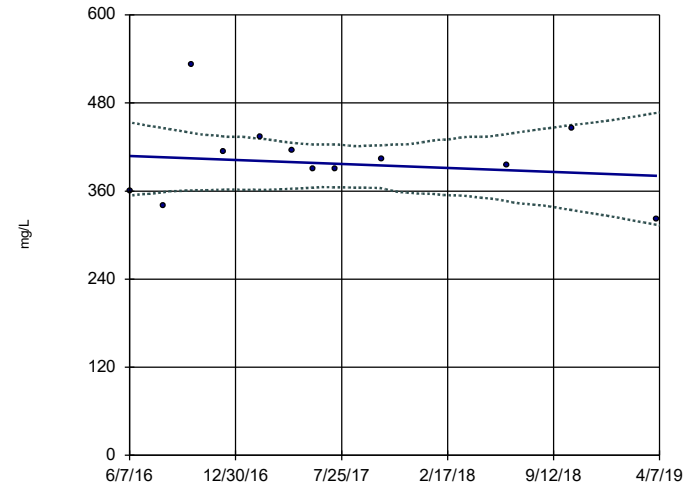


n = 12
 Slope = -8.208
 units per year.
 Mann-Kendall
 statistic = -6
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-17

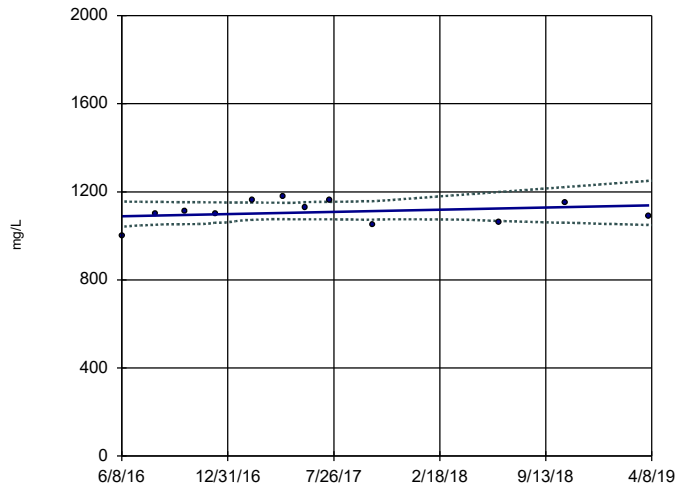


n = 12
 Slope = -9.503
 units per year.
 Mann-Kendall
 statistic = -3
 critical = -30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-20

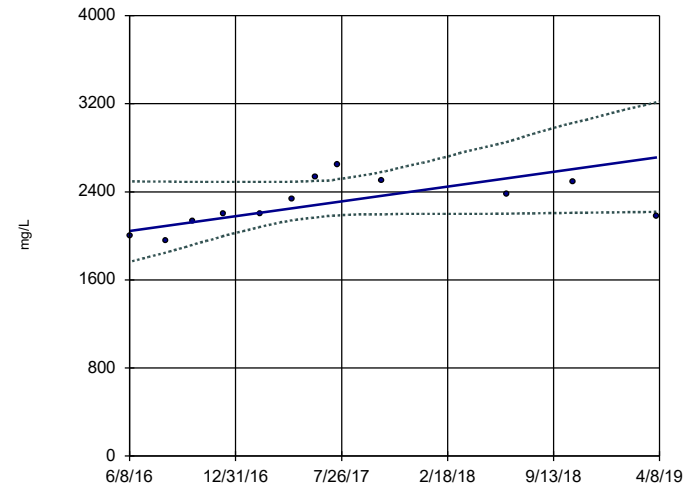


n = 12
 Slope = 17.29
 units per year.
 Mann-Kendall
 statistic = 6
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-22

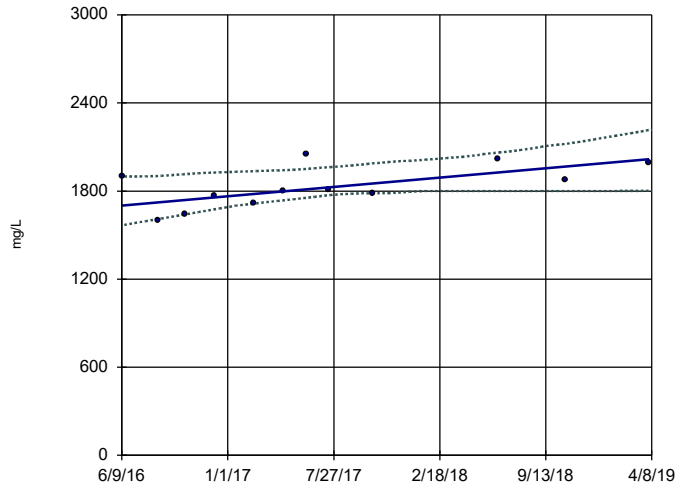


n = 12
 Slope = 236.9
 units per year.
 Mann-Kendall
 statistic = 31
 critical = 30
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-23

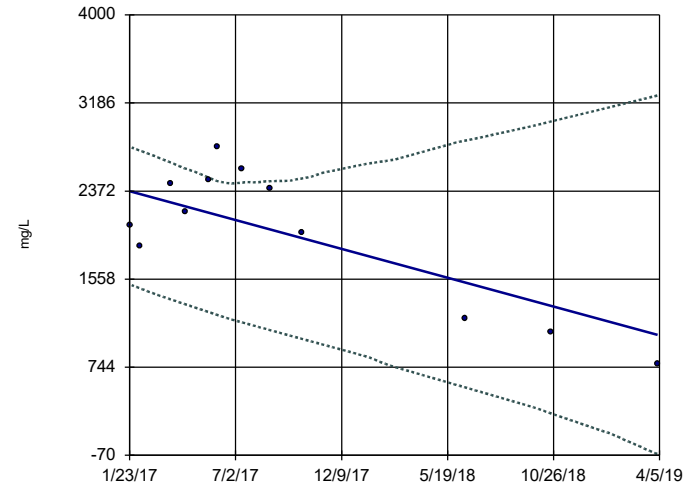


n = 12
 Slope = 111.6 units per year.
 Mann-Kendall statistic = 30
 critical = 30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-30

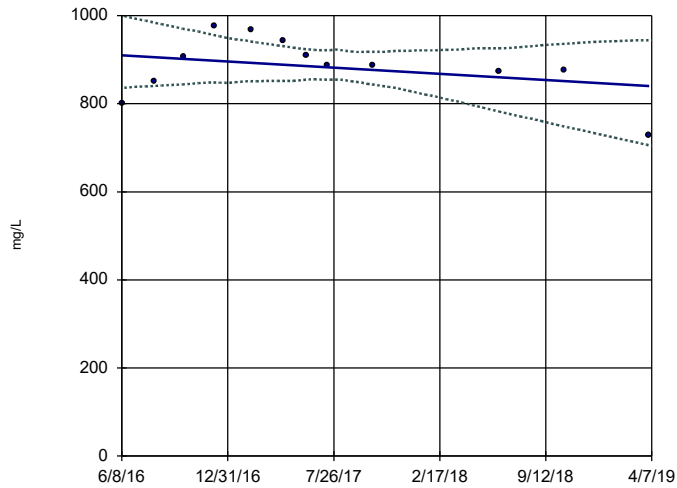


n = 12
 Slope = -606.5 units per year.
 Mann-Kendall statistic = -22
 critical = -30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-7

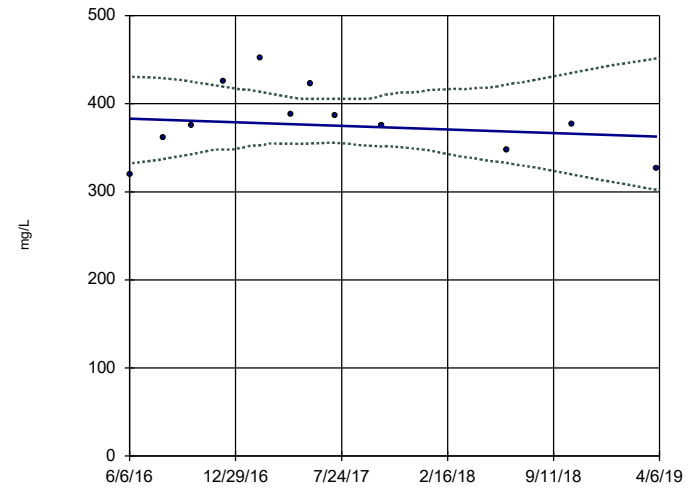


n = 12
 Slope = -24.68 units per year.
 Mann-Kendall statistic = -17
 critical = -30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Sen's Slope and 95% Confidence Band

BGWC-9



n = 12
 Slope = -7.204 units per year.
 Mann-Kendall statistic = -7
 critical = -30
 Trend not significant at 95% confidence level (α = 0.025 per tail).

Constituent: Total Dissolved Solids Analysis Run 7/24/2019 11:19 AM
 Plant Bowen Client: Georgia Power Company Data: Bowen AP-1

Prediction Limit (AM 02) - Significant Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 10:34 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BGWC-10	0.0336	n/a	9/25/2019	0.49	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-12	0.0336	n/a	9/25/2019	1.1	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-14	0.0336	n/a	9/25/2019	0.88	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-16	0.0336	n/a	9/26/2019	1.5	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-17	0.0336	n/a	9/26/2019	2.5	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-18	0.0336	n/a	9/26/2019	1.1	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-19	0.0336	n/a	9/26/2019	0.96	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-20	0.0336	n/a	9/26/2019	4.4	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-22	0.0336	n/a	9/27/2019	16.4	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-23	0.0336	n/a	9/27/2019	12	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-24	0.0336	n/a	9/30/2019	36.8	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-30	0.0336	n/a	9/27/2019	2.4	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-7	0.0336	n/a	9/24/2019	1.6	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-8	0.0336	n/a	9/24/2019	0.06	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-9	0.0336	n/a	9/24/2019	0.51	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Calcium (mg/L)	BGWC-10	49.46	n/a	9/25/2019	58.1	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-12	49.46	n/a	9/25/2019	115	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-14	49.46	n/a	9/25/2019	110	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-16	49.46	n/a	9/26/2019	136	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-17	49.46	n/a	9/26/2019	94.2	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-18	49.46	n/a	9/26/2019	91.7	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-19	49.46	n/a	9/26/2019	80.8	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-20	49.46	n/a	9/26/2019	243	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-22	49.46	n/a	9/27/2019	658	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-23	49.46	n/a	9/27/2019	533	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-24	49.46	n/a	9/30/2019	1050	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-30	49.46	n/a	9/27/2019	103	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-7	49.46	n/a	9/24/2019	151	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-9	49.46	n/a	9/24/2019	57.6	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-10	4.6	n/a	9/25/2019	25.1	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-12	4.6	n/a	9/25/2019	23.6	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-14	4.6	n/a	9/25/2019	31.9	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-16	4.6	n/a	9/26/2019	28.7	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-17	4.6	n/a	9/26/2019	47.1	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-18	4.6	n/a	9/26/2019	60.5	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-19	4.6	n/a	9/26/2019	26	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-20	4.6	n/a	9/26/2019	128	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-21	4.6	n/a	9/30/2019	4.7	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-22	4.6	n/a	9/27/2019	996	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-23	4.6	n/a	9/27/2019	918	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-24	4.6	n/a	9/30/2019	2040	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-25	4.6	n/a	9/30/2019	5.2	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-30	4.6	n/a	9/27/2019	143	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-7	4.6	n/a	9/24/2019	8	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-9	4.6	n/a	9/24/2019	13.2	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-22	0.3	n/a	9/27/2019	1	Yes	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-23	0.3	n/a	9/27/2019	0.54	Yes	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-24	0.3	n/a	9/30/2019	1.2	Yes	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
pH (s.u.)	BGWC-10	8.208	7.474	9/25/2019	7.37	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-12	8.208	7.474	9/25/2019	7.1	Yes	31	0	No	0.0002213	Param Inter 1 of 2

Prediction Limit (AM 02) - Significant Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 10:34 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
pH (s.u.)	BGWC-16	8.208	7.474	9/26/2019	6.7	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-17	8.208	7.474	9/26/2019	7.32	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-18	8.208	7.474	9/26/2019	6.99	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-19	8.208	7.474	9/26/2019	6.55	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-20	8.208	7.474	9/26/2019	7.1	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-22	8.208	7.474	9/27/2019	6.79	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-23	8.208	7.474	9/27/2019	7.02	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-24	8.208	7.474	9/30/2019	6.58	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-25	8.208	7.474	9/30/2019	7.36	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-30	8.208	7.474	9/30/2019	7.2	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-7	8.208	7.474	9/24/2019	6.92	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-9	8.208	7.474	9/24/2019	7.14	Yes	31	0	No	0.0002213	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-10	11.11	n/a	9/25/2019	93.7	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-12	11.11	n/a	9/25/2019	205	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-14	11.11	n/a	9/25/2019	181	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-16	11.11	n/a	9/26/2019	288	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-17	11.11	n/a	9/26/2019	219	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-18	11.11	n/a	9/26/2019	114	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-19	11.11	n/a	9/26/2019	130	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-20	11.11	n/a	9/26/2019	498	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-21	11.11	n/a	9/30/2019	54.5	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-22	11.11	n/a	9/27/2019	905	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-23	11.11	n/a	9/27/2019	721	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-24	11.11	n/a	9/30/2019	758	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-30	11.11	n/a	9/27/2019	51.7	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-7	11.11	n/a	9/24/2019	266	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-8	11.11	n/a	9/24/2019	36.5	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-9	11.11	n/a	9/24/2019	89	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-10	245.5	n/a	9/25/2019	388	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-12	245.5	n/a	9/25/2019	690	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-14	245.5	n/a	9/25/2019	637	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-16	245.5	n/a	9/26/2019	688	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-17	245.5	n/a	9/26/2019	550	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-18	245.5	n/a	9/26/2019	470	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-19	245.5	n/a	9/26/2019	428	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-20	245.5	n/a	9/26/2019	1210	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-21	245.5	n/a	9/30/2019	256	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-22	245.5	n/a	9/27/2019	3260	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-23	245.5	n/a	9/27/2019	2540	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-24	245.5	n/a	9/30/2019	4430	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-30	245.5	n/a	9/27/2019	629	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-7	245.5	n/a	9/24/2019	733	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-9	245.5	n/a	9/24/2019	325	Yes	25	0	No	0.0004426	Param Inter 1 of 2

Prediction Limit (AM 02) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 10:34 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BGWC-10	0.0336	n/a	9/25/2019	0.49	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-12	0.0336	n/a	9/25/2019	1.1	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-14	0.0336	n/a	9/25/2019	0.88	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-16	0.0336	n/a	9/26/2019	1.5	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-17	0.0336	n/a	9/26/2019	2.5	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-18	0.0336	n/a	9/26/2019	1.1	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-19	0.0336	n/a	9/26/2019	0.96	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-20	0.0336	n/a	9/26/2019	4.4	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-21	0.0336	n/a	9/30/2019	0.04	No	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-22	0.0336	n/a	9/27/2019	16.4	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-23	0.0336	n/a	9/27/2019	12	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-24	0.0336	n/a	9/30/2019	36.8	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-25	0.0336	n/a	9/30/2019	0.038	No	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-30	0.0336	n/a	9/27/2019	2.4	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-7	0.0336	n/a	9/24/2019	1.6	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-8	0.0336	n/a	9/24/2019	0.06	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Boron (mg/L)	BGWC-9	0.0336	n/a	9/24/2019	0.51	Yes	27	33.33	n/a	0.002162	NP Inter (normality) 1 of 2
Calcium (mg/L)	BGWC-10	49.46	n/a	9/25/2019	58.1	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-12	49.46	n/a	9/25/2019	115	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-14	49.46	n/a	9/25/2019	110	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-16	49.46	n/a	9/26/2019	136	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-17	49.46	n/a	9/26/2019	94.2	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-18	49.46	n/a	9/26/2019	91.7	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-19	49.46	n/a	9/26/2019	80.8	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-20	49.46	n/a	9/26/2019	243	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-21	49.46	n/a	9/30/2019	43.2	No	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-22	49.46	n/a	9/27/2019	658	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-23	49.46	n/a	9/27/2019	533	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-24	49.46	n/a	9/30/2019	1050	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-25	49.46	n/a	9/30/2019	47.8	No	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-30	49.46	n/a	9/27/2019	103	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-7	49.46	n/a	9/24/2019	151	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-8	49.46	n/a	9/24/2019	42.4	No	27	0	No	0.0004426	Param Inter 1 of 2
Calcium (mg/L)	BGWC-9	49.46	n/a	9/24/2019	57.6	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-10	4.6	n/a	9/25/2019	25.1	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-12	4.6	n/a	9/25/2019	23.6	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-14	4.6	n/a	9/25/2019	31.9	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-16	4.6	n/a	9/26/2019	28.7	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-17	4.6	n/a	9/26/2019	47.1	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-18	4.6	n/a	9/26/2019	60.5	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-19	4.6	n/a	9/26/2019	26	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-20	4.6	n/a	9/26/2019	128	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-21	4.6	n/a	9/30/2019	4.7	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-22	4.6	n/a	9/27/2019	996	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-23	4.6	n/a	9/27/2019	918	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-24	4.6	n/a	9/30/2019	2040	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-25	4.6	n/a	9/30/2019	5.2	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-30	4.6	n/a	9/27/2019	143	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-7	4.6	n/a	9/24/2019	8	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Chloride (mg/L)	BGWC-8	4.6	n/a	9/24/2019	1.5	No	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2

Prediction Limit (AM 02) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 10:34 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Chloride (mg/L)	BGWC-9	4.6	n/a	9/24/2019	13.2	Yes	27	0	sqrt(x)	0.0004426	Param Inter 1 of 2
Fluoride (mg/L)	BGWC-10	0.3	n/a	9/25/2019	0.075	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-12	0.3	n/a	9/25/2019	0.13	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-14	0.3	n/a	9/25/2019	0.11	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-16	0.3	n/a	9/26/2019	0.3ND	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-17	0.3	n/a	9/26/2019	0.071	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-18	0.3	n/a	9/26/2019	0.052	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-19	0.3	n/a	9/26/2019	0.3ND	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-20	0.3	n/a	9/26/2019	0.3ND	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-21	0.3	n/a	9/30/2019	0.066	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-22	0.3	n/a	9/27/2019	1	Yes	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-23	0.3	n/a	9/27/2019	0.54	Yes	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-24	0.3	n/a	9/30/2019	1.2	Yes	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-25	0.3	n/a	9/30/2019	0.065	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-30	0.3	n/a	9/27/2019	0.13	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-7	0.3	n/a	9/24/2019	0.12	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-8	0.3	n/a	9/24/2019	0.3ND	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BGWC-9	0.3	n/a	9/24/2019	0.096	No	31	32.26	n/a	0.001696	NP Inter (normality) 1 of 2
pH (s.u.)	BGWC-10	8.208	7.474	9/25/2019	7.37	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-12	8.208	7.474	9/25/2019	7.1	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-14	8.208	7.474	9/25/2019	7.74	No	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-16	8.208	7.474	9/26/2019	6.7	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-17	8.208	7.474	9/26/2019	7.32	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-18	8.208	7.474	9/26/2019	6.99	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-19	8.208	7.474	9/26/2019	6.55	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-20	8.208	7.474	9/26/2019	7.1	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-21	8.208	7.474	9/30/2019	7.7	No	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-22	8.208	7.474	9/27/2019	6.79	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-23	8.208	7.474	9/27/2019	7.02	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-24	8.208	7.474	9/30/2019	6.58	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-25	8.208	7.474	9/30/2019	7.36	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-30	8.208	7.474	9/30/2019	7.2	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-7	8.208	7.474	9/24/2019	6.92	Yes	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-8	8.208	7.474	9/24/2019	7.53	No	31	0	No	0.0002213	Param Inter 1 of 2
pH (s.u.)	BGWC-9	8.208	7.474	9/24/2019	7.14	Yes	31	0	No	0.0002213	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-10	11.11	n/a	9/25/2019	93.7	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-12	11.11	n/a	9/25/2019	205	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-14	11.11	n/a	9/25/2019	181	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-16	11.11	n/a	9/26/2019	288	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-17	11.11	n/a	9/26/2019	219	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-18	11.11	n/a	9/26/2019	114	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-19	11.11	n/a	9/26/2019	130	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-20	11.11	n/a	9/26/2019	498	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-21	11.11	n/a	9/30/2019	54.5	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-22	11.11	n/a	9/27/2019	905	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-23	11.11	n/a	9/27/2019	721	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-24	11.11	n/a	9/30/2019	758	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-25	11.11	n/a	9/30/2019	10.7	No	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-30	11.11	n/a	9/27/2019	51.7	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-7	11.11	n/a	9/24/2019	266	Yes	27	0	No	0.0004426	Param Inter 1 of 2

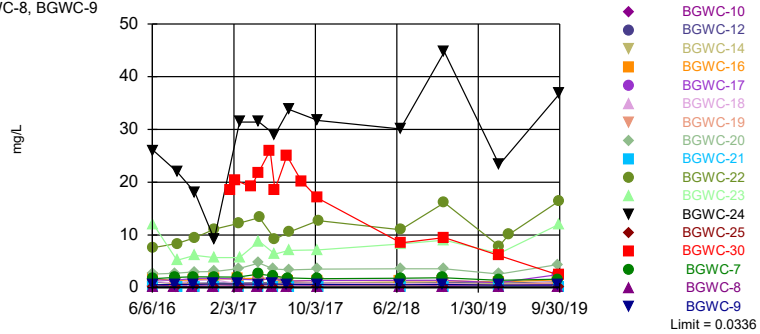
Prediction Limit (AM 02) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 10:34 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	BGWC-8	11.11	n/a	9/24/2019	36.5	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Sulfate (mg/L)	BGWC-9	11.11	n/a	9/24/2019	89	Yes	27	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-10	245.5	n/a	9/25/2019	388	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-12	245.5	n/a	9/25/2019	690	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-14	245.5	n/a	9/25/2019	637	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-16	245.5	n/a	9/26/2019	688	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-17	245.5	n/a	9/26/2019	550	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-18	245.5	n/a	9/26/2019	470	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-19	245.5	n/a	9/26/2019	428	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-20	245.5	n/a	9/26/2019	1210	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-21	245.5	n/a	9/30/2019	256	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-22	245.5	n/a	9/27/2019	3260	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-23	245.5	n/a	9/27/2019	2540	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-24	245.5	n/a	9/30/2019	4430	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-25	245.5	n/a	9/30/2019	220	No	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-30	245.5	n/a	9/27/2019	629	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-7	245.5	n/a	9/24/2019	733	Yes	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-8	245.5	n/a	9/24/2019	193	No	25	0	No	0.0004426	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	BGWC-9	245.5	n/a	9/24/2019	325	Yes	25	0	No	0.0004426	Param Inter 1 of 2

Exceeds Limit: BGWC-10, BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-22, BGWC-23, BGWC-24, BGWC-30, BGWC-7, BGWC-8, BGWC-9

Prediction Limit
Interwell Non-parametric

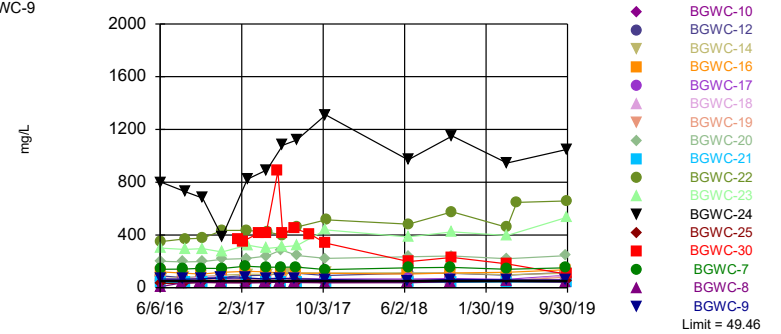


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. 33.33% NDs. Annual per-constituent alpha = 0.07093. Individual comparison alpha = 0.002162 (1 of 2). Comparing 17 points to limit.

Constituent: Boron Analysis Run 12/11/2019 10:28 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-22, BGWC-23, BGWC-24, BGWC-30, BGWC-7, BGWC-9

Prediction Limit
Interwell Parametric

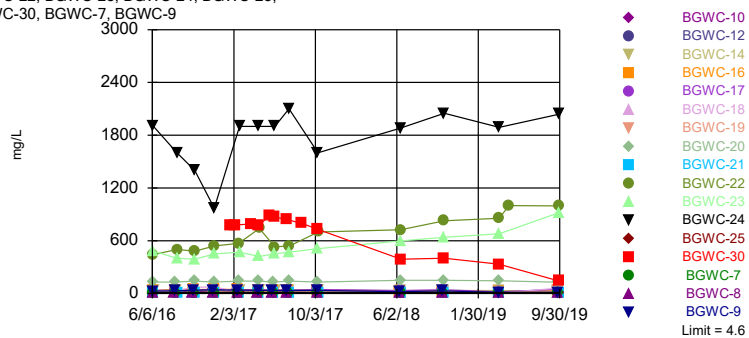


Background Data Summary: Mean=27.79, Std. Dev.=9.371, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9411, critical = 0.894. Kappa = 2.313 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Calcium Analysis Run 12/11/2019 10:28 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-24, BGWC-25, BGWC-30, BGWC-7, BGWC-9

Prediction Limit
Interwell Parametric

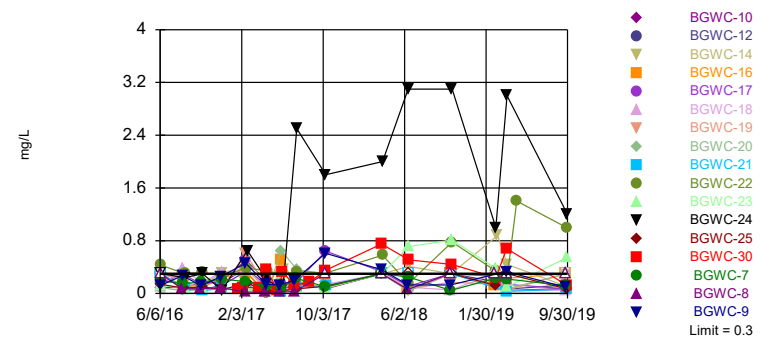


Background Data Summary (based on square root transformation): Mean=1.506, Std. Dev.=0.2763, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9099, critical = 0.894. Kappa = 2.313 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Chloride Analysis Run 12/11/2019 10:28 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Exceeds Limit: BGWC-22, BGWC-23, BGWC-24

Prediction Limit
Interwell Non-parametric

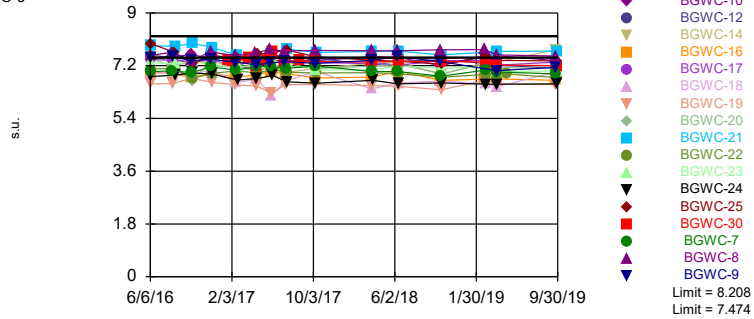


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 31 background values. 32.26% NDs. Annual per-constituent alpha = 0.05609. Individual comparison alpha = 0.001696 (1 of 2). Comparing 17 points to limit.

Constituent: Fluoride Analysis Run 12/11/2019 10:28 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-12, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-22, BGWC-23, BGWC-24, BGWC-25, BGWC-30, BGWC-7, BGWC-9

Prediction Limit
Interwell Parametric

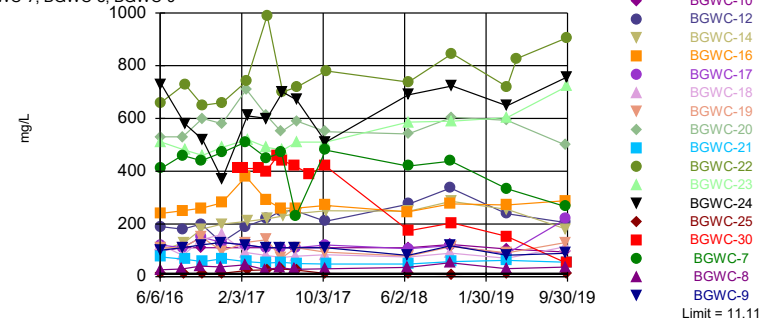


Background Data Summary: Mean=7.841, Std. Dev.=0.1617, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9531, critical = 0.902. Kappa = 2.271 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0002213. Comparing 17 points to limit.

Constituent: pH Analysis Run 12/11/2019 10:28 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-24, BGWC-30, BGWC-7, BGWC-8, BGWC-9

Prediction Limit
Interwell Parametric

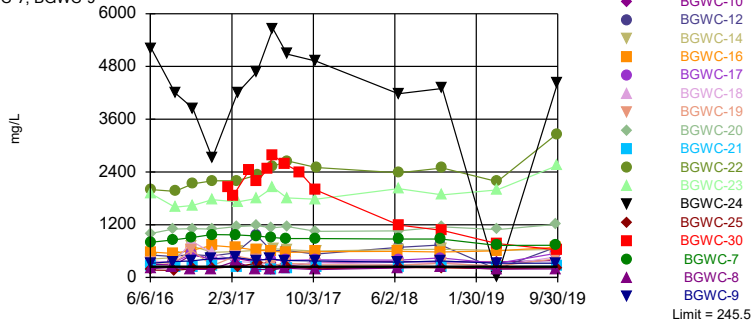


Background Data Summary: Mean=6.393, Std. Dev.=2.042, n=27. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9495, critical = 0.894. Kappa = 2.313 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Sulfate Analysis Run 12/11/2019 10:28 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Exceeds Limit: BGWC-10, BGWC-12, BGWC-14, BGWC-16, BGWC-17, BGWC-18, BGWC-19, BGWC-20, BGWC-21, BGWC-22, BGWC-23, BGWC-24, BGWC-30, BGWC-7, BGWC-9

Prediction Limit
Interwell Parametric



Background Data Summary: Mean=151.7, Std. Dev.=40.18, n=25. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9347, critical = 0.888. Kappa = 2.335 (c=7, w=17, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004426. Comparing 17 points to limit.

Constituent: Total Dissolved Solids Analysis Run 12/11/2019 10:28 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Trend Test (AM 02) - Significant Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 5:24 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)	BGWA-2 (bg)	-0.003435	-44	-37	Yes	14	14.29	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-14	0.06394	47	37	Yes	14	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-21	-0.03246	-47	-34	Yes	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-30	-6.84	-41	-34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-10	2.485	50	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-12	12.19	53	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-14	12.45	55	37	Yes	14	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-20	14.46	38	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-22	89.35	70	37	Yes	14	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-23	61.03	52	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-24	159	40	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-30	-118	-42	-34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-9	-3.209	-35	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWA-29 (bg)	-0.2266	-39	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-10	1.939	57	34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-12	-6.144	-69	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-16	-7.798	-47	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-21	-1.25	-54	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-22	163.1	72	37	Yes	14	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-23	112	54	34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-30	-252.1	-39	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-9	-5.269	-35	-34	Yes	13	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-23	0.1214	49	41	Yes	15	13.33	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-24	0.6616	51	41	Yes	15	6.667	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-12	-0.08435	-47	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-16	-0.07358	-44	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-22	-0.07332	-60	-45	Yes	16	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-23	-0.08481	-60	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-24	-0.1123	-73	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-25	-0.1062	-44	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-30	-0.04692	-42	-41	Yes	15	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWA-2 (bg)	1.415	40	37	Yes	14	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-12	30.48	38	34	Yes	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-14	54.76	56	34	Yes	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-22	59.9	43	37	Yes	14	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-23	51.93	49	34	Yes	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-30	-128.4	-38	-34	Yes	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-22	355	43	34	Yes	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-23	145.4	42	34	Yes	13	0	n/a	n/a	0.05	NP

Trend Test (AM 02) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 5:24 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)	BGWA-2 (bg)	-0.003435	-44	-37	Yes	14	14.29	n/a	n/a	0.05	NP
Boron (mg/L)	BGWA-29 (bg)	-0.0003748	-23	-34	No	13	53.85	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-10	-0.000337	-2	-34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-12	0.04146	20	34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-14	0.06394	47	37	Yes	14	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-16	-0.1119	-29	-34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-17	-0.09492	-19	-34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-18	-0.09715	-22	-34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-19	0.002661	3	34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-20	0.4302	30	34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-21	-0.03246	-47	-34	Yes	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-22	1.766	33	37	No	14	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-23	1.405	32	34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-24	4.953	33	34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-25	0.0004087	2	34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-30	-6.84	-41	-34	Yes	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-7	-0.126	-26	-34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-8	-0.006228	-12	-34	No	13	0	n/a	n/a	0.05	NP
Boron (mg/L)	BGWC-9	-0.04287	-26	-34	No	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWA-2 (bg)	1.76	31	37	No	14	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWA-29 (bg)	-0.3679	-13	-34	No	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-10	2.485	50	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-12	12.19	53	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-14	12.45	55	37	Yes	14	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-16 (mg/L)	0	2	34	No	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-17	1.85	16	34	No	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-18	-2.565	-10	-34	No	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-19	0.7962	4	34	No	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-20	14.46	38	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-22	89.35	70	37	Yes	14	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-23	61.03	52	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-24	159	40	34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-30	-118	-42	-34	Yes	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-7	2.205	8	34	No	13	0	n/a	n/a	0.05	NP
Calcium (mg/L)	BGWC-9	-3.209	-35	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWA-2 (bg)	0.3659	20	37	No	14	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWA-29 (bg)	-0.2266	-39	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-10	1.939	57	34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-12	-6.144	-69	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-14	-1.072	-27	-34	No	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-16	-7.798	-47	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-17	2.581	16	34	No	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-18	-8.685	-34	-34	No	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-19	-5.228	-31	-34	No	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-20	0.8066	16	34	No	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-21	-1.25	-54	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-22	163.1	72	37	Yes	14	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-23	112	54	34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-24	94.63	21	34	No	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-25	-0.155	-7	-34	No	13	0	n/a	n/a	0.05	NP

Trend Test (AM 02) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 5:24 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	BGWC-30	-252.1	-39	-34	Yes	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-7	-0.04966	-18	-34	No	13	0	n/a	n/a	0.05	NP
Chloride (mg/L)	BGWC-9	-5.269	-35	-34	Yes	13	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWA-2 (bg)	0	-7	-45	No	16	18.75	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWA-29 (bg)	0.08421	39	41	No	15	46.67	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-22	0.05792	23	45	No	16	0	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-23	0.1214	49	41	Yes	15	13.33	n/a	n/a	0.05	NP
Fluoride (mg/L)	BGWC-24	0.6616	51	41	Yes	15	6.667	n/a	n/a	0.05	NP
pH (s.u.)	BGWA-2 (bg)	-0.001832	-3	-45	No	16	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWA-29 (bg)	0.01407	6	41	No	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-10	-0.01251	-13	-41	No	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-12	-0.08435	-47	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-16	-0.07358	-44	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-17	-0.02239	-27	-41	No	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-18	-0.1182	-31	-41	No	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-19	-0.0271	-23	-41	No	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-20	-0.01931	-9	-41	No	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-22	-0.07332	-60	-45	Yes	16	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-23	-0.08481	-60	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-24	-0.1123	-73	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-25	-0.1062	-44	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-30	-0.04692	-42	-41	Yes	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-7	-0.02427	-20	-41	No	15	0	n/a	n/a	0.05	NP
pH (s.u.)	BGWC-9	-0.08022	-35	-37	No	14	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWA-2 (bg)	1.415	40	37	Yes	14	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWA-29 (bg)	0.05719	3	34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-10	0	-2	-34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-12	30.48	38	34	Yes	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-14	54.76	56	34	Yes	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-16	8.759	21	34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-17	-2.82	-17	-34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-18	-7.057	-24	-34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-19	-5.737	-12	-34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-20	-1.412	-2	-34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-21	-5.993	-31	-34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-22	59.9	43	37	Yes	14	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-23	51.93	49	34	Yes	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-24 (mg/L)	52.38	24	34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-30	-128.4	-38	-34	Yes	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-7	-26.93	-19	-34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-8	1.69	18	34	No	13	0	n/a	n/a	0.05	NP
Sulfate (mg/L)	BGWC-9	-7.79	-23	-34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWA-2 (bg)	5.606	12	34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWA-29 (bg)	1.909	7	30	No	12	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-10	9.693	7	34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-12	73.9	30	34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-14	32.75	32	34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-16	3.788	4	34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-17	6.464	9	34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-18	-40.22	-24	-34	No	13	0	n/a	n/a	0.05	NP

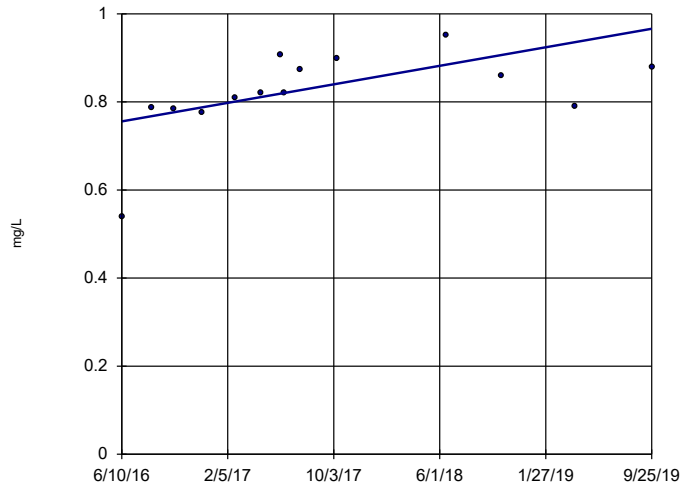
Trend Test (AM 02) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 5:24 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>
Total Dissolved Solids (mg/L)	BGWC-19	-23.99	-22	-34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-20	26.88	18	34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-21	-1.432	-8	-34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-22	355	43	34	Yes	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-23	145.4	42	34	Yes	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-24	-58.67	-5	-34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-30	-629.5	-34	-34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-7	-39.63	-27	-34	No	13	0	n/a	n/a	0.05	NP
Total Dissolved Solids (mg/L)	BGWC-9	-14.94	-17	-34	No	13	0	n/a	n/a	0.05	NP

Sen's Slope Estimator

BGWC-14

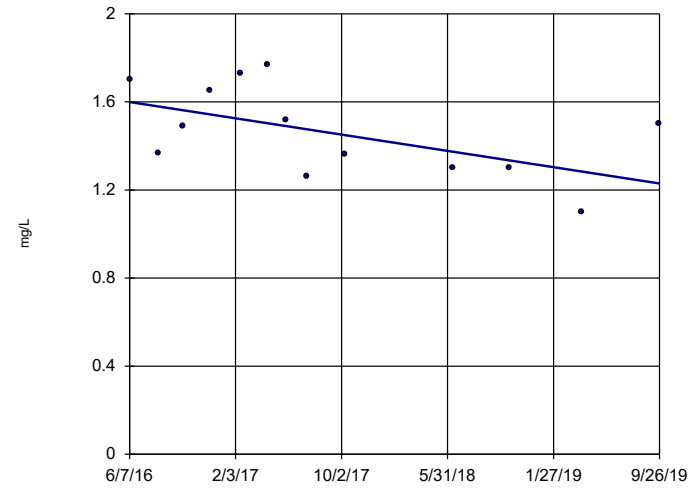


n = 14
 Slope = 0.06394
 units per year.
 Mann-Kendall
 statistic = 47
 critical = 37
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-16

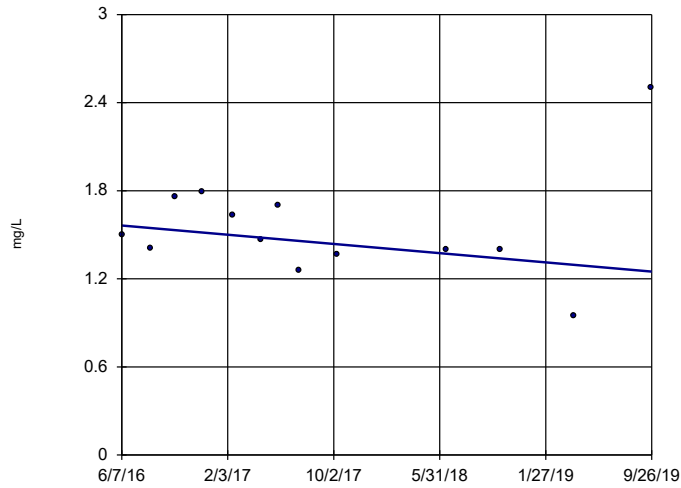


n = 13
 Slope = -0.1119
 units per year.
 Mann-Kendall
 statistic = -29
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-17

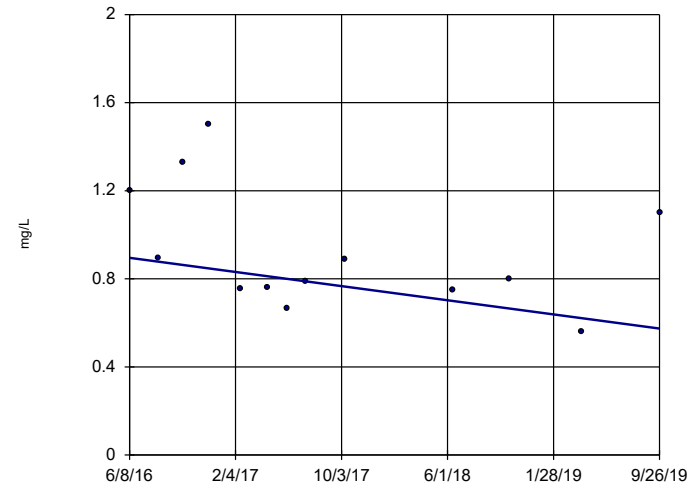


n = 13
 Slope = -0.09492
 units per year.
 Mann-Kendall
 statistic = -19
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

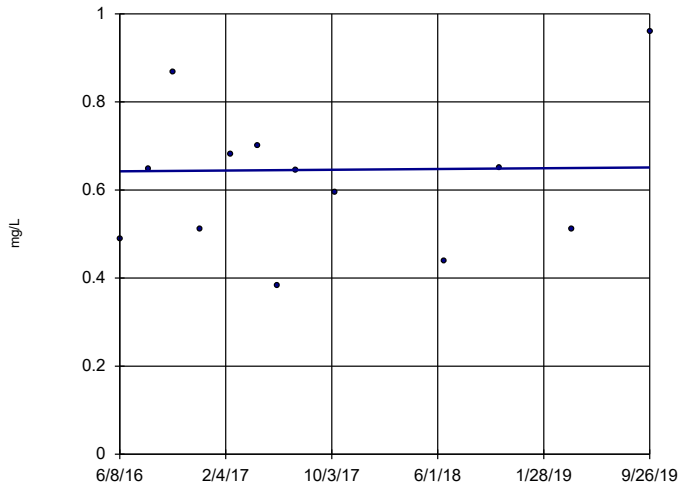
BGWC-18



n = 13
 Slope = -0.09715
 units per year.
 Mann-Kendall
 statistic = -22
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

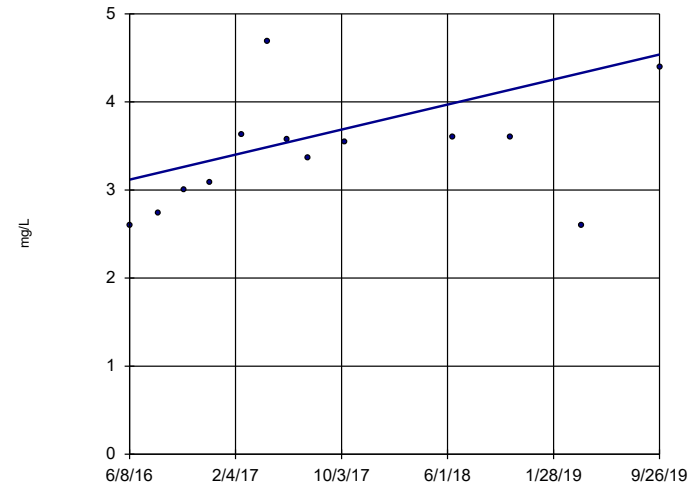
Sen's Slope Estimator
BGWC-19



n = 13
Slope = 0.002661 units per year.
Mann-Kendall statistic = 3
critical = 34
Trend not significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

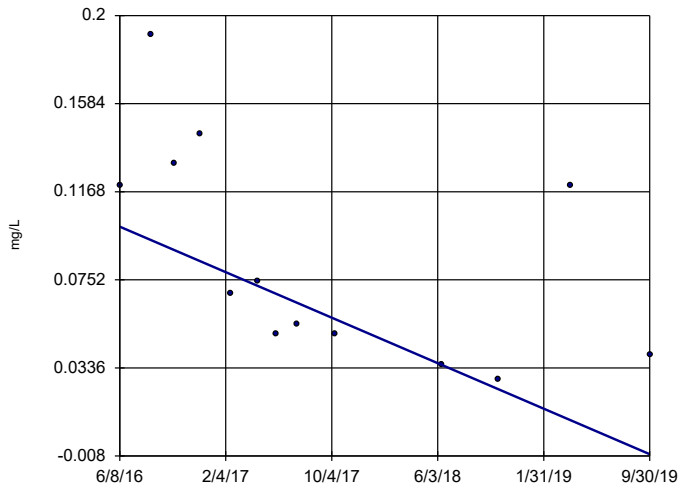
Sen's Slope Estimator
BGWC-20



n = 13
Slope = 0.4302 units per year.
Mann-Kendall statistic = 30
critical = 34
Trend not significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

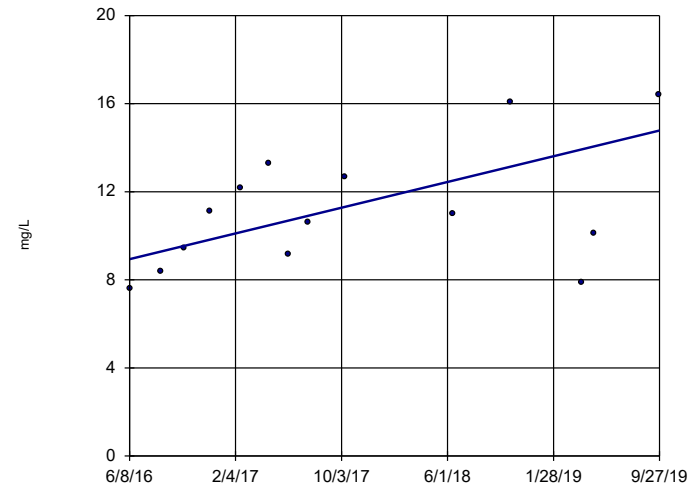
Sen's Slope Estimator
BGWC-21



n = 13
Slope = -0.03246 units per year.
Mann-Kendall statistic = -47
critical = -34
Decreasing trend significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

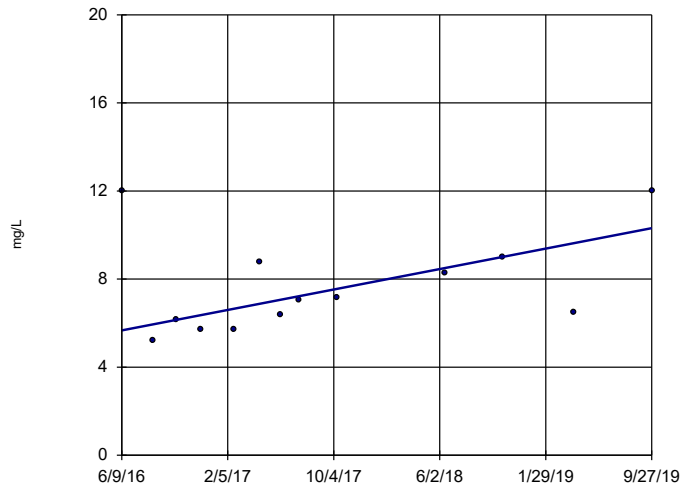
Sen's Slope Estimator
BGWC-22



n = 14
Slope = 1.766 units per year.
Mann-Kendall statistic = 33
critical = 37
Trend not significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

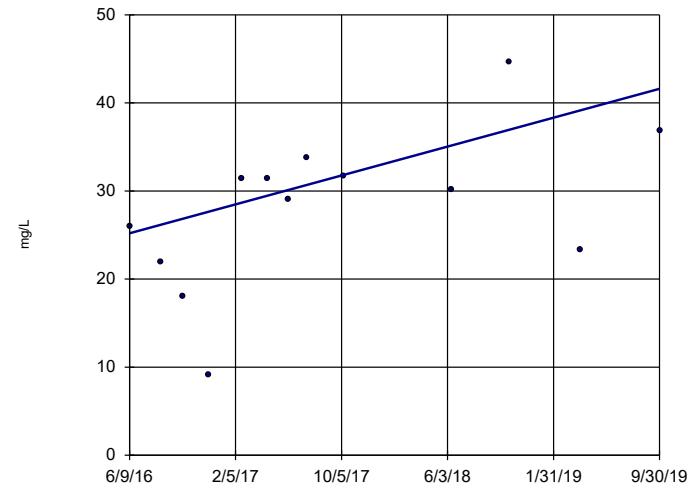
Sen's Slope Estimator BGWC-23



n = 13
Slope = 1.405
units per year.
Mann-Kendall
statistic = 32
critical = 34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

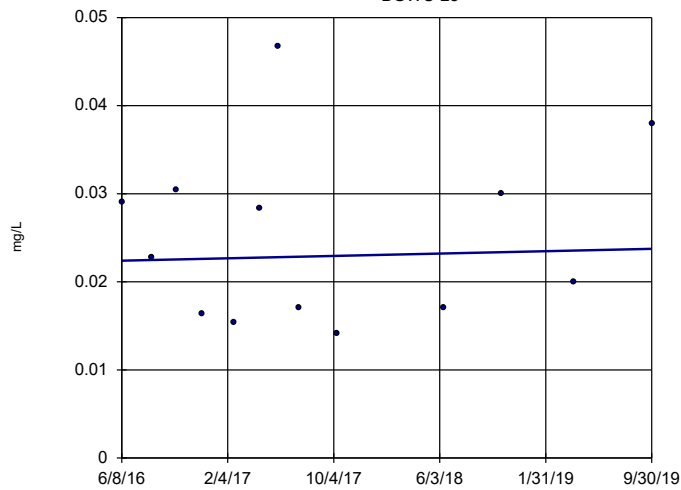
Sen's Slope Estimator BGWC-24



n = 13
Slope = 4.953
units per year.
Mann-Kendall
statistic = 33
critical = 34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

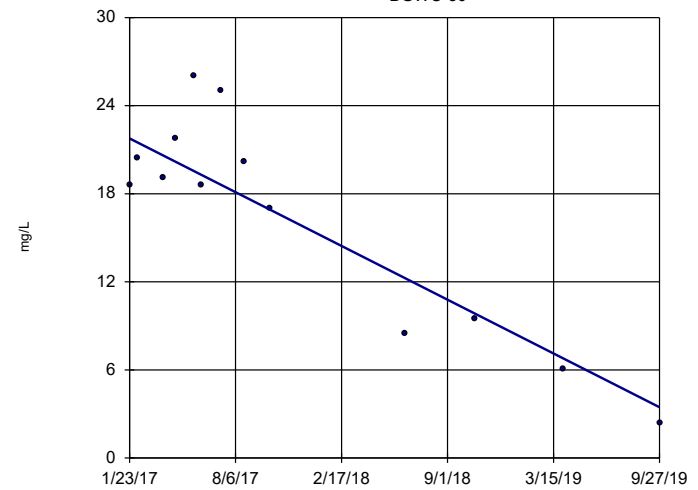
Sen's Slope Estimator BGWC-25



n = 13
Slope = 0.0004087
units per year.
Mann-Kendall
statistic = 2
critical = 34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

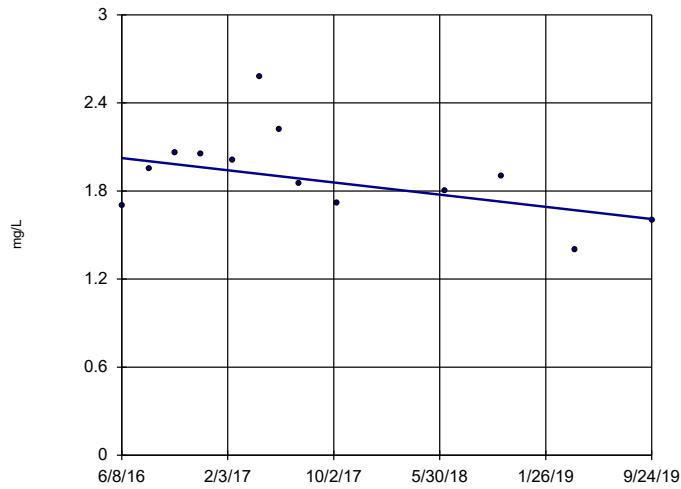
Sen's Slope Estimator BGWC-30



n = 13
Slope = -6.84
units per year.
Mann-Kendall
statistic = -41
critical = -34
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

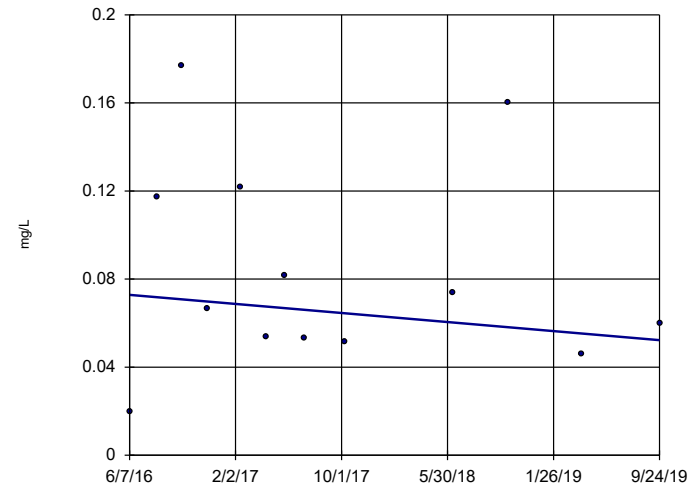
Sen's Slope Estimator
BGWC-7



n = 13
Slope = -0.126
units per year.
Mann-Kendall
statistic = -26
critical = -34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

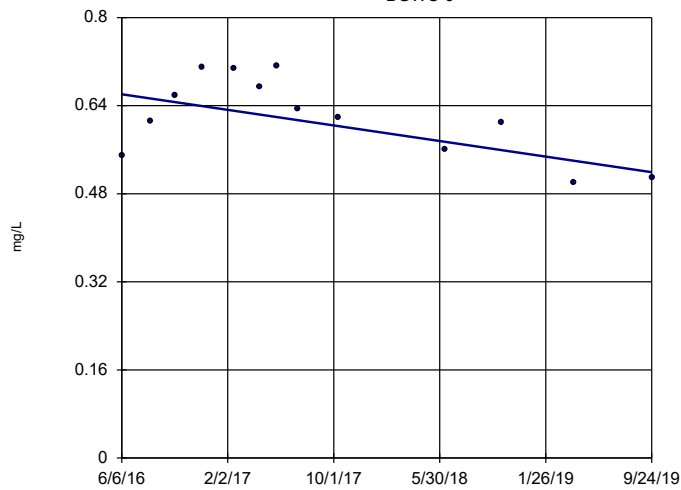
Sen's Slope Estimator
BGWC-8



n = 13
Slope = -0.006228
units per year.
Mann-Kendall
statistic = -12
critical = -34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

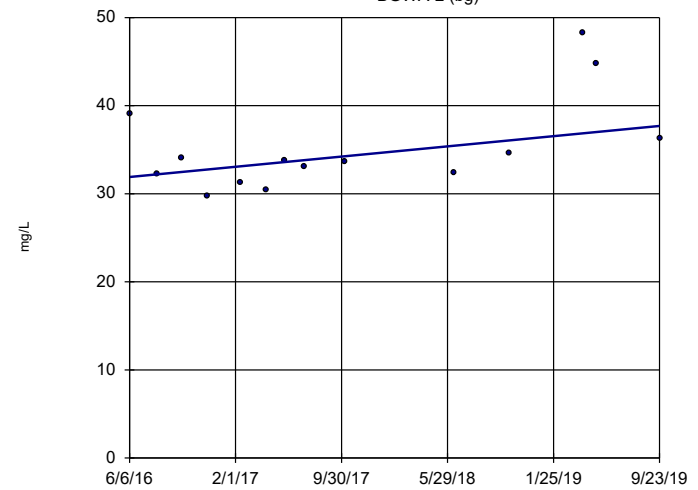
Sen's Slope Estimator
BGWC-9



n = 13
Slope = -0.04287
units per year.
Mann-Kendall
statistic = -26
critical = -34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Boron Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator
BGWA-2 (bg)

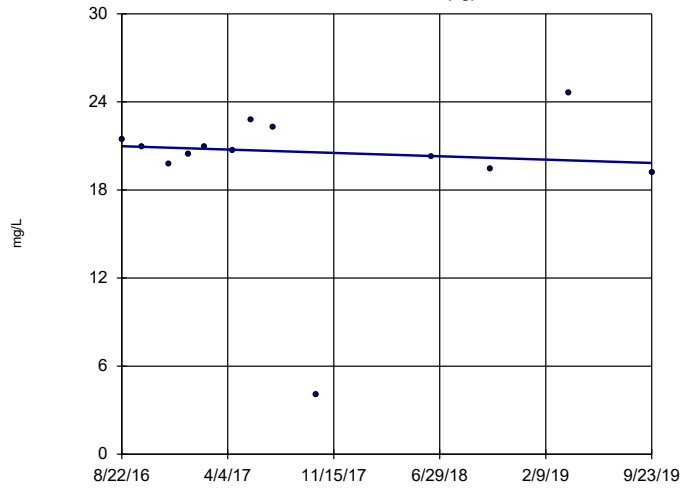


n = 14
Slope = 1.76
units per year.
Mann-Kendall
statistic = 31
critical = 37
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWA-29 (bg)

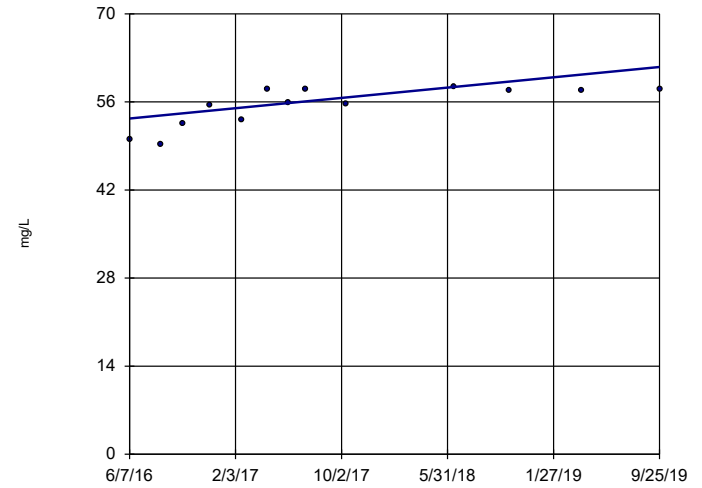


n = 13
 Slope = -0.3679
 units per year.
 Mann-Kendall
 statistic = -13
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-10

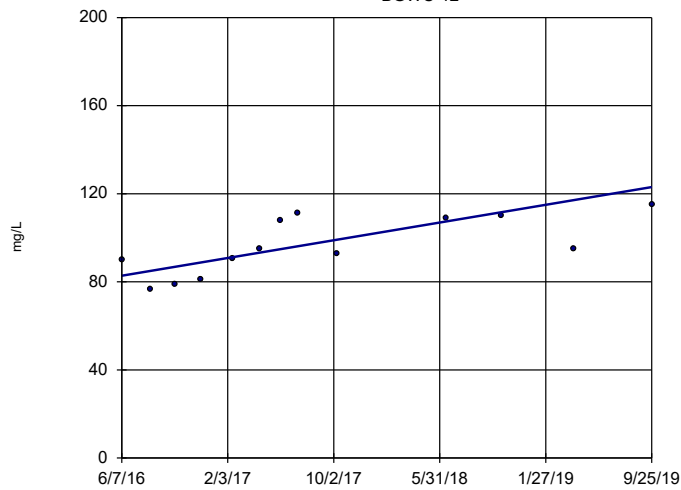


n = 13
 Slope = 2.485
 units per year.
 Mann-Kendall
 statistic = 50
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-12

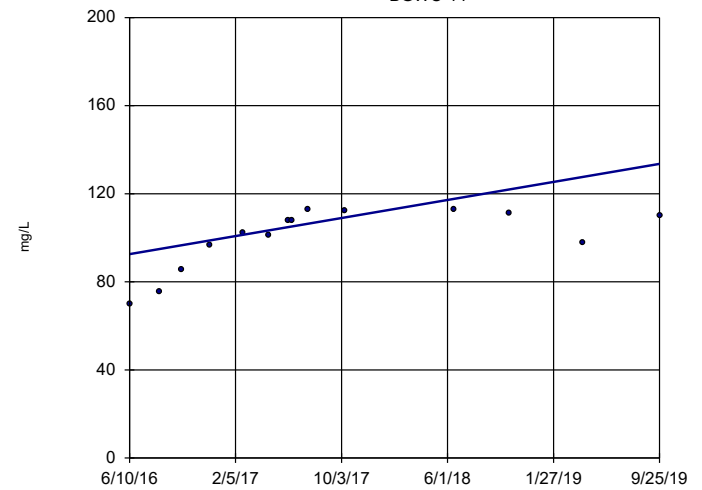


n = 13
 Slope = 12.19
 units per year.
 Mann-Kendall
 statistic = 53
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-14

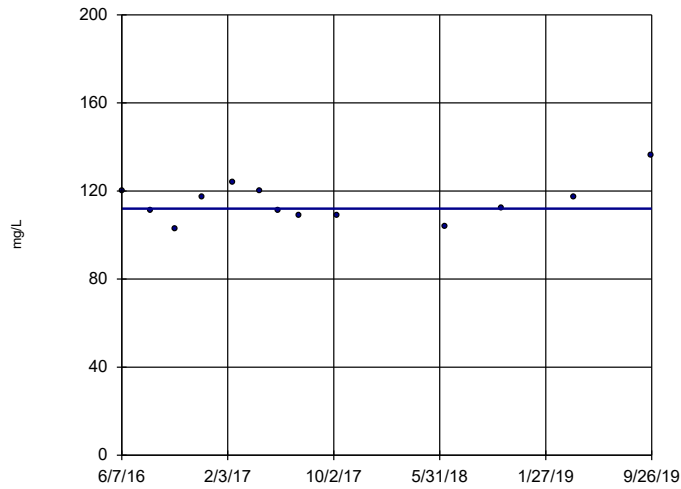


n = 14
 Slope = 12.45
 units per year.
 Mann-Kendall
 statistic = 55
 critical = 37
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-16

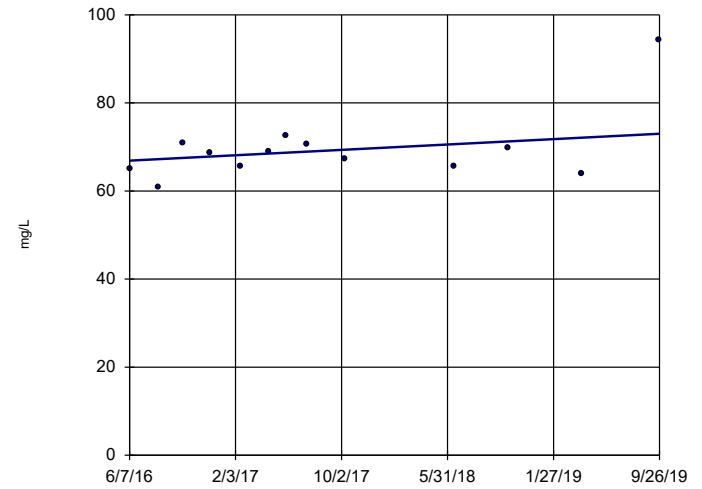


n = 13
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = 2
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-17

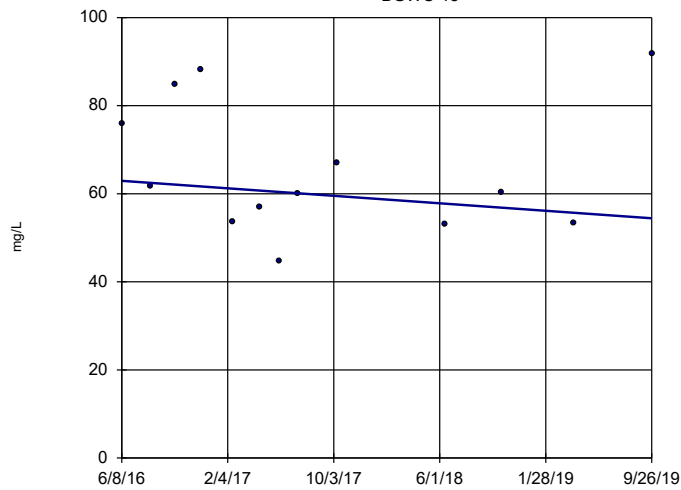


n = 13
 Slope = 1.85
 units per year.
 Mann-Kendall
 statistic = 16
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-18

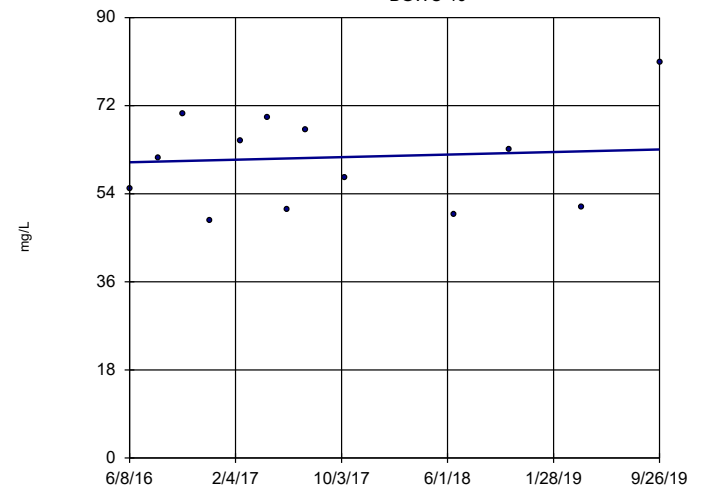


n = 13
 Slope = -2.565
 units per year.
 Mann-Kendall
 statistic = -10
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-19

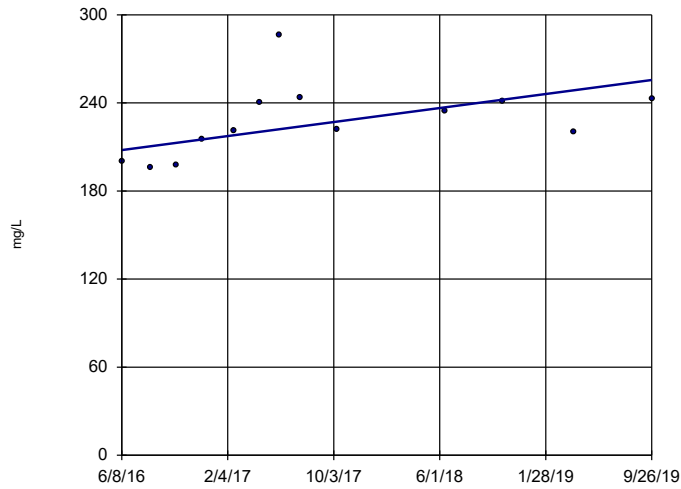


n = 13
 Slope = 0.7962
 units per year.
 Mann-Kendall
 statistic = 4
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-20

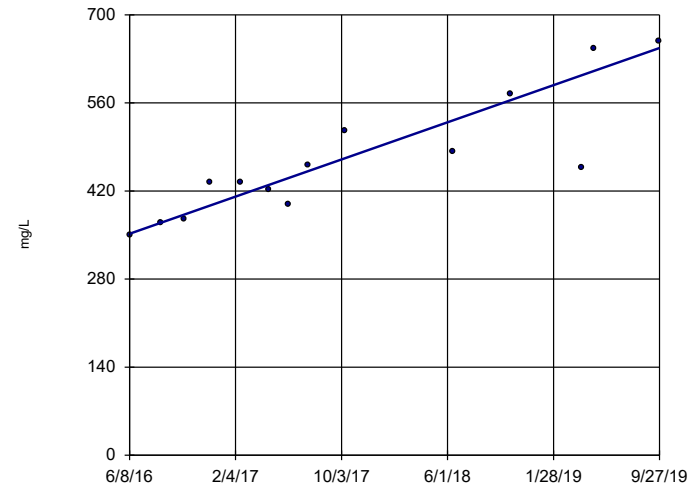


n = 13
 Slope = 14.46
 units per year.
 Mann-Kendall
 statistic = 38
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-22

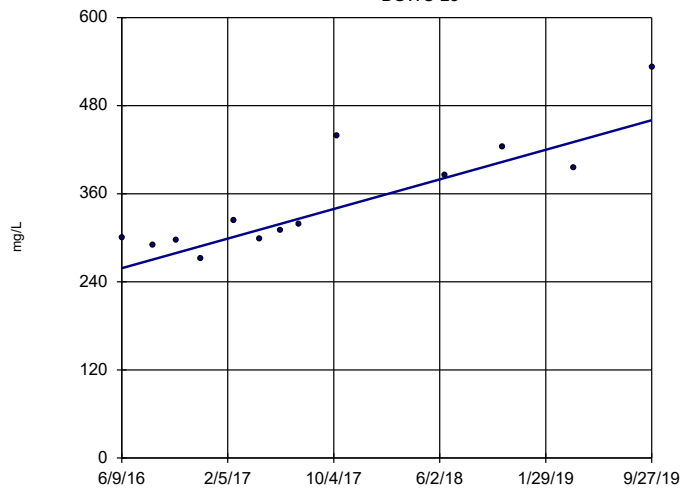


n = 14
 Slope = 89.35
 units per year.
 Mann-Kendall
 statistic = 70
 critical = 37
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-23

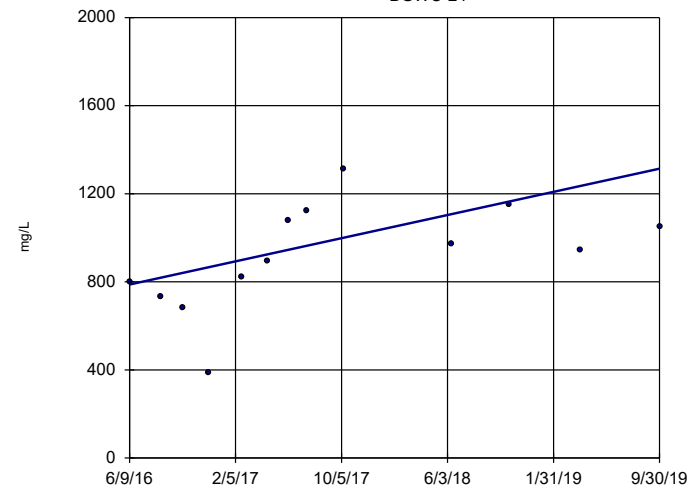


n = 13
 Slope = 61.03
 units per year.
 Mann-Kendall
 statistic = 52
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

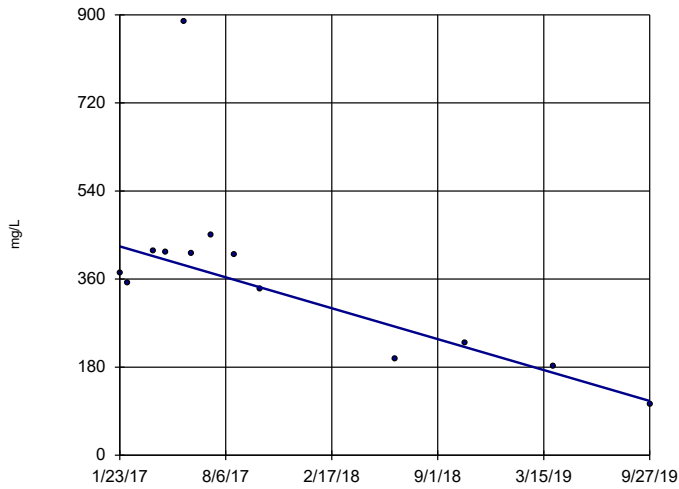
BGWC-24



n = 13
 Slope = 159
 units per year.
 Mann-Kendall
 statistic = 40
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

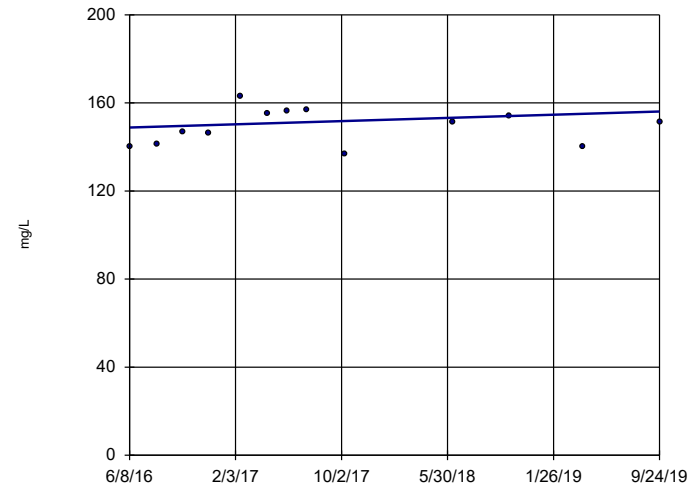
Sen's Slope Estimator
BGWC-30



n = 13
Slope = -118 units per year.
Mann-Kendall statistic = -42
critical = -34
Decreasing trend significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

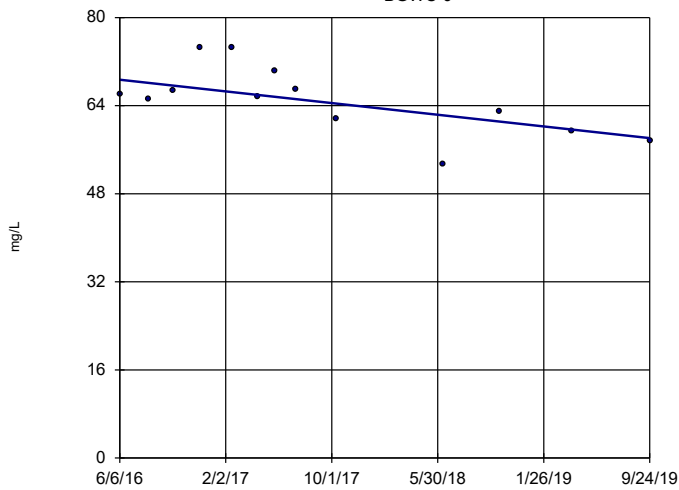
Sen's Slope Estimator
BGWC-7



n = 13
Slope = 2.205 units per year.
Mann-Kendall statistic = 8
critical = 34
Trend not significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

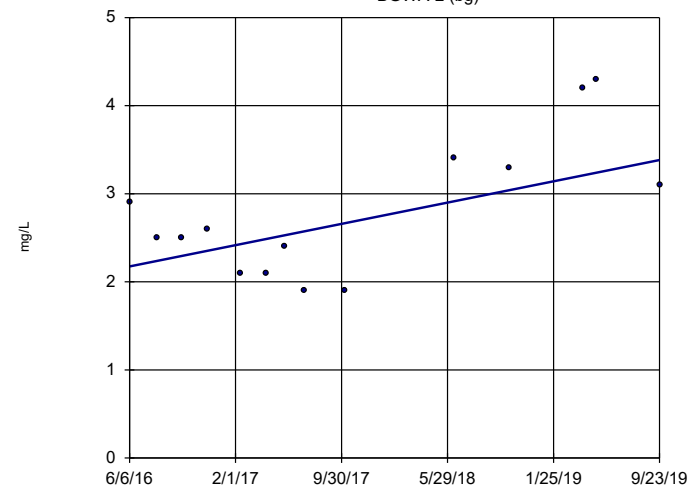
Sen's Slope Estimator
BGWC-9



n = 13
Slope = -3.209 units per year.
Mann-Kendall statistic = -35
critical = -34
Decreasing trend significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Calcium Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator
BGWA-2 (bg)

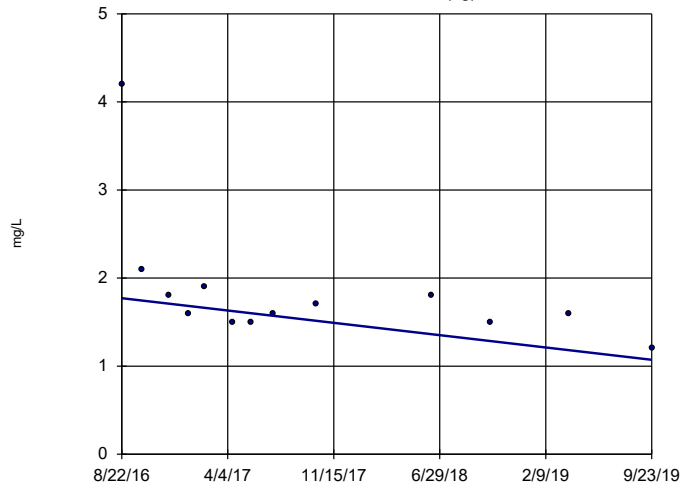


n = 14
Slope = 0.3659 units per year.
Mann-Kendall statistic = 20
critical = 37
Trend not significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWA-29 (bg)

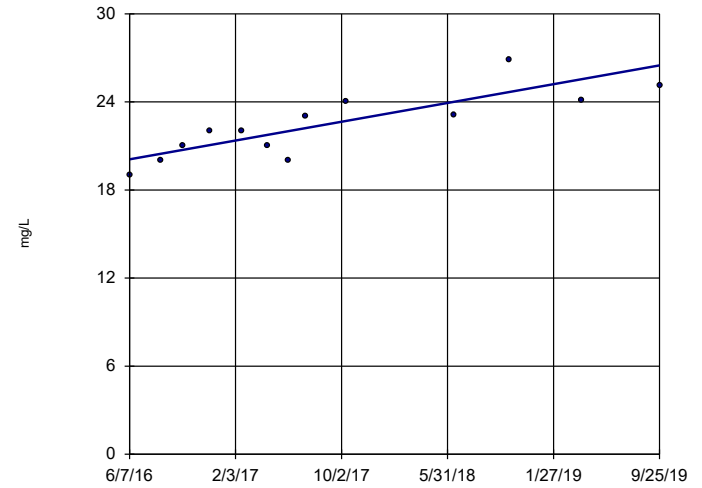


n = 13
 Slope = -0.2266
 units per year.
 Mann-Kendall
 statistic = -39
 critical = -34
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-10

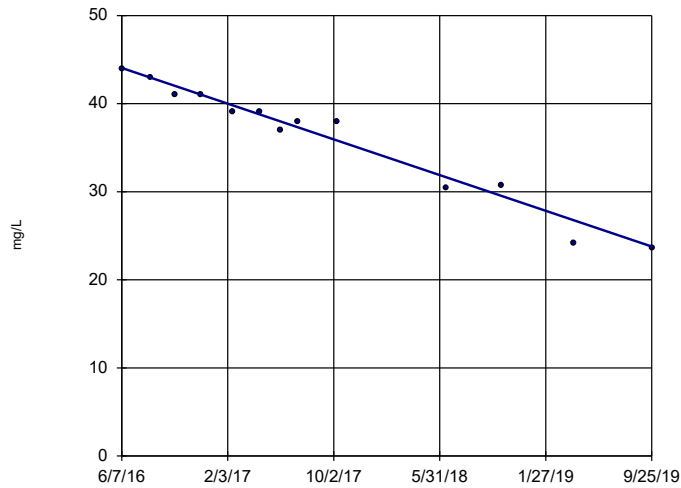


n = 13
 Slope = 1.939
 units per year.
 Mann-Kendall
 statistic = 57
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-12

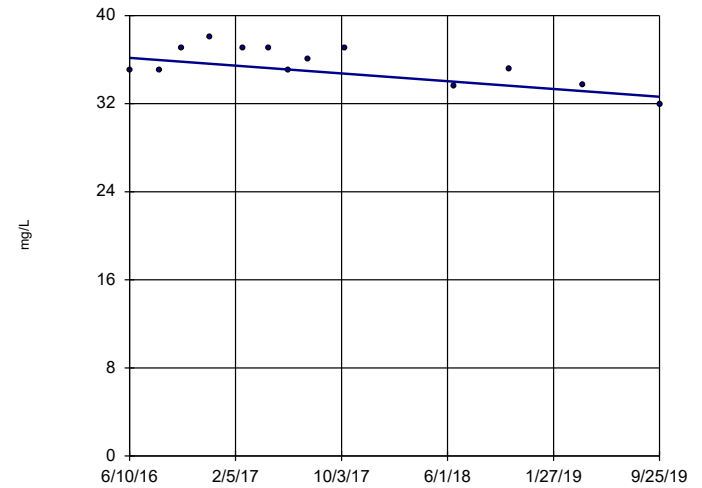


n = 13
 Slope = -6.144
 units per year.
 Mann-Kendall
 statistic = -69
 critical = -34
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

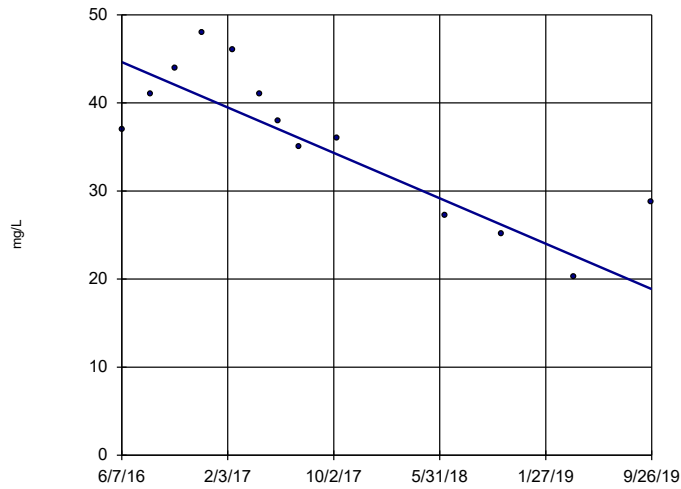
BGWC-14



n = 13
 Slope = -1.072
 units per year.
 Mann-Kendall
 statistic = -27
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

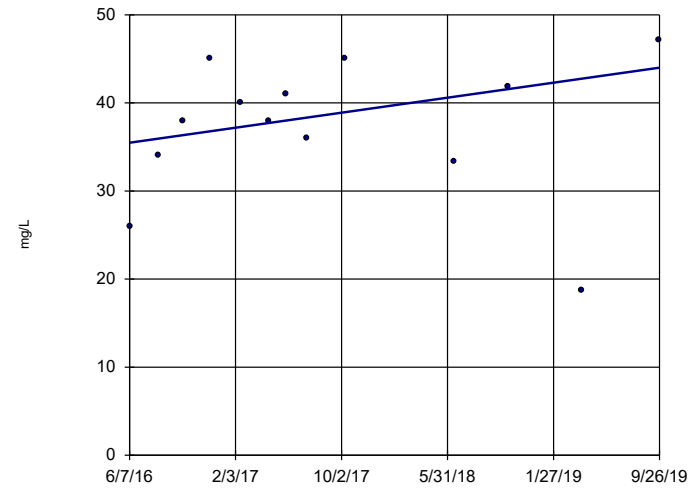
Sen's Slope Estimator
BGWC-16



n = 13
Slope = -7.798
units per year.
Mann-Kendall
statistic = -47
critical = -34
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

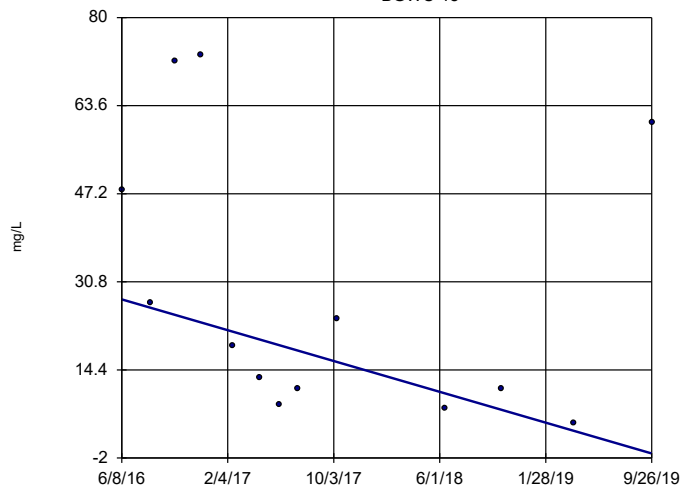
Sen's Slope Estimator
BGWC-17



n = 13
Slope = 2.581
units per year.
Mann-Kendall
statistic = 16
critical = 34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

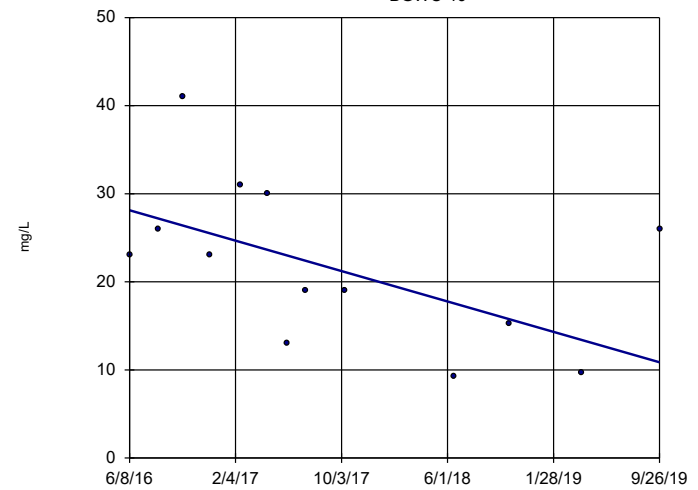
Sen's Slope Estimator
BGWC-18



n = 13
Slope = -8.685
units per year.
Mann-Kendall
statistic = -34
critical = -34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator
BGWC-19

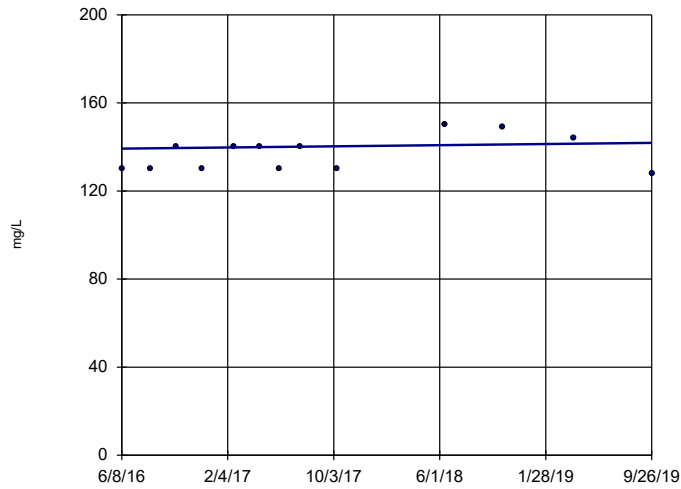


n = 13
Slope = -5.228
units per year.
Mann-Kendall
statistic = -31
critical = -34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-20

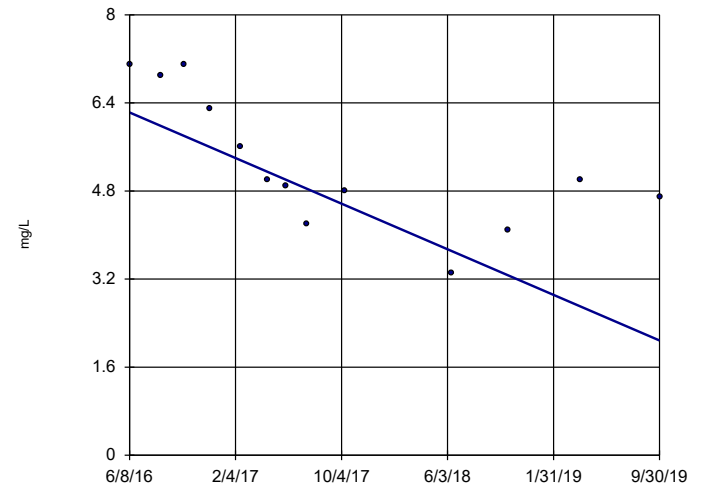


n = 13
 Slope = 0.8066
 units per year.
 Mann-Kendall
 statistic = 16
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-21

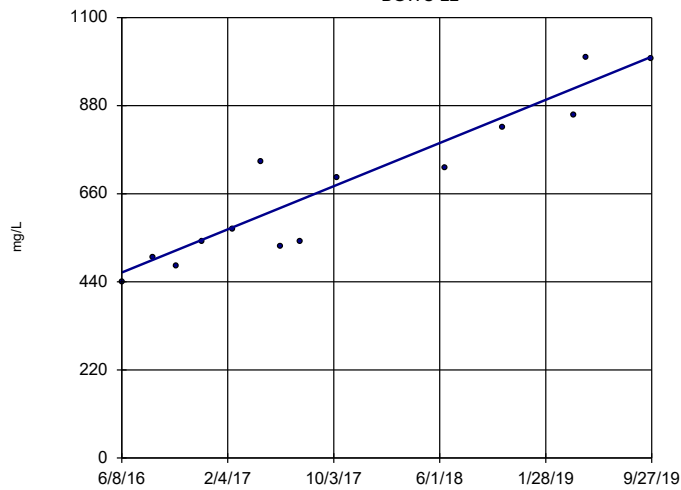


n = 13
 Slope = -1.25
 units per year.
 Mann-Kendall
 statistic = -54
 critical = -34
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-22

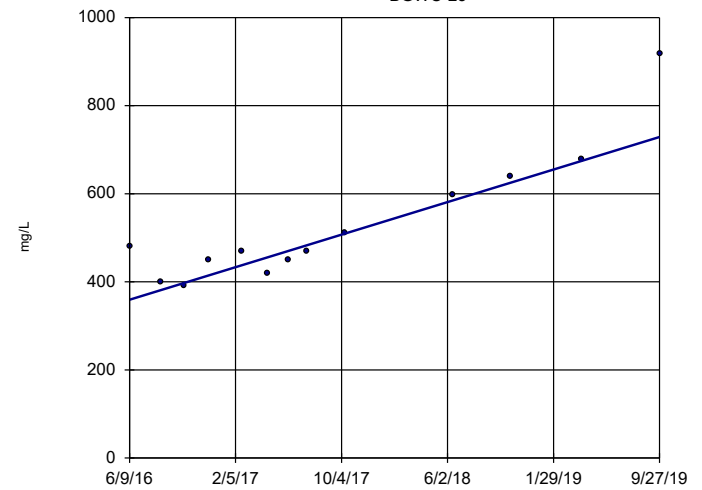


n = 14
 Slope = 163.1
 units per year.
 Mann-Kendall
 statistic = 72
 critical = 37
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

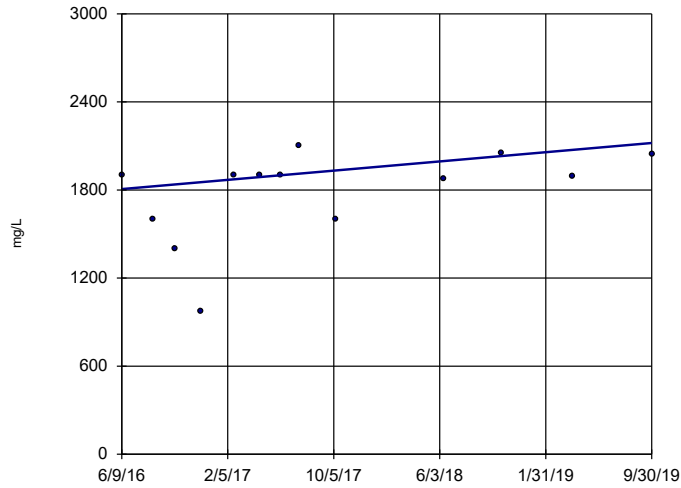
BGWC-23



n = 13
 Slope = 112
 units per year.
 Mann-Kendall
 statistic = 54
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

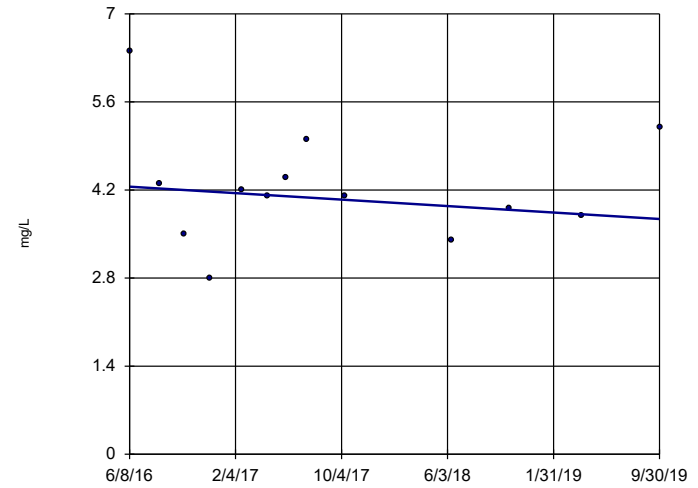
Sen's Slope Estimator BGWC-24



n = 13
 Slope = 94.63
 units per year.
 Mann-Kendall
 statistic = 21
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

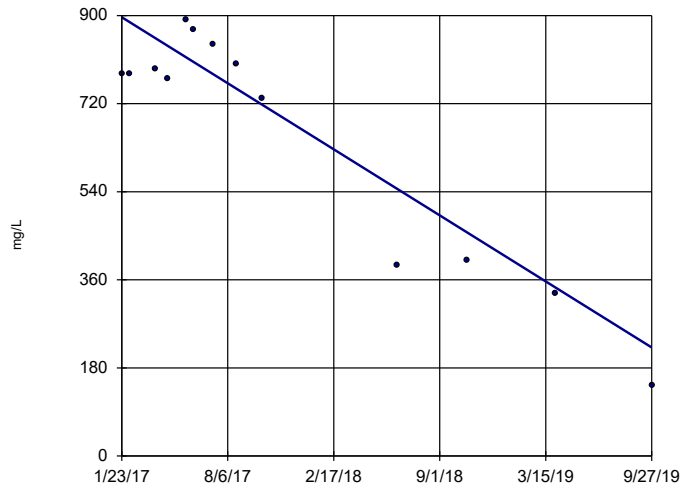
Sen's Slope Estimator BGWC-25



n = 13
 Slope = -0.155
 units per year.
 Mann-Kendall
 statistic = -7
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

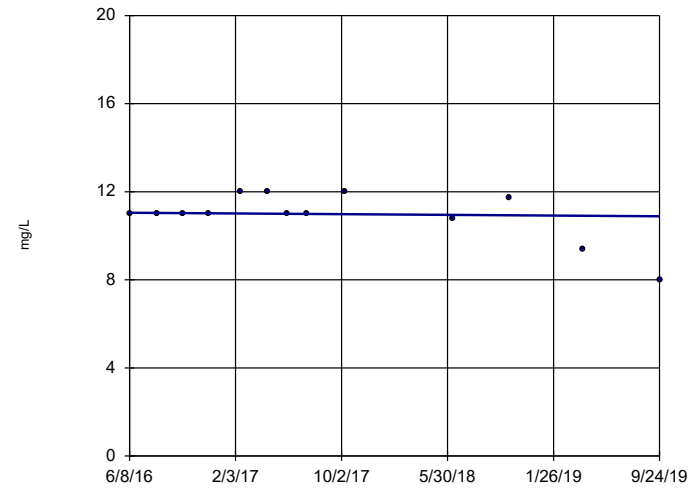
Sen's Slope Estimator BGWC-30



n = 13
 Slope = -252.1
 units per year.
 Mann-Kendall
 statistic = -39
 critical = -34
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-7

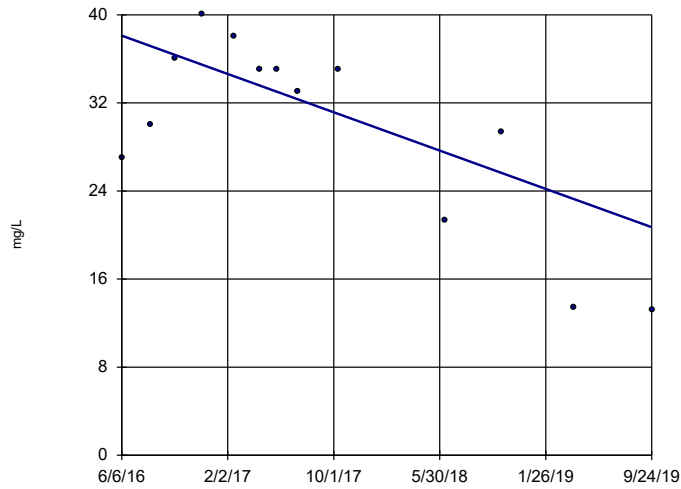


n = 13
 Slope = -0.04966
 units per year.
 Mann-Kendall
 statistic = -18
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-9



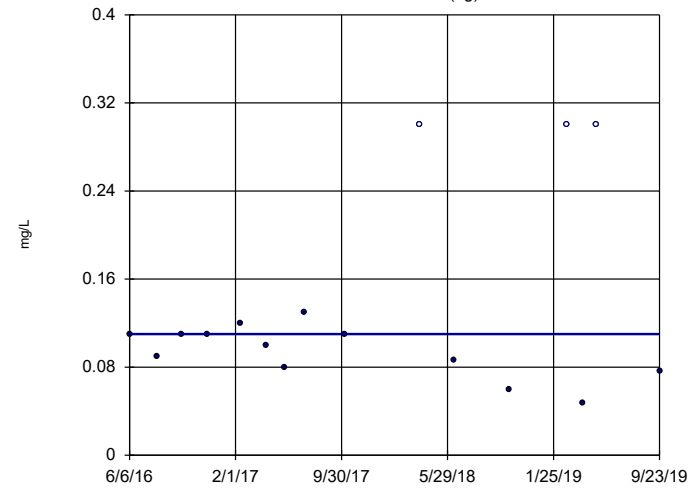
n = 13
 Slope = -5.269
 units per year.
 Mann-Kendall
 statistic = -35
 critical = -34
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Chloride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Hollow symbols indicate censored values.

Sen's Slope Estimator

BGWA-2 (bg)

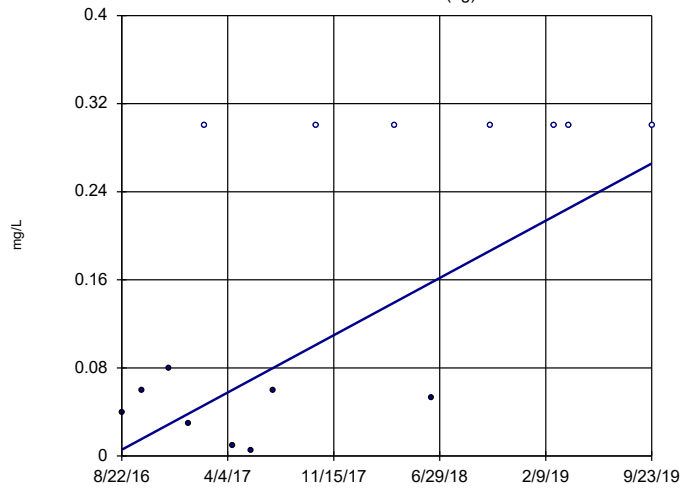


n = 16
 Slope = 0
 units per year.
 Mann-Kendall
 statistic = -7
 critical = -45
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWA-29 (bg)

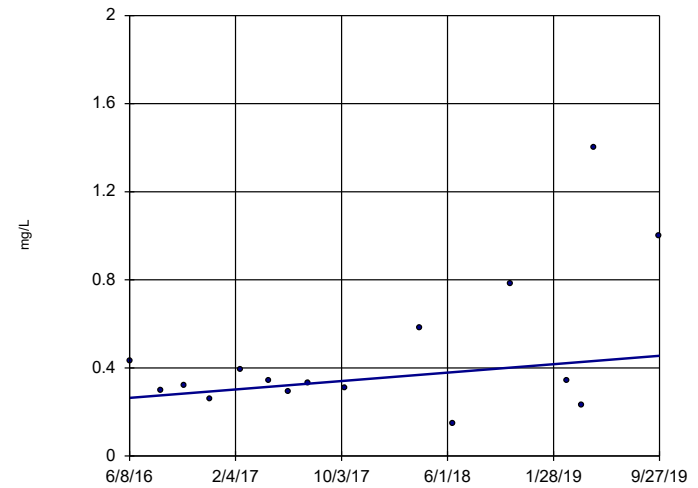


n = 15
 Slope = 0.08421
 units per year.
 Mann-Kendall
 statistic = 39
 critical = 41
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-22

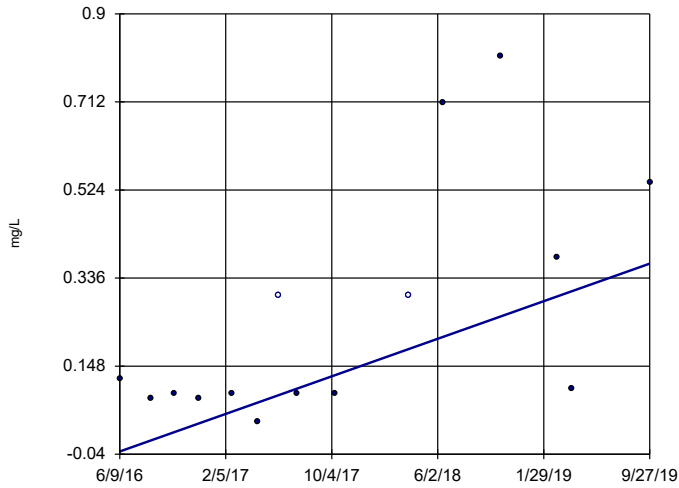


n = 16
 Slope = 0.05792
 units per year.
 Mann-Kendall
 statistic = 23
 critical = 45
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Fluoride Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-23

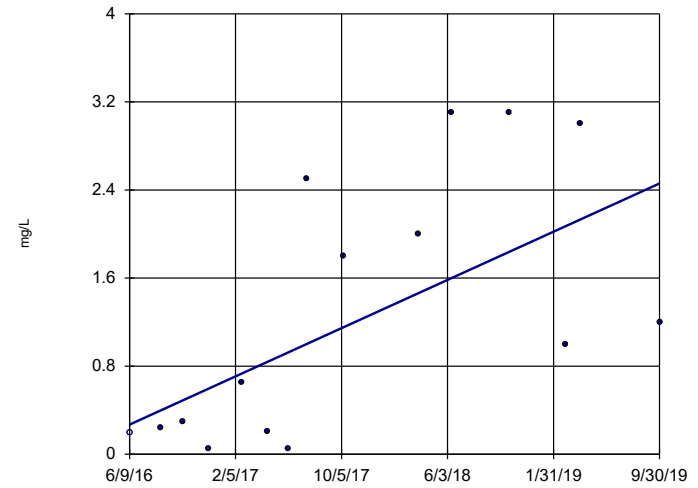


n = 15
Slope = 0.1214 units per year.
Mann-Kendall statistic = 49
critical = 41
Increasing trend significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Fluoride Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-24

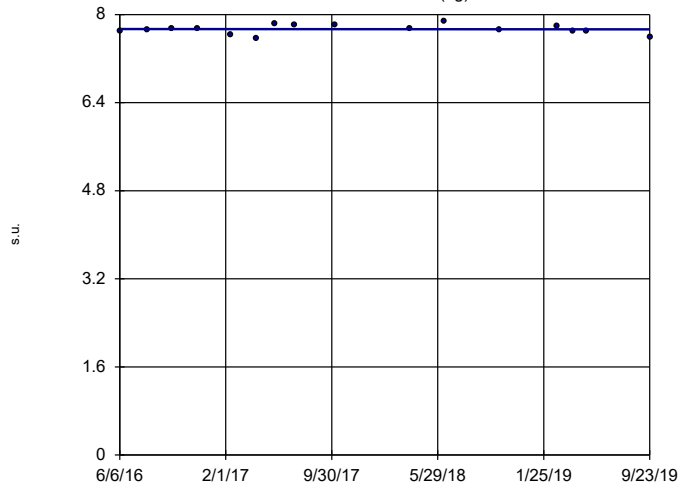


n = 15
Slope = 0.6616 units per year.
Mann-Kendall statistic = 51
critical = 41
Increasing trend significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: Fluoride Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWA-2 (bg)

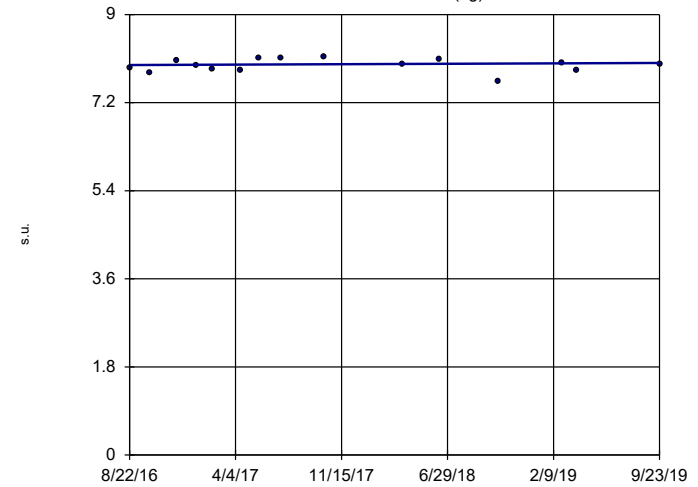


n = 16
Slope = -0.001832 units per year.
Mann-Kendall statistic = -3
critical = -45
Trend not significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

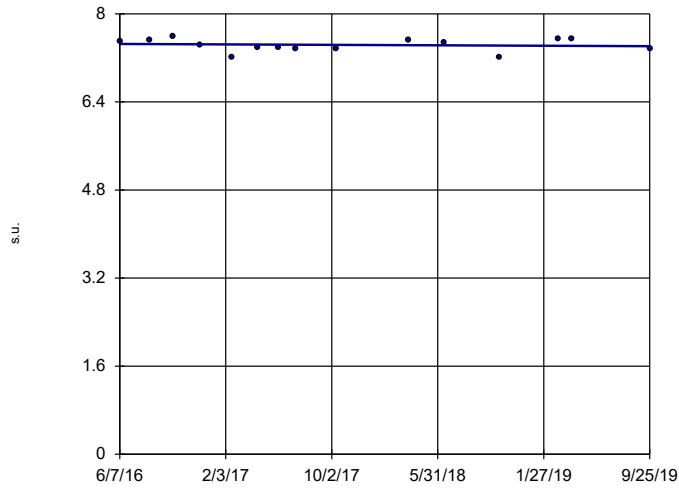
BGWA-29 (bg)



n = 15
Slope = 0.01407 units per year.
Mann-Kendall statistic = 6
critical = 41
Trend not significant at 95% confidence level ($\alpha = 0.025$ per tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

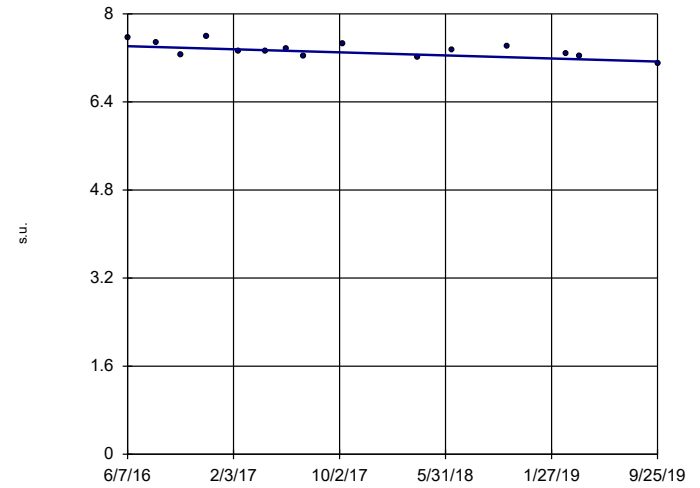
Sen's Slope Estimator BGWC-10



n = 15
 Slope = -0.01251
 units per year.
 Mann-Kendall
 statistic = -13
 critical = -41
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

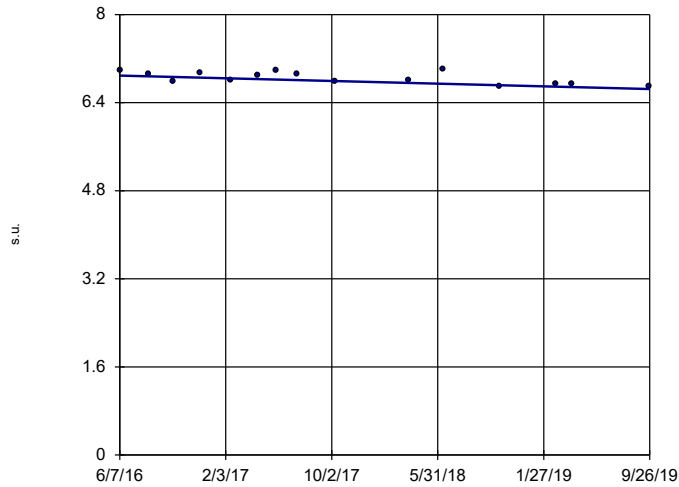
Sen's Slope Estimator BGWC-12



n = 15
 Slope = -0.08435
 units per year.
 Mann-Kendall
 statistic = -47
 critical = -41
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

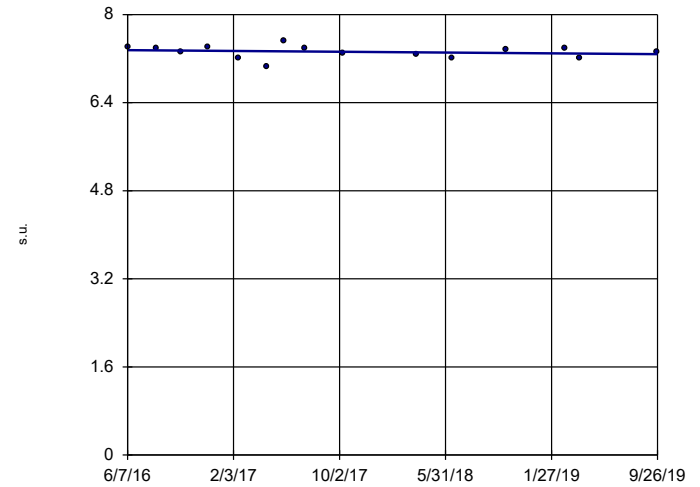
Sen's Slope Estimator BGWC-16



n = 15
 Slope = -0.07358
 units per year.
 Mann-Kendall
 statistic = -44
 critical = -41
 Decreasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

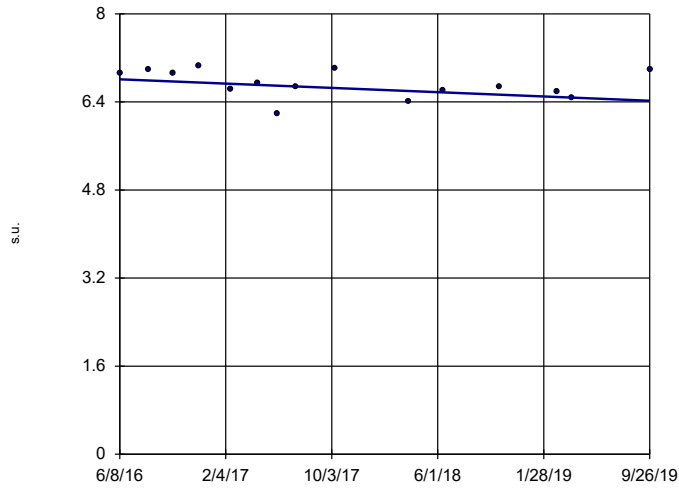
Sen's Slope Estimator BGWC-17



n = 15
 Slope = -0.02239
 units per year.
 Mann-Kendall
 statistic = -27
 critical = -41
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

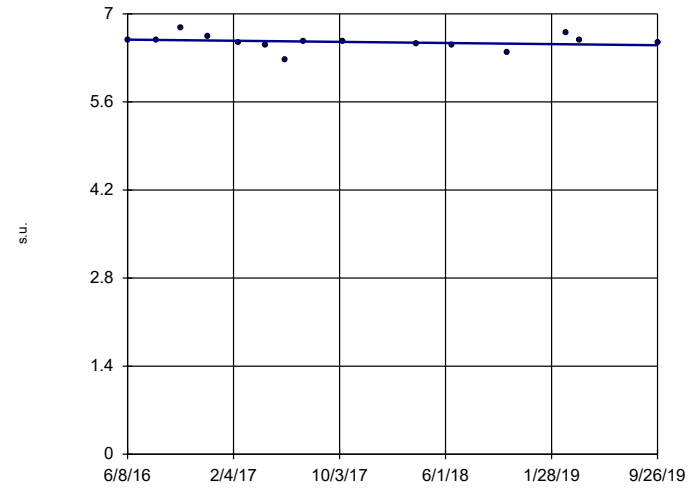
Constituent: pH Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-18



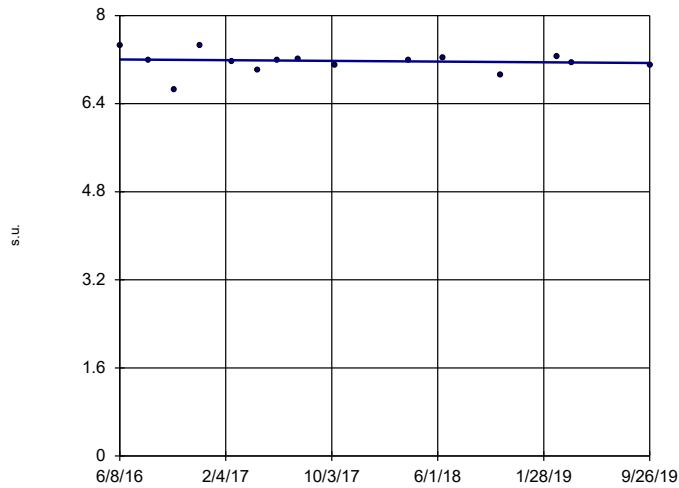
Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-19



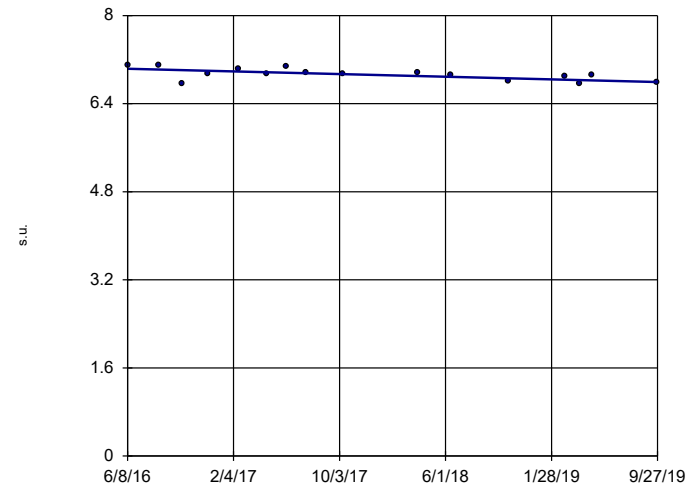
Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-20



Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

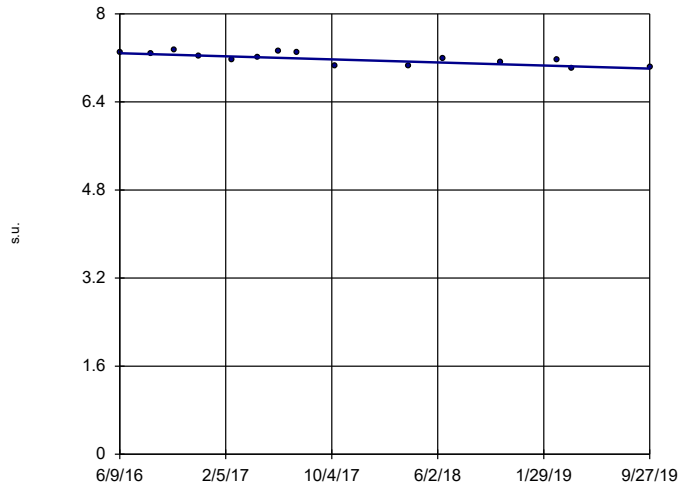
Sen's Slope Estimator BGWC-22



Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-23

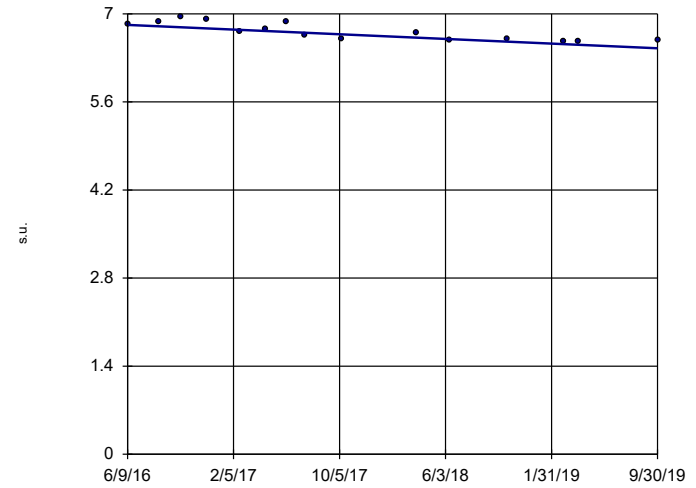


n = 15
Slope = -0.08481
units per year.
Mann-Kendall
statistic = -60
critical = -41
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-24

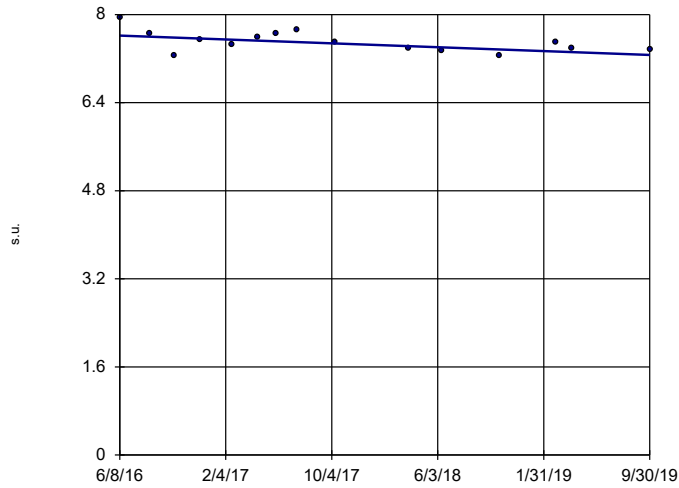


n = 15
Slope = -0.1123
units per year.
Mann-Kendall
statistic = -73
critical = -41
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-25

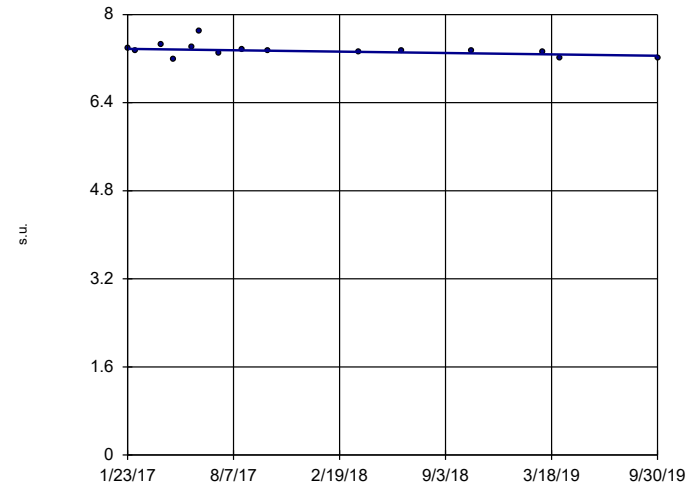


n = 15
Slope = -0.1062
units per year.
Mann-Kendall
statistic = -44
critical = -41
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

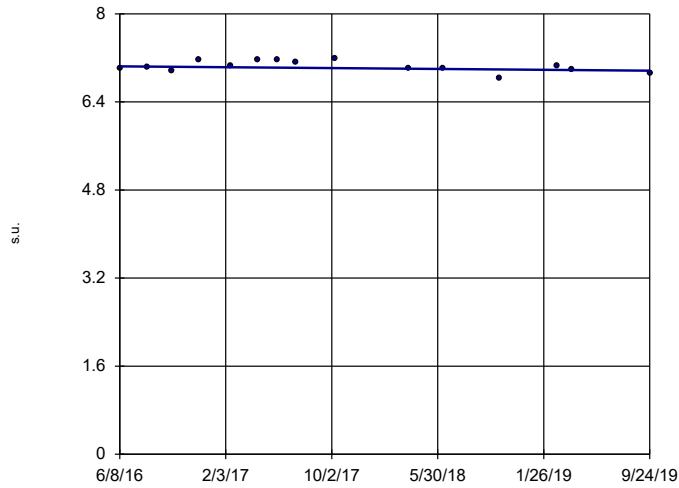
BGWC-30



n = 15
Slope = -0.04692
units per year.
Mann-Kendall
statistic = -42
critical = -41
Decreasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

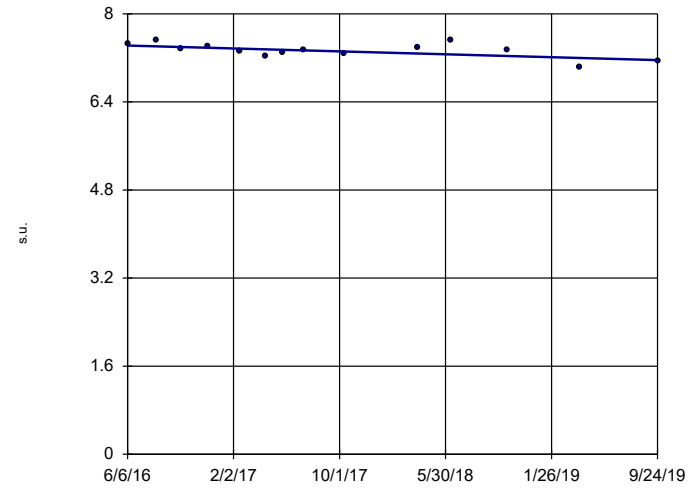
Sen's Slope Estimator BGWC-7



n = 15
 Slope = -0.02427
 units per year.
 Mann-Kendall
 statistic = -20
 critical = -41
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

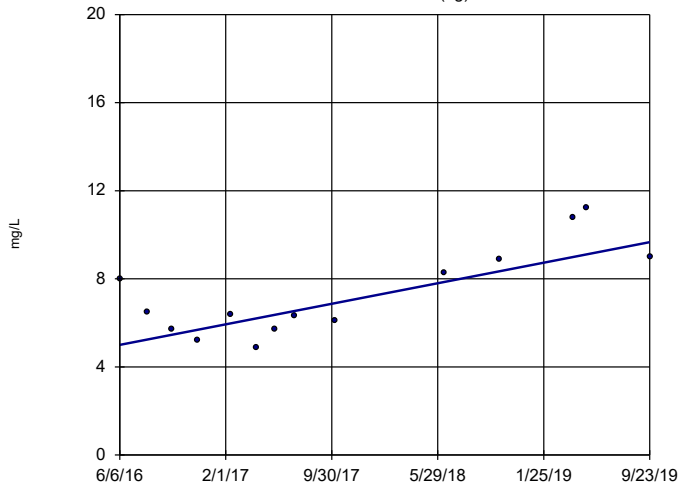
Sen's Slope Estimator BGWC-9



n = 14
 Slope = -0.08022
 units per year.
 Mann-Kendall
 statistic = -35
 critical = -37
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: pH Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

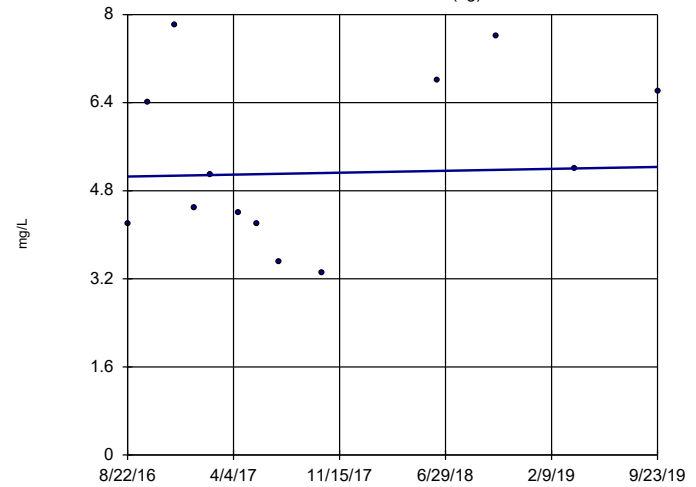
Sen's Slope Estimator BGWA-2 (bg)



n = 14
 Slope = 1.415
 units per year.
 Mann-Kendall
 statistic = 40
 critical = 37
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWA-29 (bg)

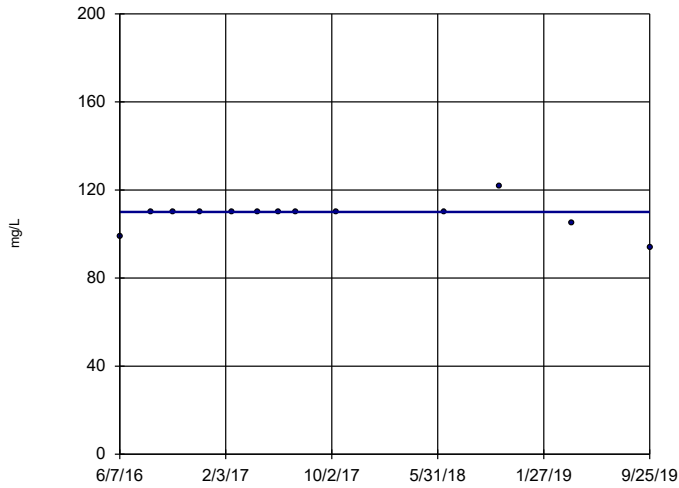


n = 13
 Slope = 0.05719
 units per year.
 Mann-Kendall
 statistic = 3
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-10

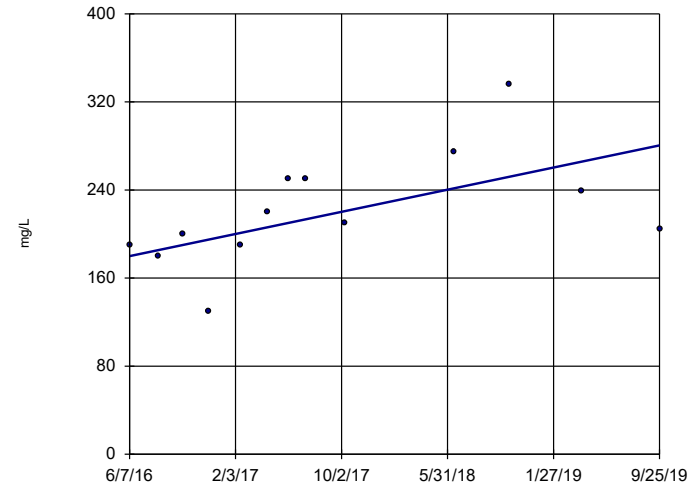


n = 13
Slope = 0
units per year.
Mann-Kendall
statistic = -2
critical = -34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-12

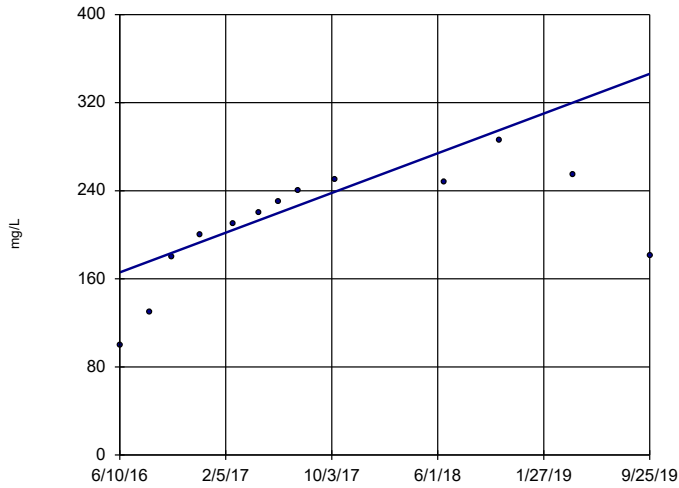


n = 13
Slope = 30.48
units per year.
Mann-Kendall
statistic = 38
critical = 34
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-14

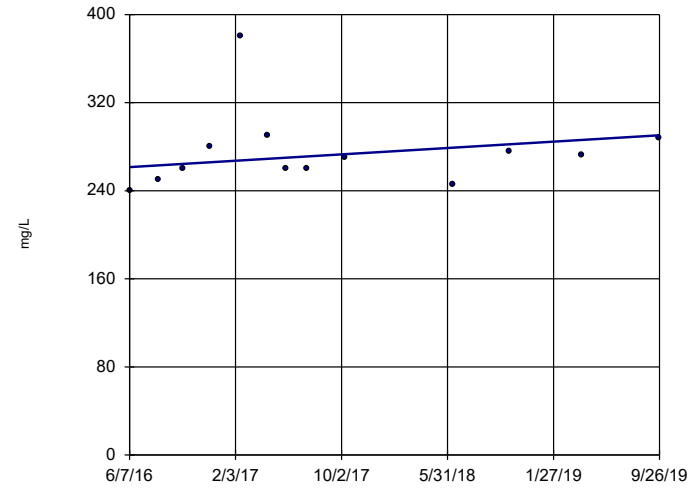


n = 13
Slope = 54.76
units per year.
Mann-Kendall
statistic = 56
critical = 34
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

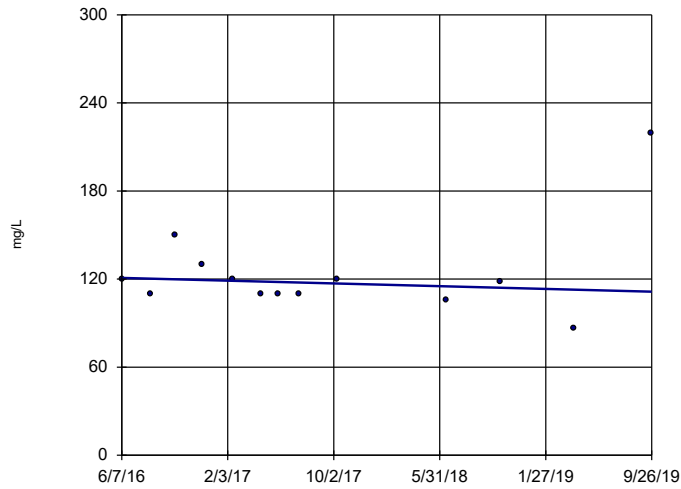
BGWC-16



n = 13
Slope = 8.759
units per year.
Mann-Kendall
statistic = 21
critical = 34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

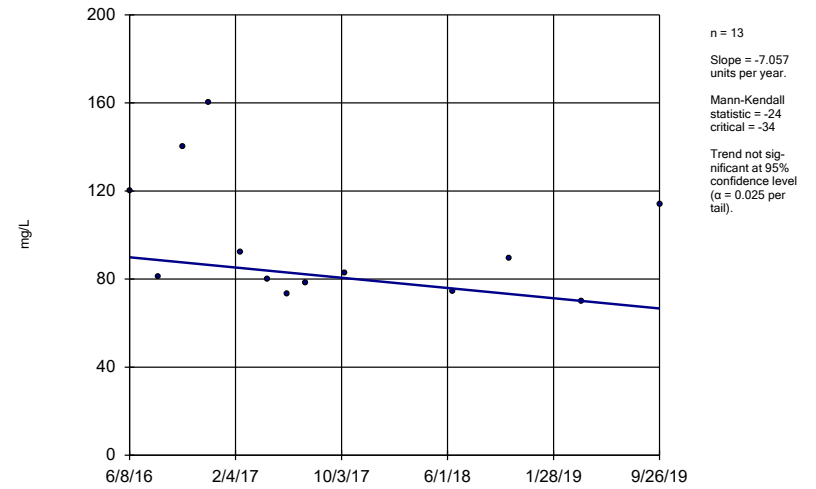
Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-17



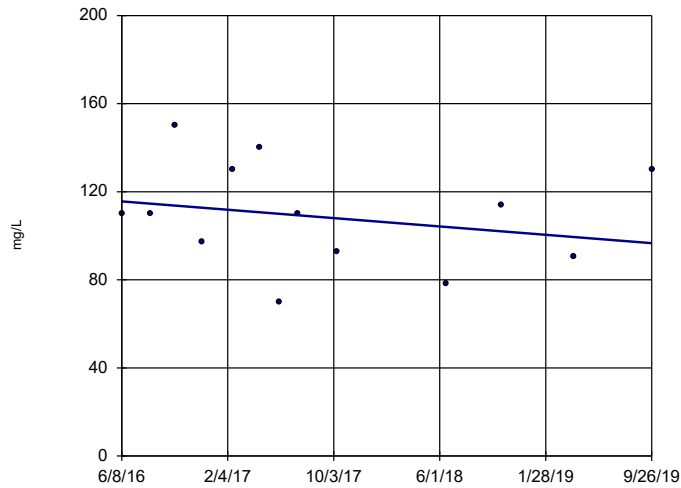
Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-18



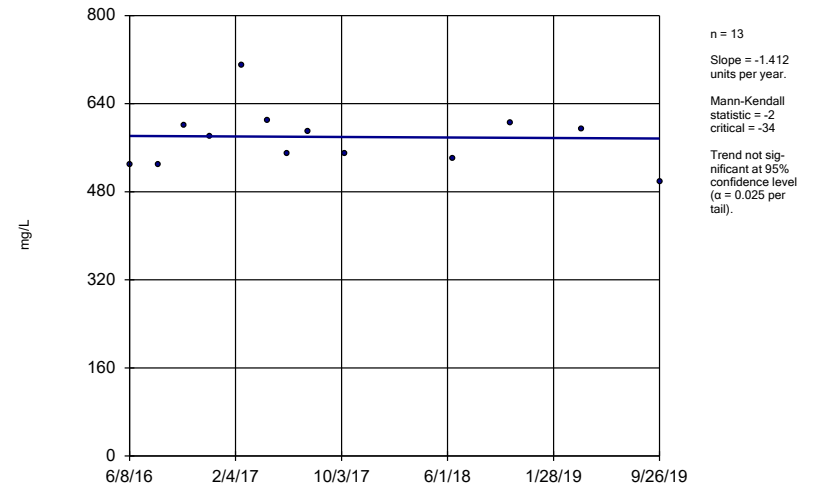
Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-19



Constituent: Sulfate Analysis Run 12/12/2019 5:22 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

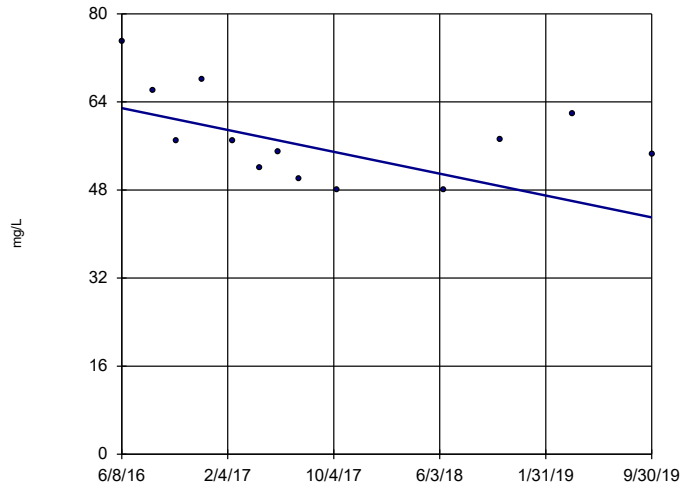
Sen's Slope Estimator BGWC-20



Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-21

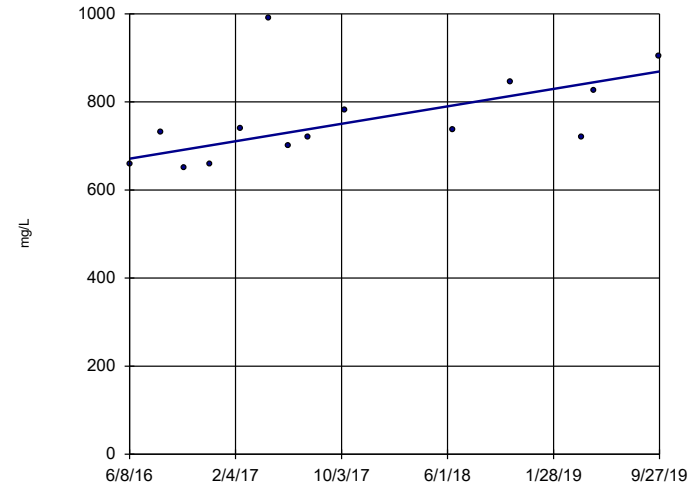


n = 13
 Slope = -5.993
 units per year.
 Mann-Kendall
 statistic = -31
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-22

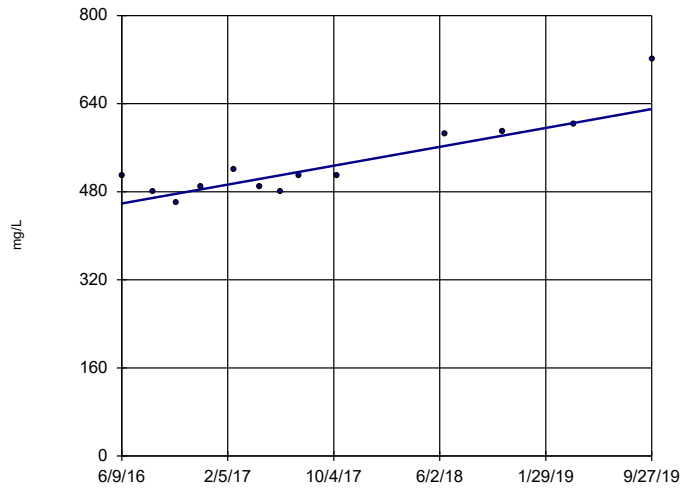


n = 14
 Slope = 59.9
 units per year.
 Mann-Kendall
 statistic = 43
 critical = 37
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-23

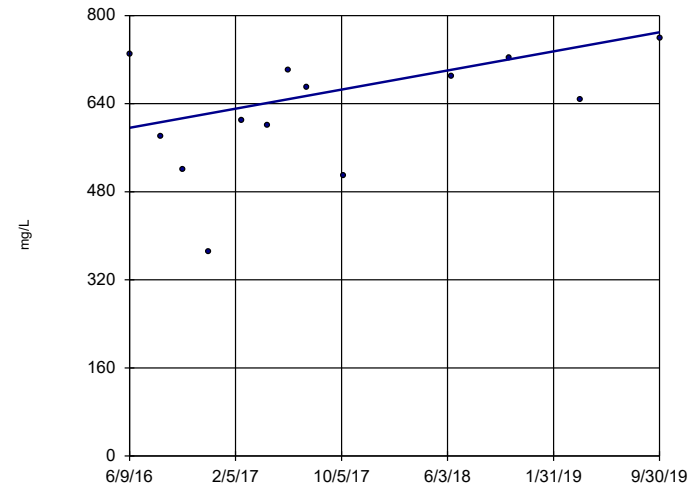


n = 13
 Slope = 51.93
 units per year.
 Mann-Kendall
 statistic = 49
 critical = 34
 Increasing trend
 significant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

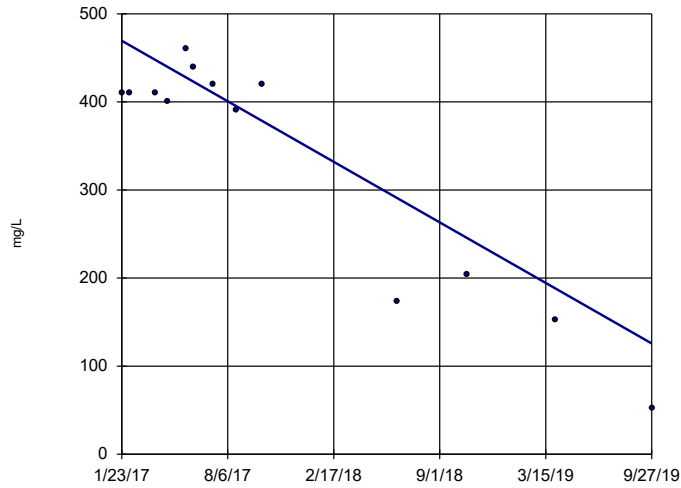
BGWC-24



n = 13
 Slope = 52.38
 units per year.
 Mann-Kendall
 statistic = 24
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

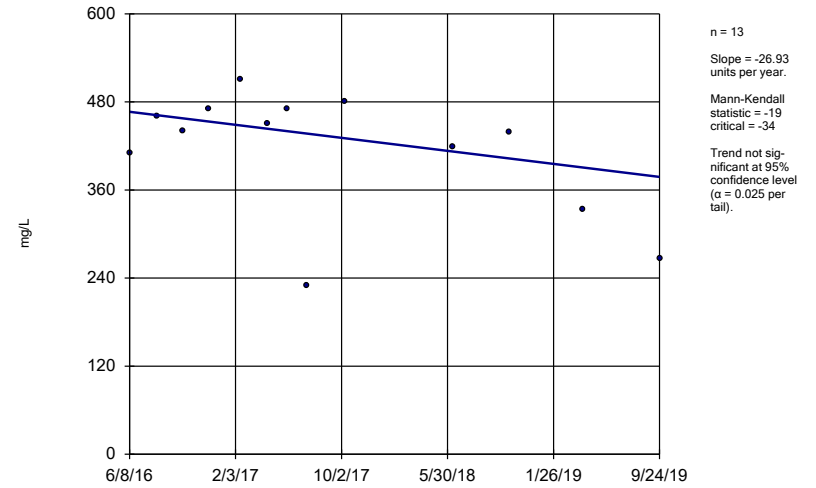
Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-30



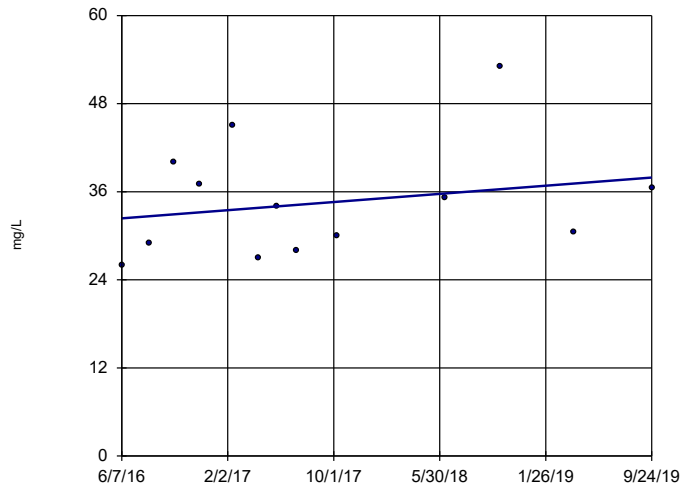
Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-7



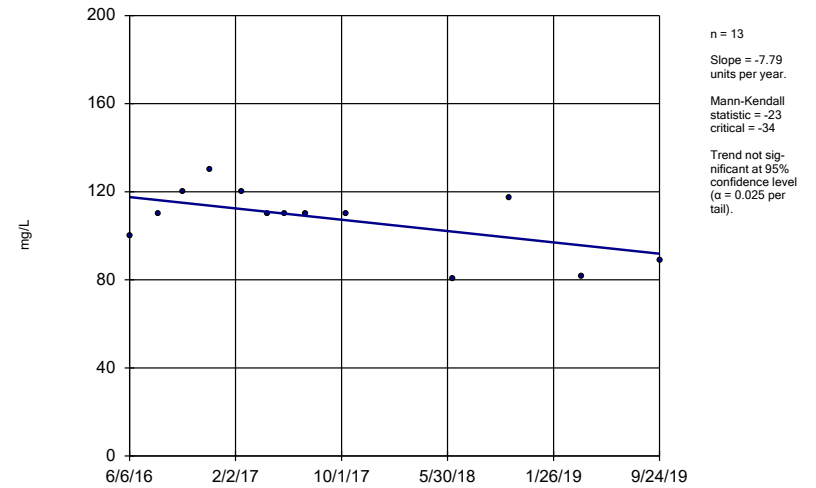
Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator BGWC-8



Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

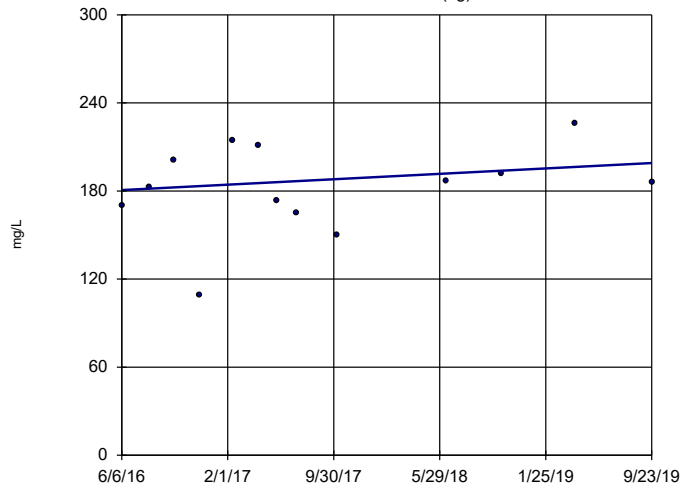
Sen's Slope Estimator BGWC-9



Constituent: Sulfate Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWA-2 (bg)

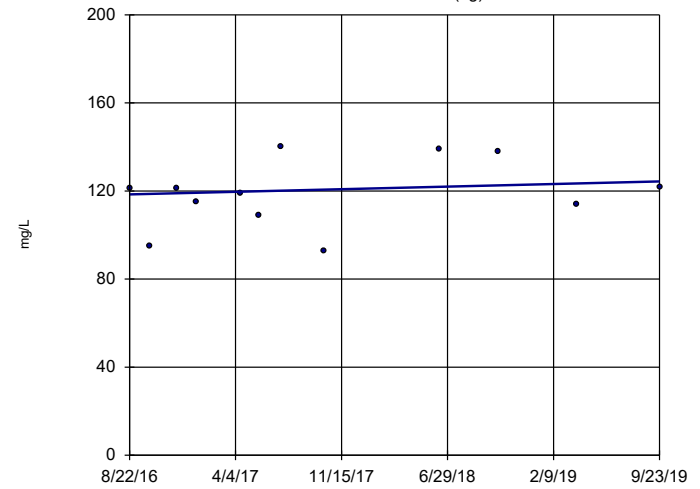


n = 13
 Slope = 5.606
 units per year.
 Mann-Kendall
 statistic = 12
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWA-29 (bg)

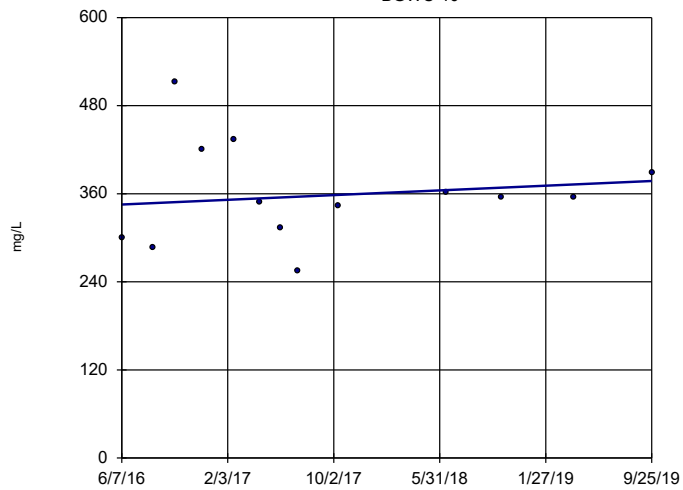


n = 12
 Slope = 1.909
 units per year.
 Mann-Kendall
 statistic = 7
 critical = 30
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-10

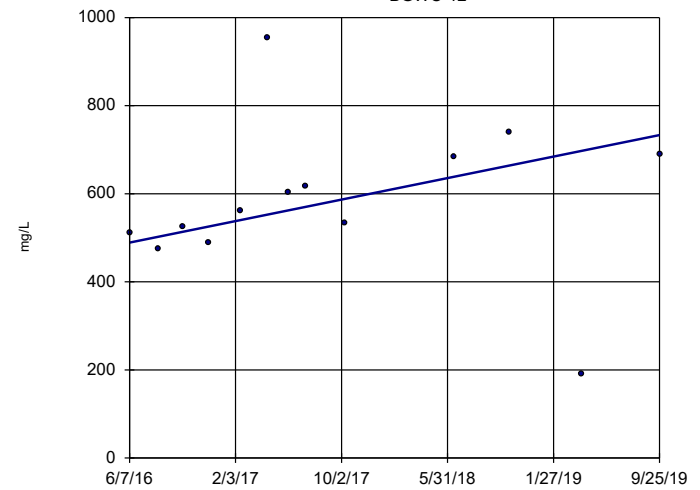


n = 13
 Slope = 9.693
 units per year.
 Mann-Kendall
 statistic = 7
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-12

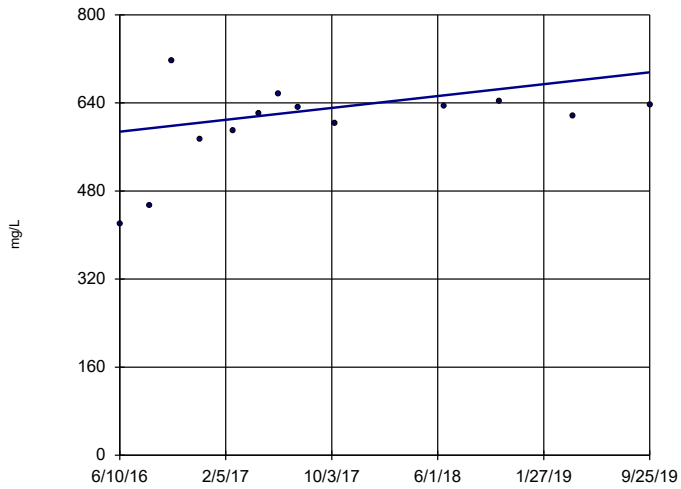


n = 13
 Slope = 73.9
 units per year.
 Mann-Kendall
 statistic = 30
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-14

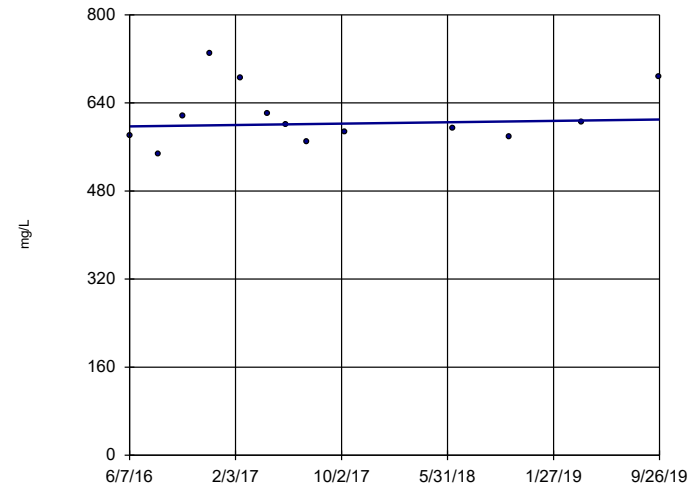


n = 13
 Slope = 32.75
 units per year.
 Mann-Kendall
 statistic = 32
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-16

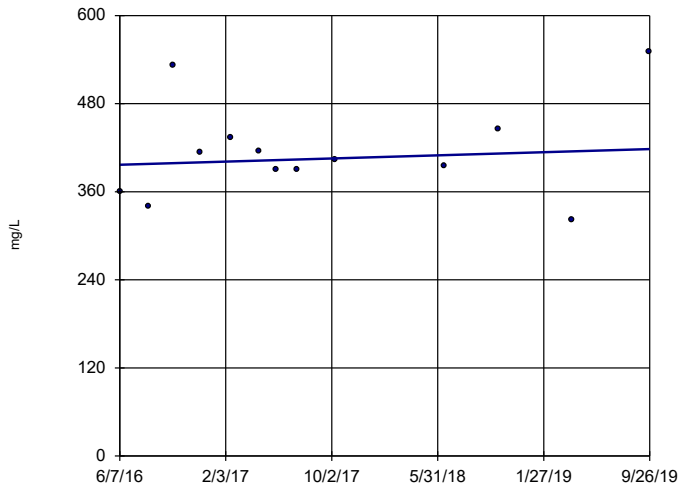


n = 13
 Slope = 3.788
 units per year.
 Mann-Kendall
 statistic = 4
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

BGWC-17

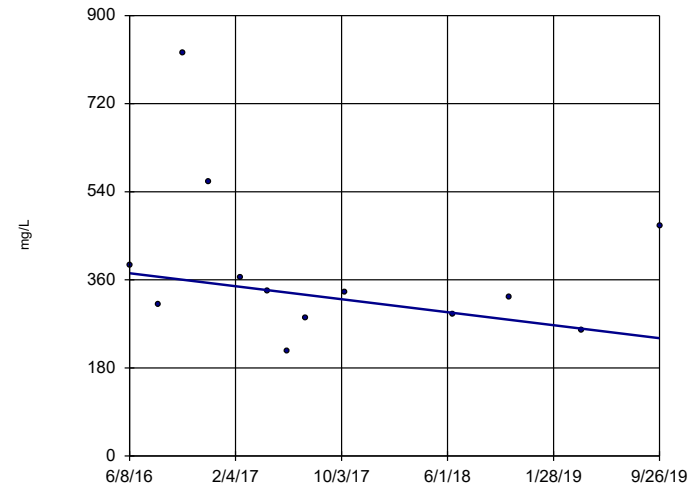


n = 13
 Slope = 6.464
 units per year.
 Mann-Kendall
 statistic = 9
 critical = 34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

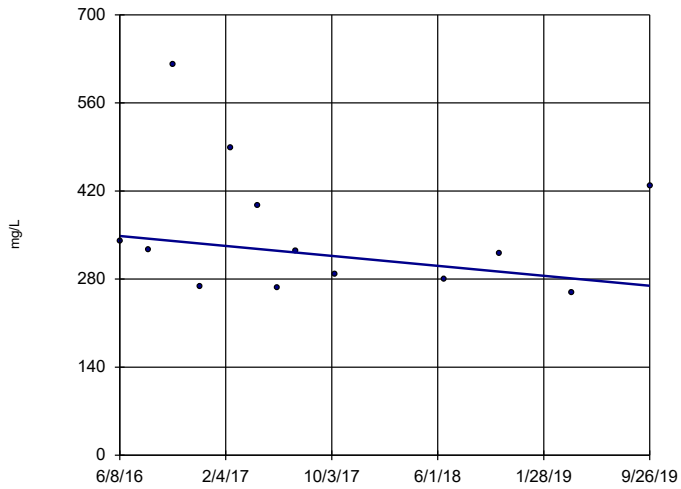
BGWC-18



n = 13
 Slope = -40.22
 units per year.
 Mann-Kendall
 statistic = -24
 critical = -34
 Trend not sig-
 nificant at 95%
 confidence level
 ($\alpha = 0.025$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

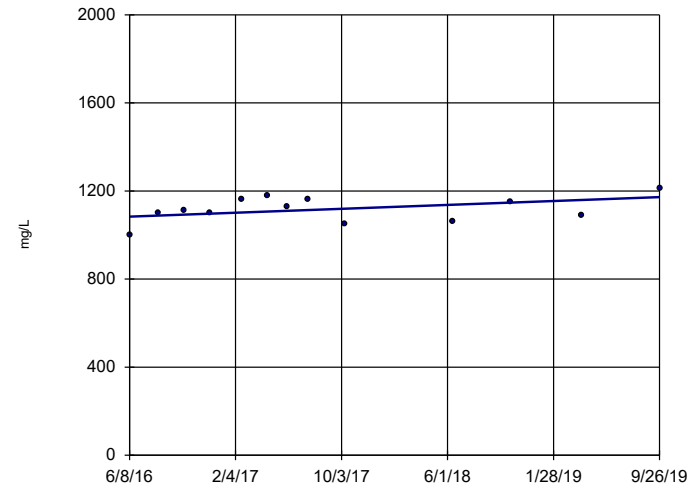
Sen's Slope Estimator
BGWC-19



n = 13
Slope = -23.99
units per year.
Mann-Kendall
statistic = -22
critical = -34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

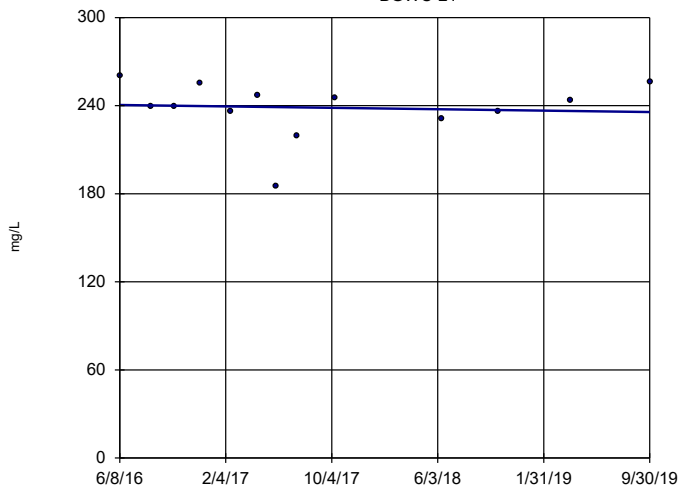
Sen's Slope Estimator
BGWC-20



n = 13
Slope = 26.88
units per year.
Mann-Kendall
statistic = 18
critical = 34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

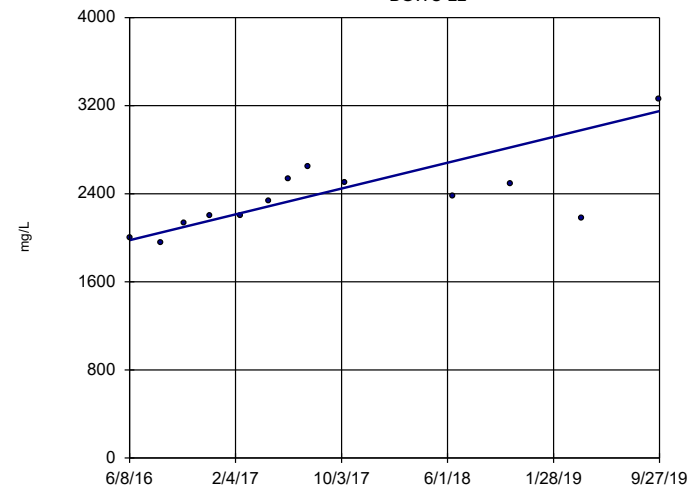
Sen's Slope Estimator
BGWC-21



n = 13
Slope = -1.432
units per year.
Mann-Kendall
statistic = -8
critical = -34
Trend not sig-
nificant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator
BGWC-22

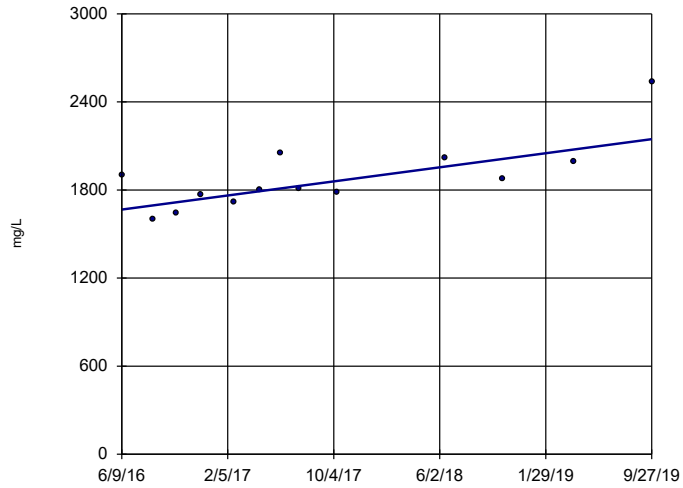


n = 13
Slope = 355
units per year.
Mann-Kendall
statistic = 43
critical = 34
Increasing trend
significant at 95%
confidence level
($\alpha = 0.025$ per
tail).

Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

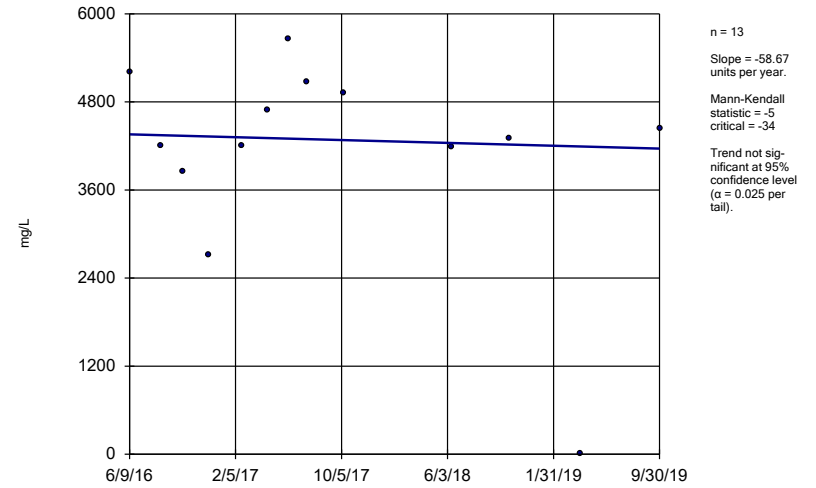
BGWC-23



Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

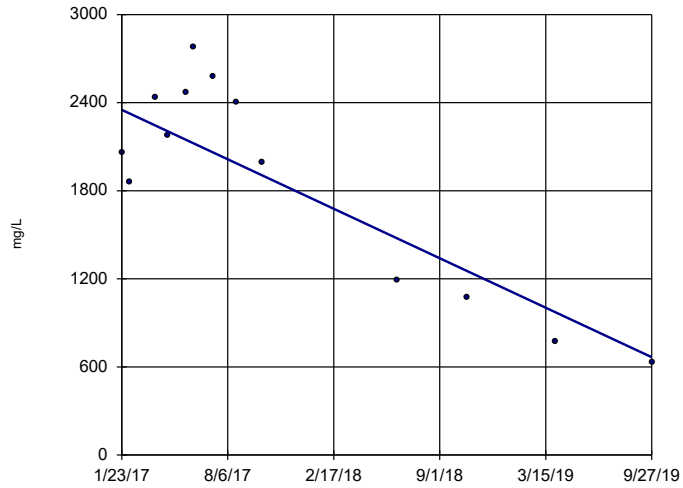
BGWC-24



Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

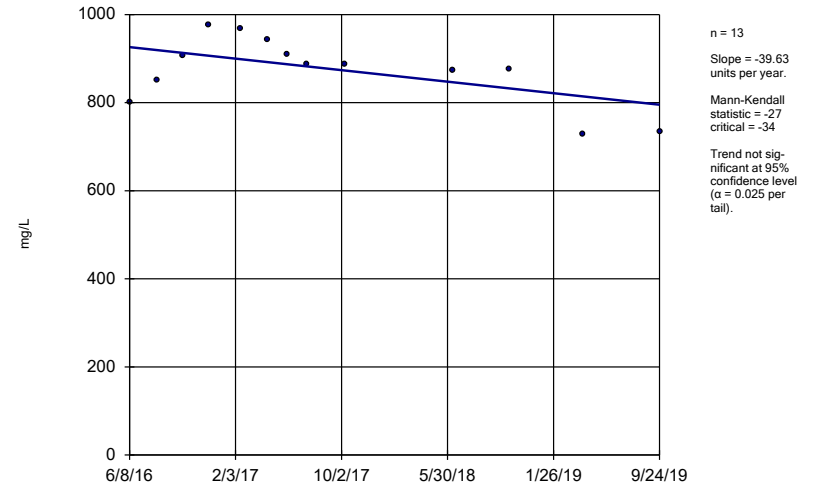
BGWC-30



Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

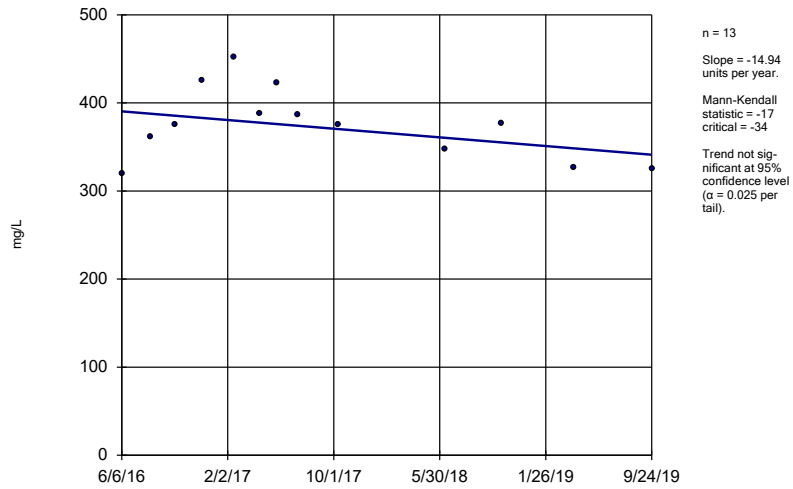
BGWC-7



Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Sen's Slope Estimator

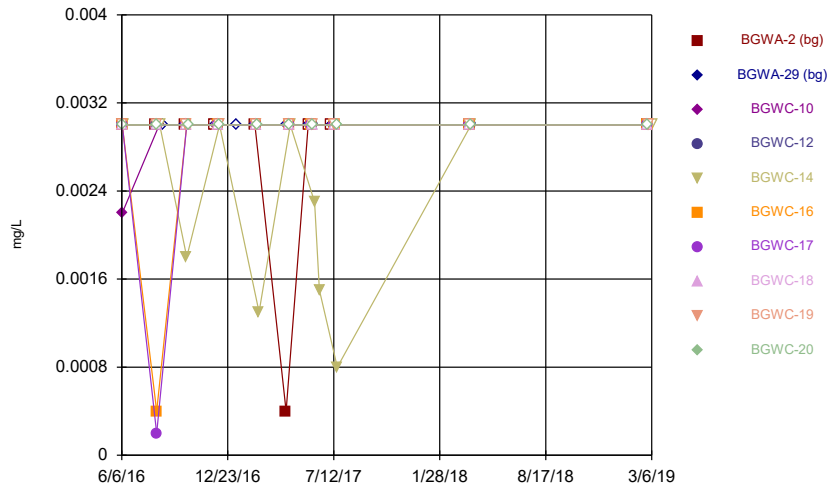
BGWC-9



Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:23 PM

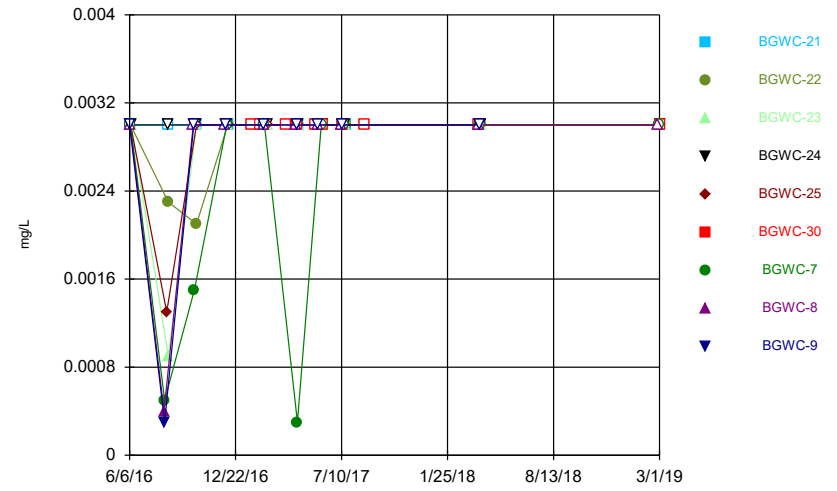
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



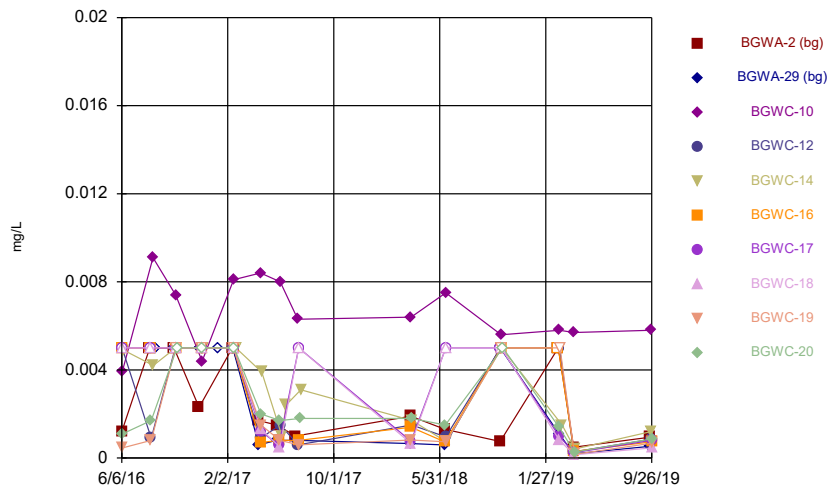
Constituent: Antimony Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



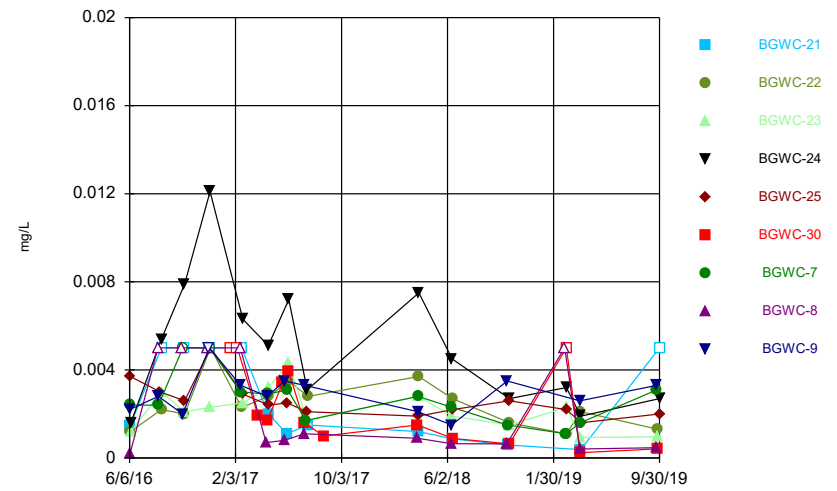
Constituent: Antimony Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



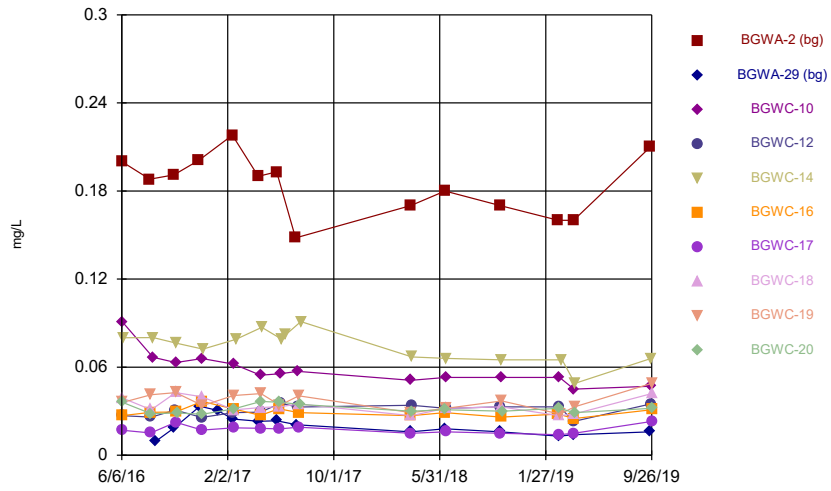
Constituent: Arsenic Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



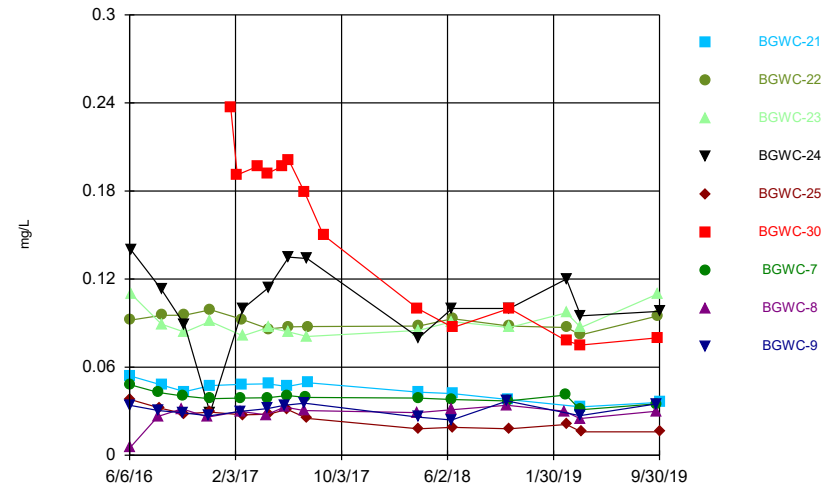
Constituent: Arsenic Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



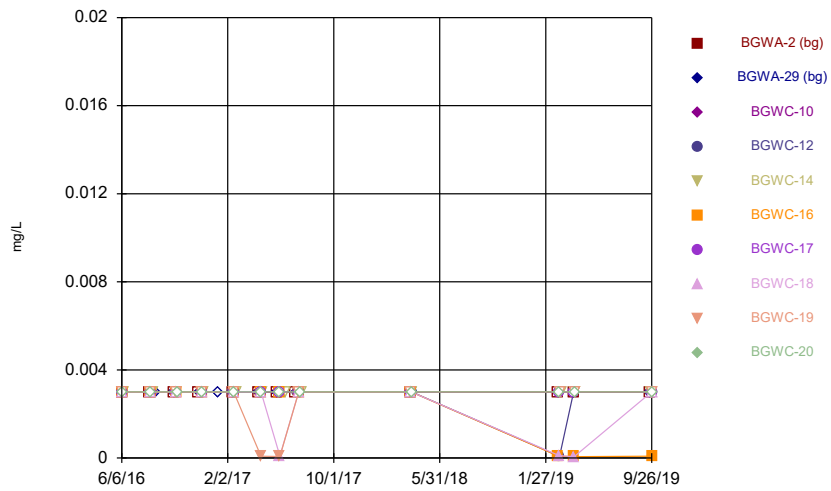
Constituent: Barium Analysis Run 12/12/2019 5:29 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



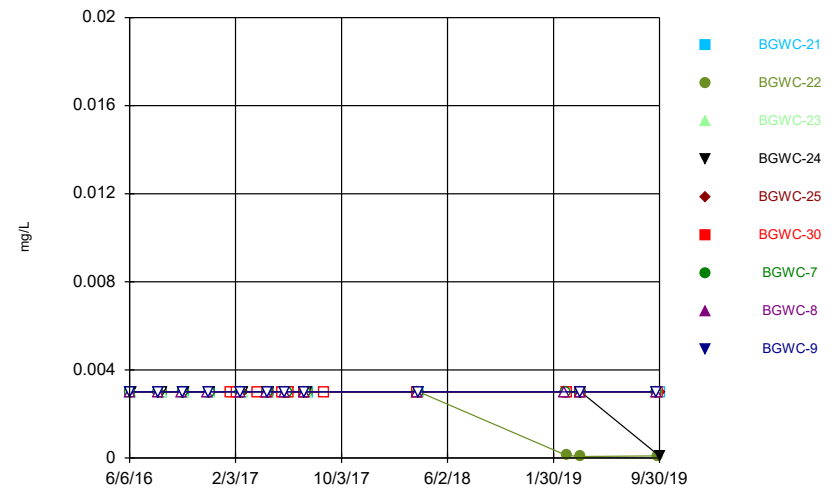
Constituent: Barium Analysis Run 12/12/2019 5:29 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



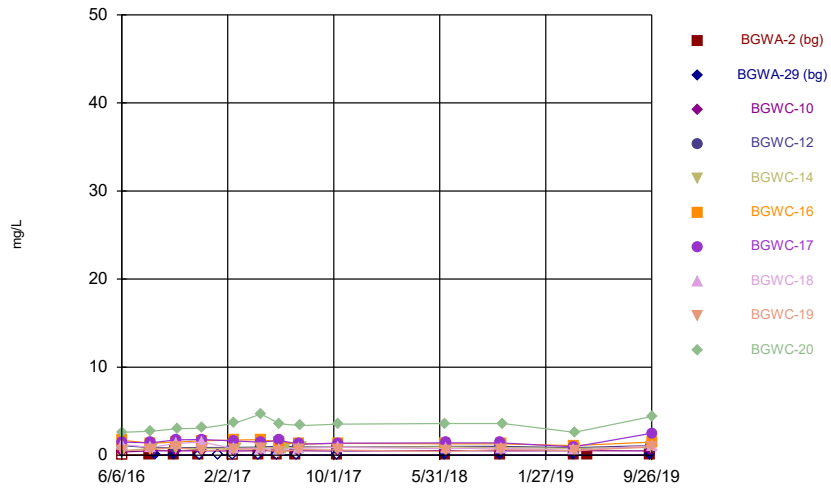
Constituent: Beryllium Analysis Run 12/12/2019 5:29 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



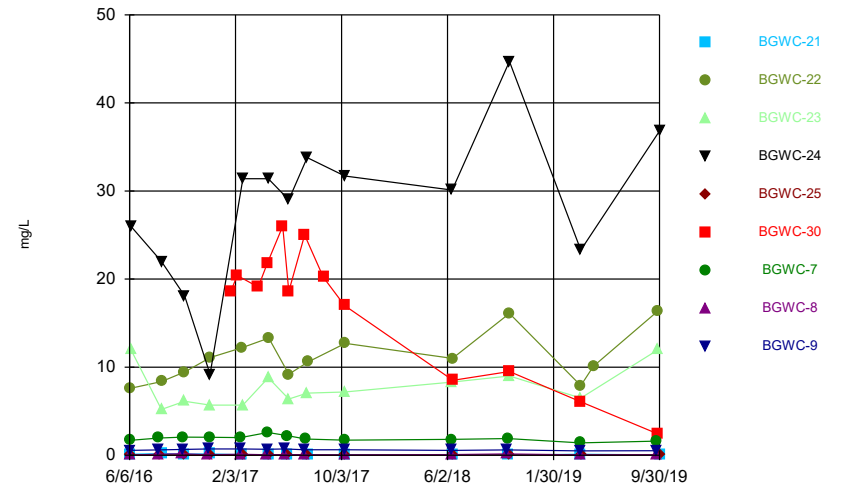
Constituent: Beryllium Analysis Run 12/12/2019 5:29 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



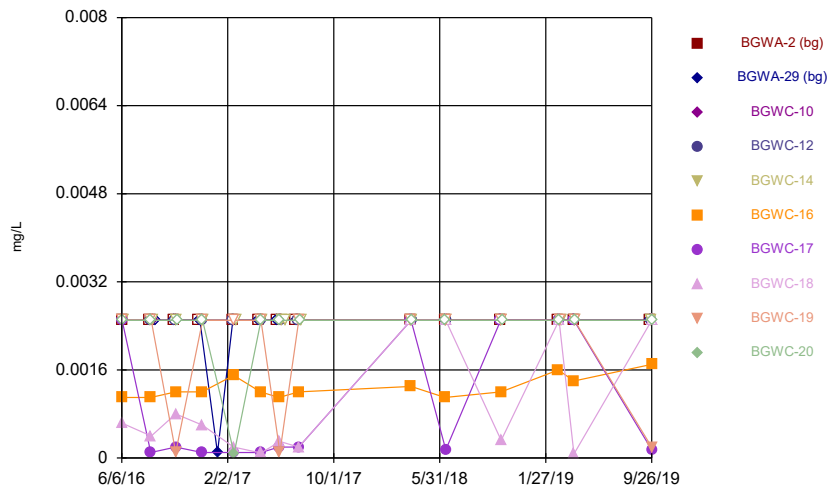
Constituent: Boron Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



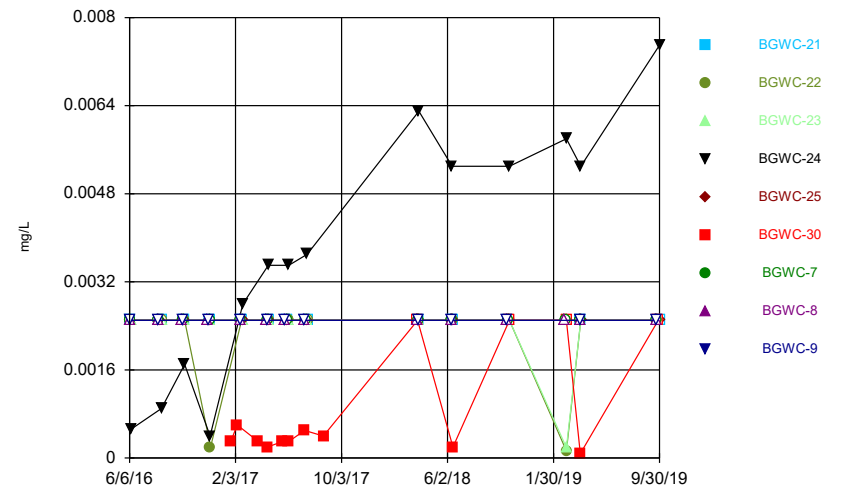
Constituent: Boron Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



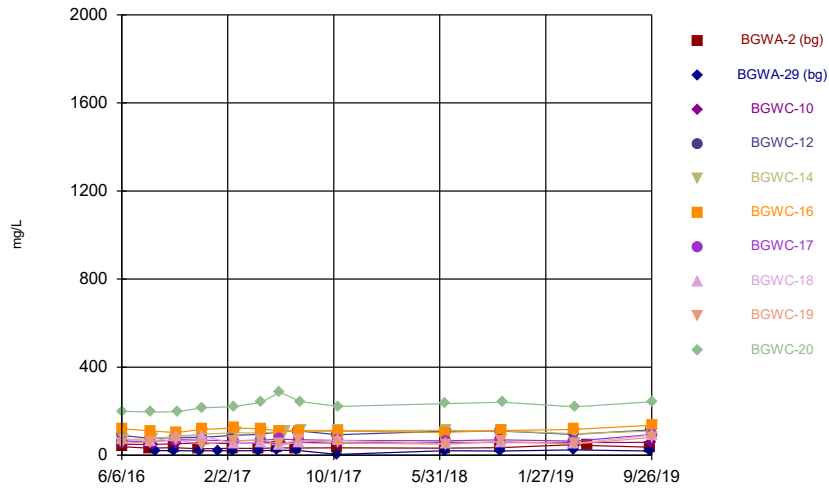
Constituent: Cadmium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



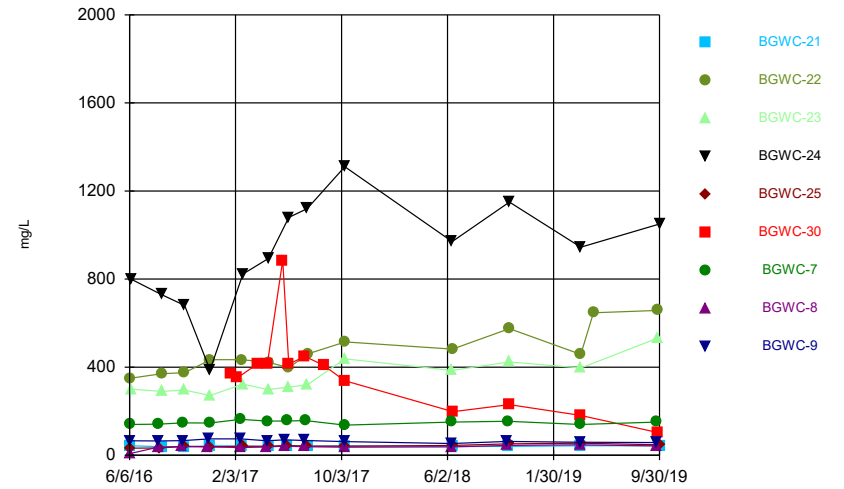
Constituent: Cadmium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



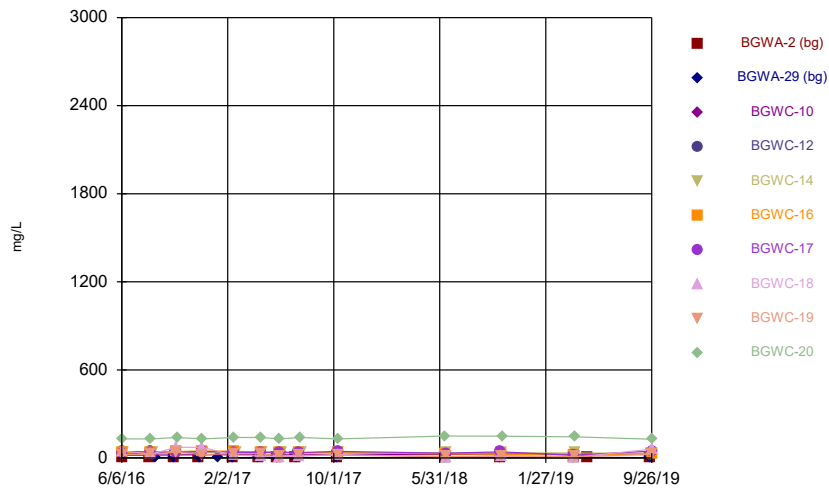
Constituent: Calcium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



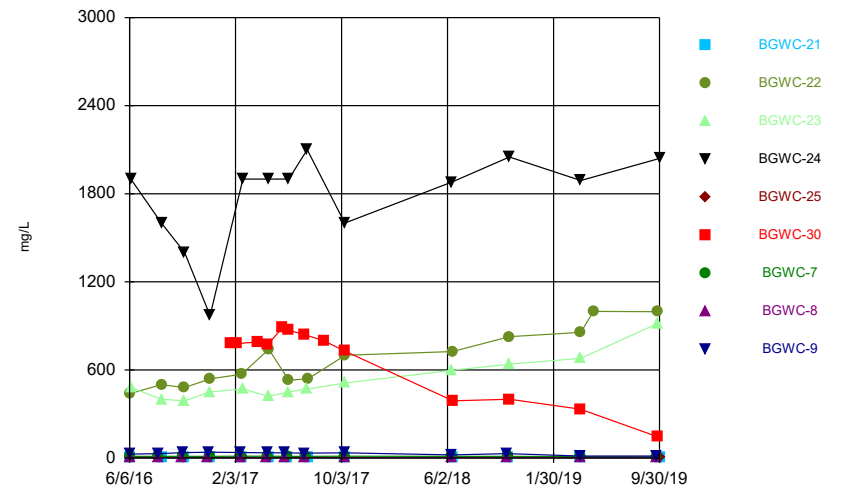
Constituent: Calcium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



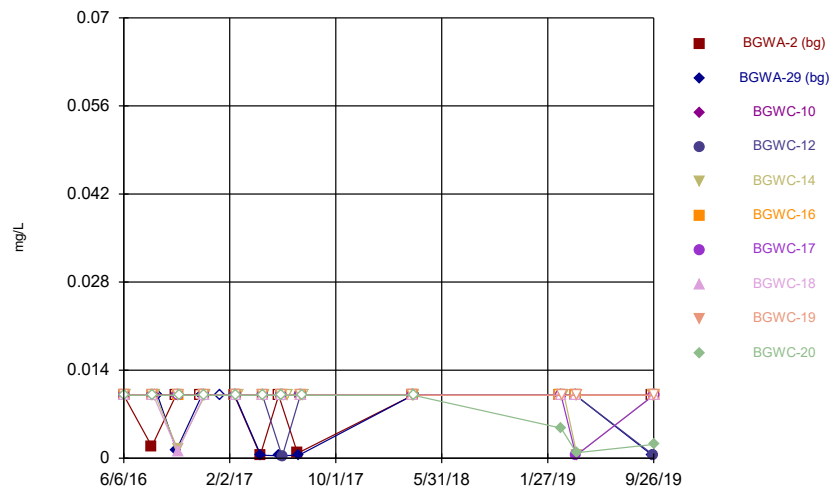
Constituent: Chloride Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



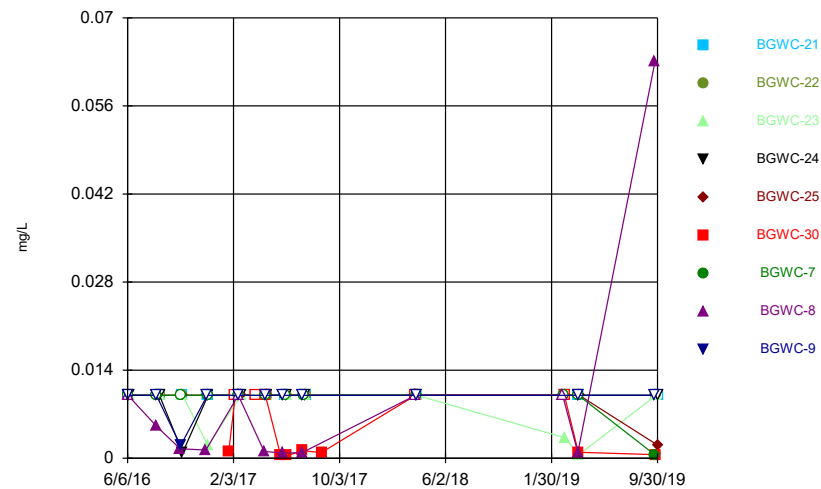
Constituent: Chloride Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



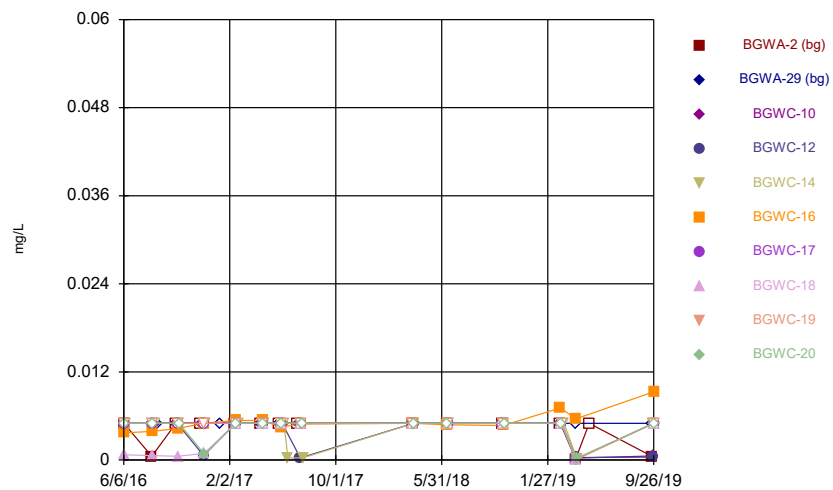
Constituent: Chromium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



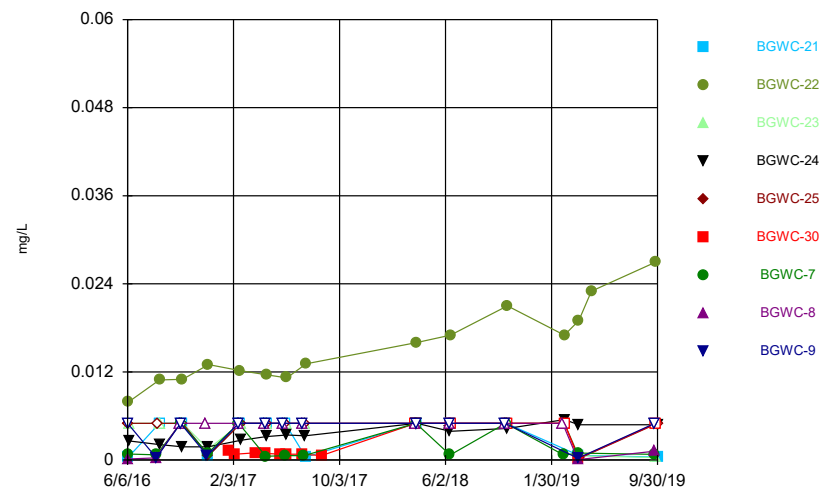
Constituent: Chromium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



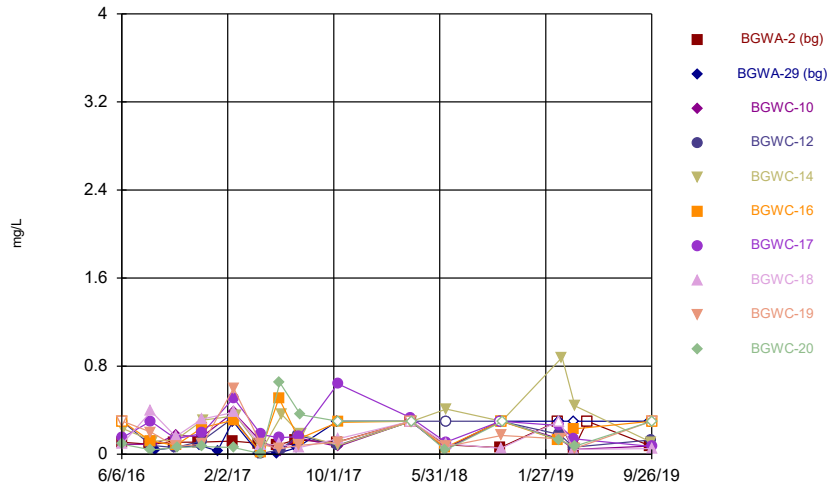
Constituent: Cobalt Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



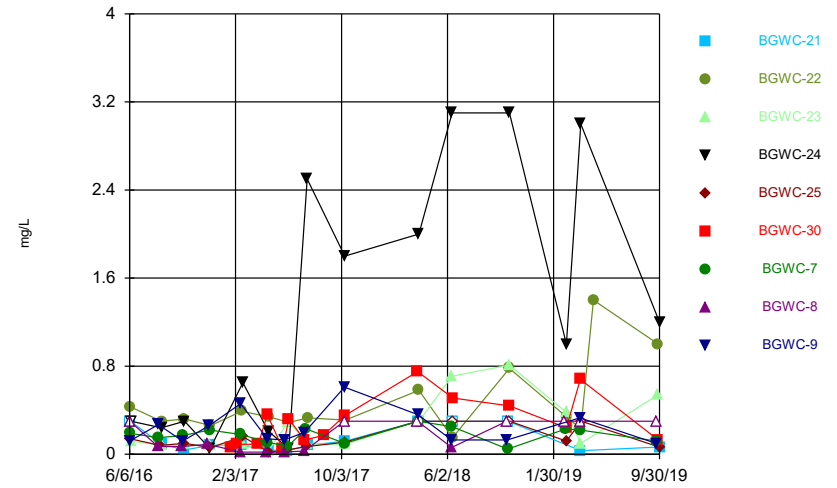
Constituent: Cobalt Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



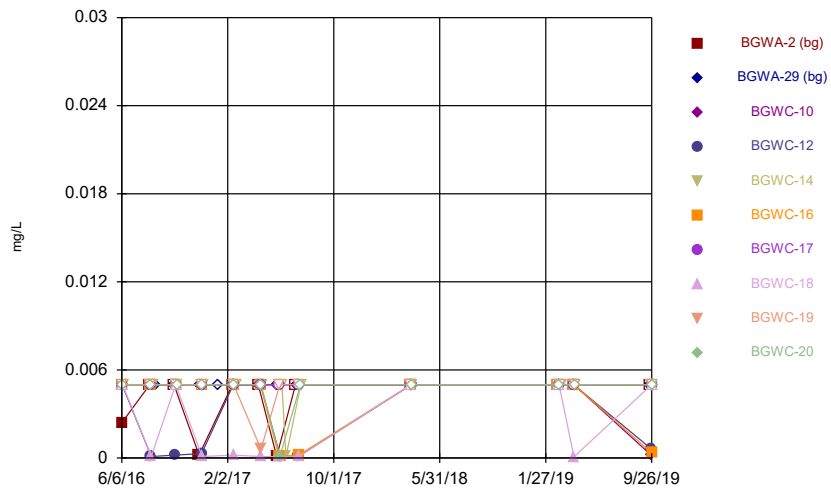
Constituent: Fluoride Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



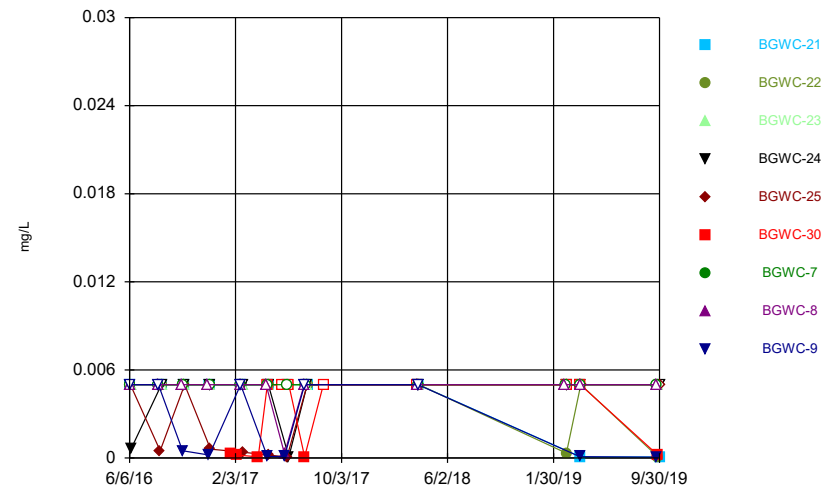
Constituent: Fluoride Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



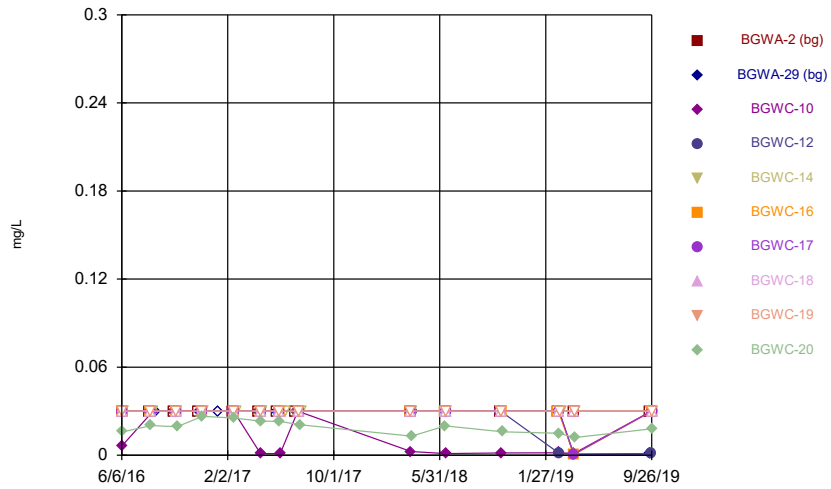
Constituent: Lead Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



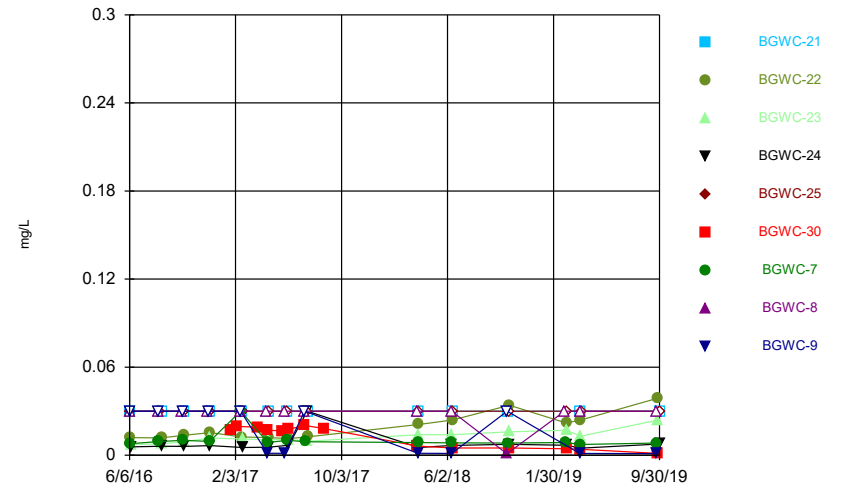
Constituent: Lead Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



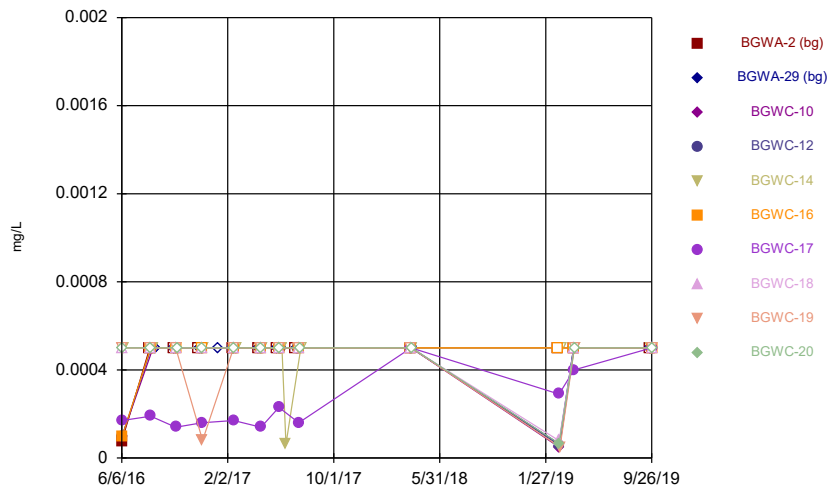
Constituent: Lithium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



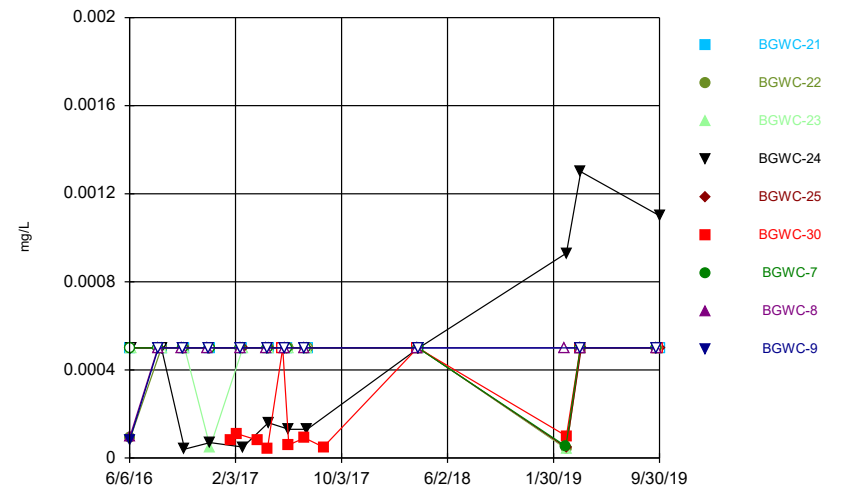
Constituent: Lithium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



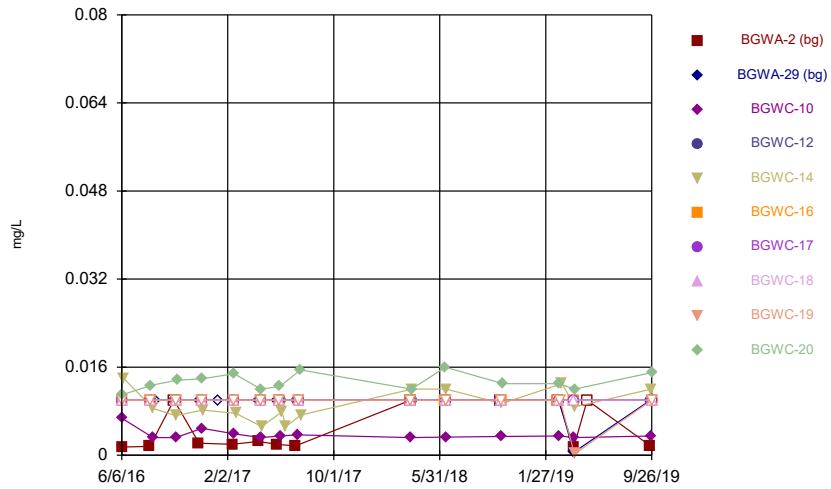
Constituent: Mercury Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



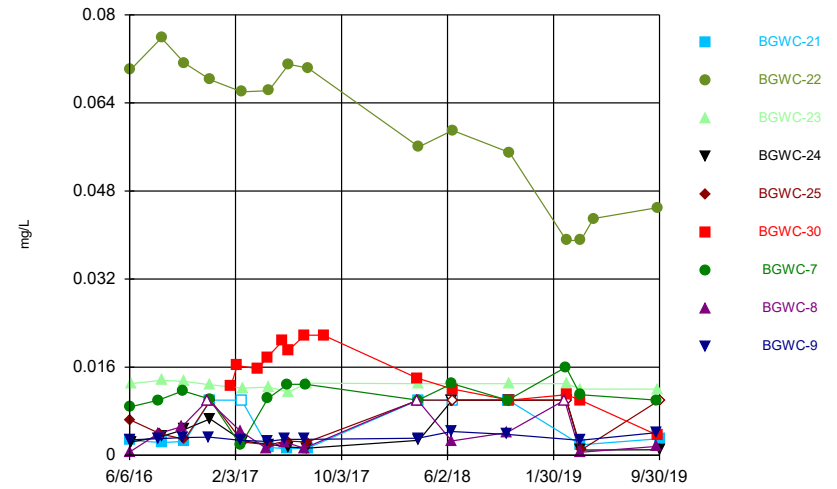
Constituent: Mercury Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



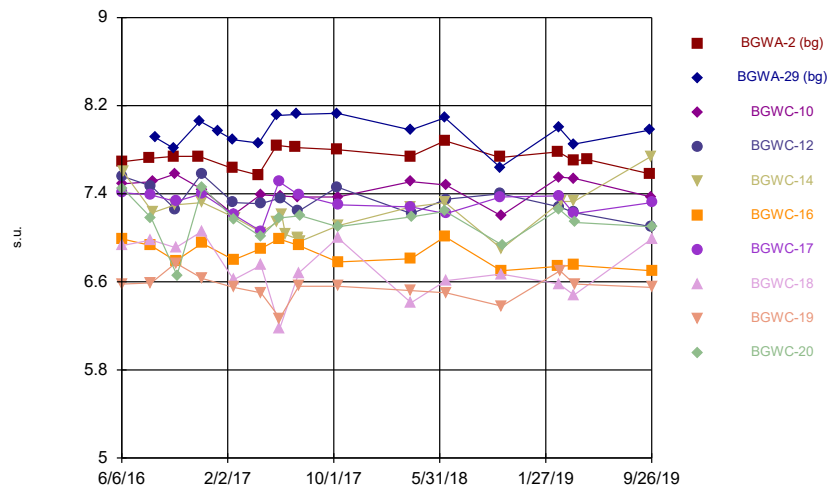
Constituent: Molybdenum Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



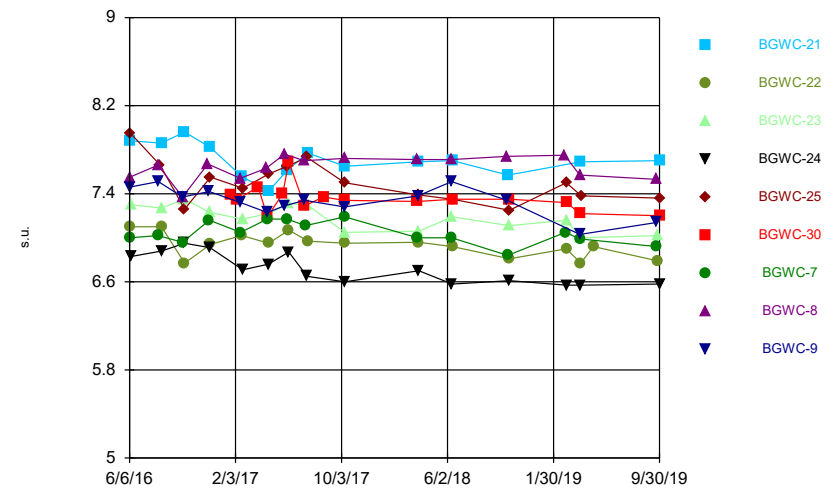
Constituent: Molybdenum Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



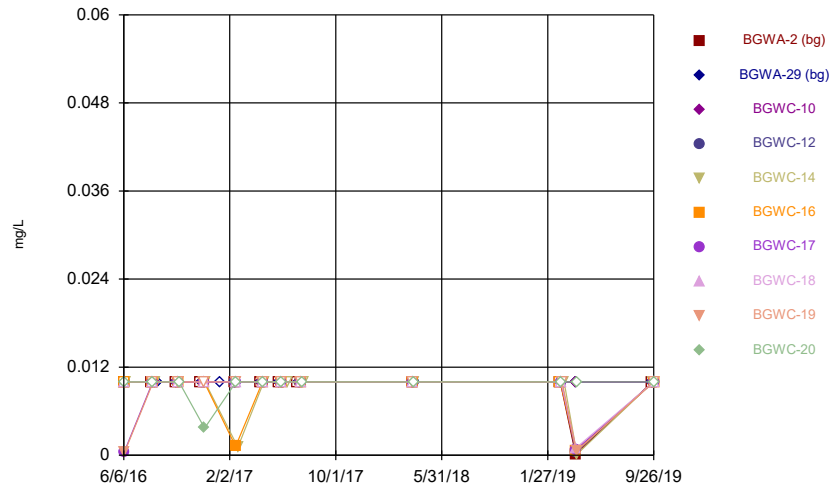
Constituent: pH Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



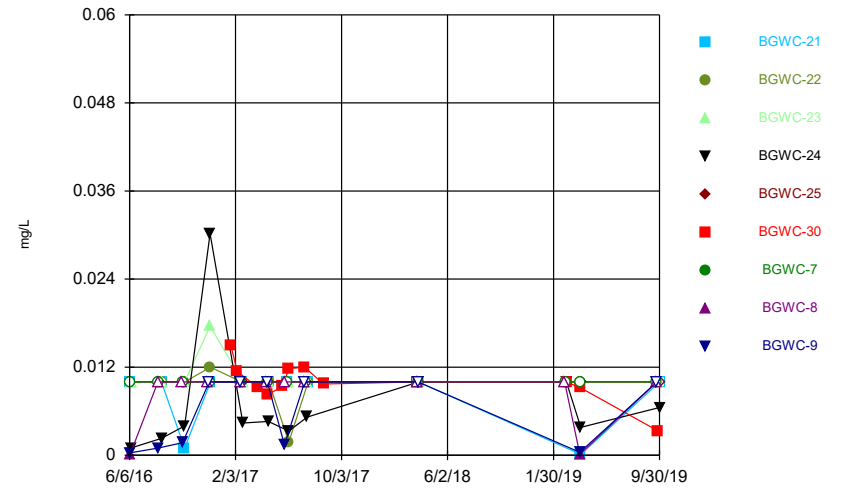
Constituent: pH Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



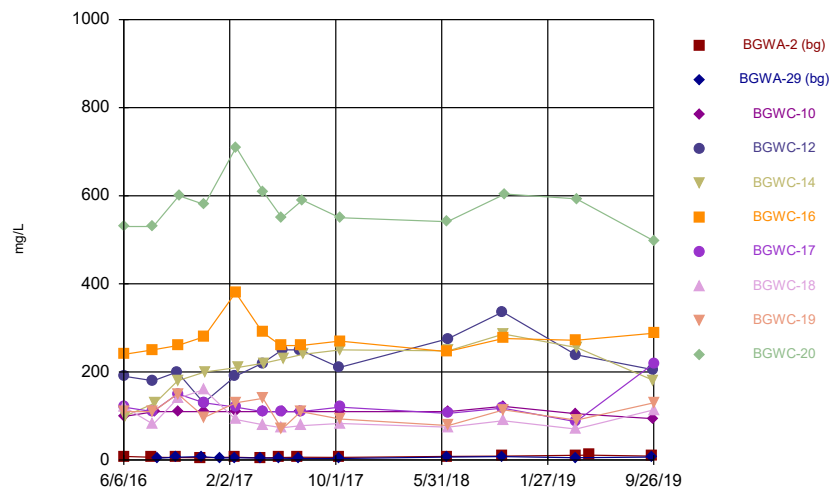
Constituent: Selenium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



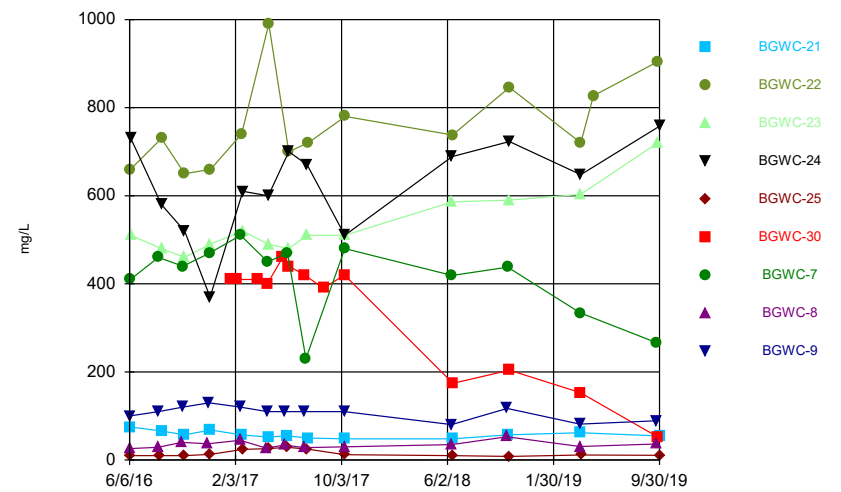
Constituent: Selenium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



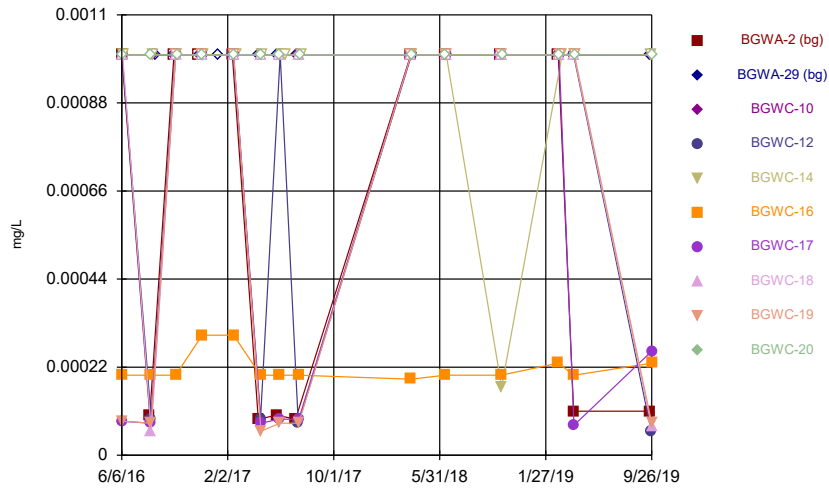
Constituent: Sulfate Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



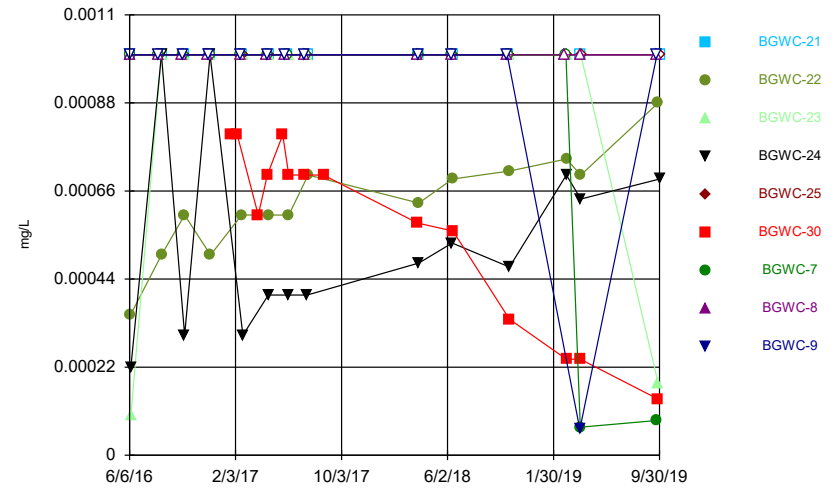
Constituent: Sulfate Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



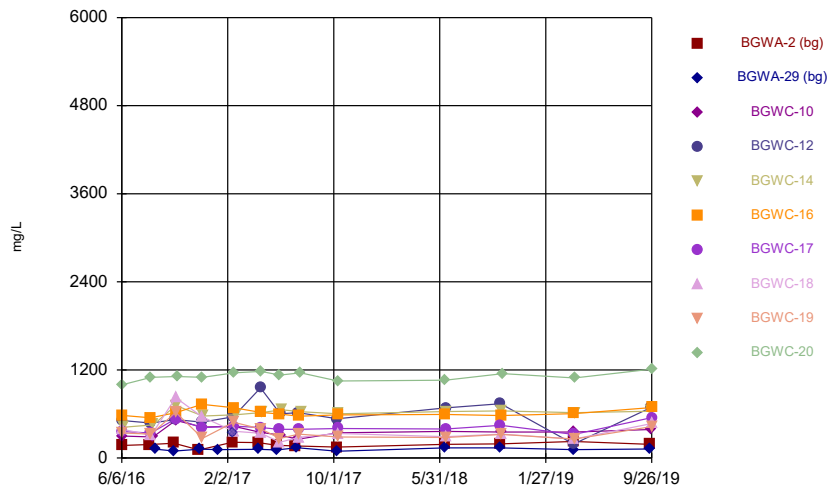
Constituent: Thallium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



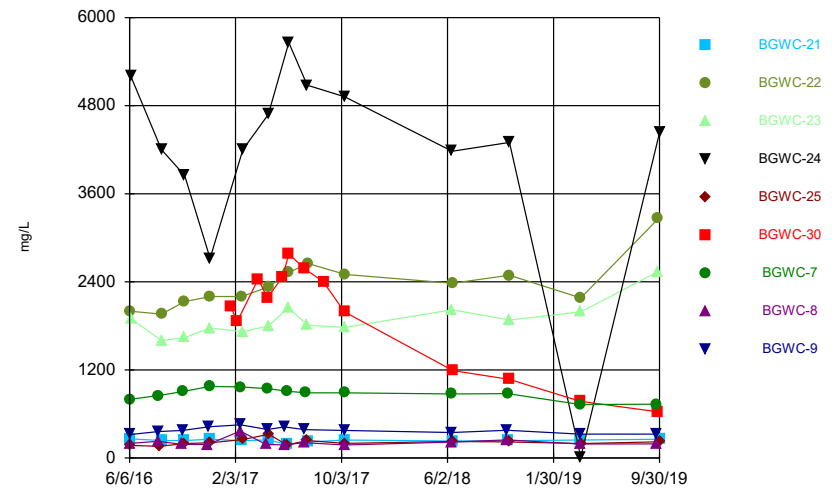
Constituent: Thallium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



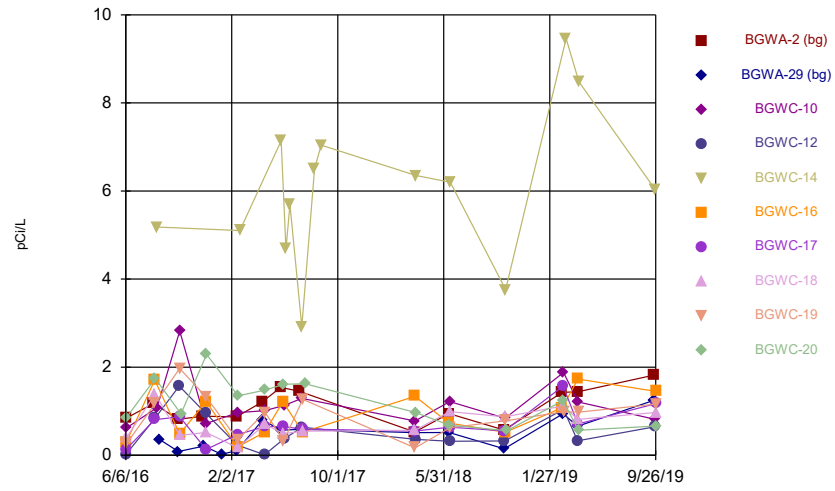
Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



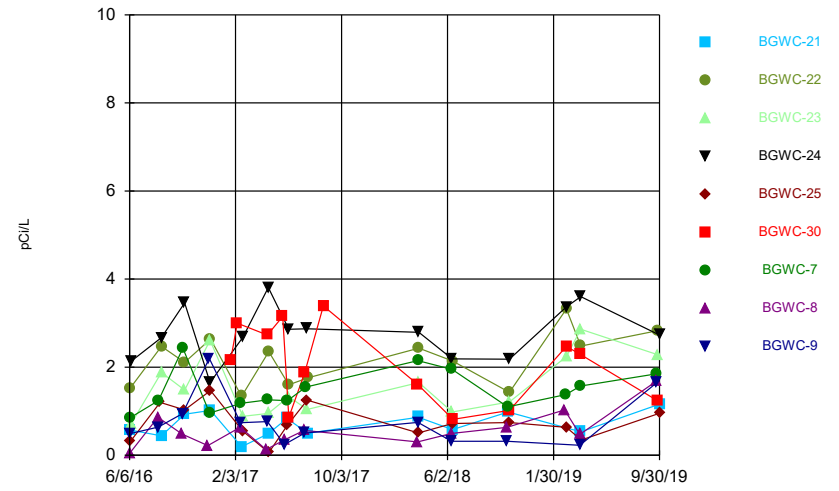
Constituent: Total Dissolved Solids Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



Constituent: Total Radium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Time Series



Constituent: Total Radium Analysis Run 12/12/2019 5:29 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Assessment Monitoring Program
Statistical Analysis Package
Plant Bowen Ash Pond 1 (AP-1)

April 2019 event (AM 01)

GA EPD Based Groundwater
Protection Standards Statistical
Analysis Package

AM 01

Tolerance Limit

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/18/2019, 3:30 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper 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>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	20	95	n/a	0.3585	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	26	38.46	n/a	0.2635	NP Inter(normal...
Barium (mg/L)	n/a	0.218	n/a	n/a	n/a	26	0	n/a	0.2635	NP Inter(normal...
Beryllium (mg/L)	n/a	0.003	n/a	n/a	n/a	22	100	n/a	0.3235	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	26	96.15	n/a	0.2635	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	22	68.18	n/a	0.3235	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.01	n/a	n/a	n/a	26	92.31	n/a	0.2635	NP Inter(NDs)
Fluoride (mg/L)	n/a	0.2073	n/a	n/a	n/a	28	28.57	x^(1/3)	0.05	Inter
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	22	86.36	n/a	0.3235	NP Inter(NDs)
Lithium (mg/L)	n/a	0.05	n/a	n/a	n/a	26	96.15	n/a	0.2635	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	22	90.91	n/a	0.3235	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	26	65.38	n/a	0.2635	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	n/a	n/a	22	95.45	n/a	0.3235	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	26	80.77	n/a	0.2635	NP Inter(NDs)
Total Radium (pCi/L)	n/a	1.761	n/a	n/a	n/a	26	0	No	0.05	Inter

Table F-2
EPD Based Groundwater Protection Standards
Plant Bowen - Ash Pond 1
Bartow County, Georgia

Constituent	CAS	Units	EPA MCL	Statistically Derived Upper Tolerance Limits for Background	GWPS ¹
Antimony	7440-36-0	mg/L	0.006	0.003	0.006
Arsenic	7440-38-2	mg/L	0.01	0.005	0.01
Barium	7440-39-3	mg/L	2	0.22	2
Beryllium	7440-41-7	mg/L	0.004	0.003	0.004
Cadmium	7440-43-9	mg/L	0.005	0.001	0.005
Chromium	7440-47-3	mg/L	0.1	0.01	0.1
Cobalt ²	7440-48-4	mg/L	N/A	0.01	0.01
Fluoride	16984-48-8	mg/L	4	0.21	4
Lead ²	7439-92-1	mg/L	N/A	0.005	0.005
Lithium ²	7439-93-2	mg/L	N/A	0.05	0.05
Mercury	7439-97-6	mg/L	0.002	0.0002	0.002
Molybdenum ²	7439-98-7	mg/L	N/A	0.01	0.01
Selenium	7782-49-2	mg/L	0.05	0.01	0.05
Thallium	7440-28-0	mg/L	0.002	0.001	0.002
Total Radium	7440-14-4	pCi/L	5	1.76	5

Notes:

EPA MCL - U.S. Environmental Protection Agency, Maximum Contaminant Level

GWPS - Groundwater Protection Standards

mg/L - milligram per liter

N/A - Not Available

pCi/L - Picocuries per liter

¹GWPS selected as the greater value between the EPA MCL and the background Upper Tolerance Limit.

²Constituent without established EPA MCL.

Confidence Interval (EPD) - Significant Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:37 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	BGWC-22	0.01672	0.01111	0.01	Yes	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-20	0.01433	0.01213	0.01	Yes	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-22	0.07094	0.05317	0.01	Yes	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-23	0.01321	0.01233	0.01	Yes	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-30	0.01886	0.01234	0.01	Yes	13	0	No	0.01	Param.

Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:37 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BGWC-10	0.007834	0.00549	0.01	No	13	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-12	0.001051	0.0004674	0.01	No	13	46.15	No	0.01	Param.
Arsenic (mg/L)	BGWC-14	0.00344	0.00133	0.01	No	14	28.57	No	0.01	Param.
Arsenic (mg/L)	BGWC-16	0.0025	0.0007	0.01	No	13	53.85	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-17	0.0025	0.0006	0.01	No	13	61.54	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-18	0.0025	0.0005	0.01	No	13	61.54	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-19	0.0009461	0.0004034	0.01	No	13	38.46	sqrt(x)	0.01	Param.
Arsenic (mg/L)	BGWC-20	0.001734	0.0009353	0.01	No	13	30.77	No	0.01	Param.
Arsenic (mg/L)	BGWC-21	0.001447	0.0006695	0.01	No	12	33.33	No	0.01	Param.
Arsenic (mg/L)	BGWC-22	0.002928	0.001764	0.01	No	13	7.692	No	0.01	Param.
Arsenic (mg/L)	BGWC-23	0.002961	0.001612	0.01	No	13	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-24	0.007462	0.003076	0.01	No	13	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-25	0.002872	0.002082	0.01	No	13	7.692	No	0.01	Param.
Arsenic (mg/L)	BGWC-30	0.002499	0.0008552	0.01	No	13	23.08	No	0.01	Param.
Arsenic (mg/L)	BGWC-7	0.002693	0.001678	0.01	No	13	15.38	No	0.01	Param.
Arsenic (mg/L)	BGWC-8	0.0008728	0.000443	0.01	No	13	38.46	sqrt(x)	0.01	Param.
Arsenic (mg/L)	BGWC-9	0.003183	0.002167	0.01	No	12	8.333	No	0.01	Param.
Barium (mg/L)	BGWC-10	0.06779	0.05083	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-12	0.03289	0.02731	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-14	0.08196	0.06645	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-16	0.03123	0.02673	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-17	0.01872	0.01525	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-18	0.03678	0.02951	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-19	0.03986	0.03245	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-20	0.03404	0.02935	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-21	0.04957	0.04071	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BGWC-22	0.0938	0.08677	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-23	0.09456	0.08307	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-24	0.1254	0.08209	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-25	0.03046	0.02056	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-30	0.1948	0.1105	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-7	0.04234	0.03674	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-8	0.03195	0.0245	2	No	13	0	x^2	0.01	Param.
Barium (mg/L)	BGWC-9	0.03368	0.02725	2	No	12	0	No	0.01	Param.
Beryllium (mg/L)	BGWC-10	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-12	0.0015	0.000076	0.004	No	11	90.91	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-14	0.0015	0.0015	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-16	0.0015	0.000063	0.004	No	11	81.82	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-17	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-18	0.0015	0.000052	0.004	No	11	72.73	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-19	0.0015	0.00007	0.004	No	11	81.82	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-20	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-21	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BGWC-22	0.0015	0.000067	0.004	No	11	81.82	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-23	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-24	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-25	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-30	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-7	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-8	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)

Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:37 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Beryllium (mg/L)	BGWC-9	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BGWC-10	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-12	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-14	0.0005	0.0005	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-16	0.001366	0.001126	0.005	No	13	0	No	0.01	Param.
Cadmium (mg/L)	BGWC-17	0.0005	0.0001	0.005	No	13	38.46	No	0.01	NP (normality)
Cadmium (mg/L)	BGWC-18	0.0005298	0.0001691	0.005	No	13	23.08	No	0.01	Param.
Cadmium (mg/L)	BGWC-19	0.0005	0.0001	0.005	No	13	84.62	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-20	0.0005	0.00008	0.005	No	13	92.31	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-21	0.0005	0.0005	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-22	0.0005	0.0002	0.005	No	13	84.62	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-23	0.0005	0.00019	0.005	No	13	92.31	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-24	0.005009	0.001917	0.005	No	13	0	No	0.01	Param.
Cadmium (mg/L)	BGWC-25	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-30	0.0003871	0.0001161	0.005	No	13	23.08	No	0.01	Param.
Cadmium (mg/L)	BGWC-7	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-8	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-9	0.0005	0.0005	0.005	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-10	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-12	0.005	0.0003	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-14	0.005	0.0014	0.1	No	12	83.33	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-16	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-17	0.005	0.00044	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-18	0.005	0.0011	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-19	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-20	0.005	0.00088	0.1	No	11	81.82	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-21	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BGWC-22	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-23	0.005	0.00057	0.1	No	11	72.73	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-24	0.005	0.0009	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-25	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-30	0.001071	0.0005112	0.1	No	11	45.45	ln(x)	0.01	Param.
Chromium (mg/L)	BGWC-7	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-8	0.005	0.0008	0.1	No	11	36.36	No	0.006	NP (normality)
Chromium (mg/L)	BGWC-9	0.005	0.002	0.1	No	10	90	No	0.011	NP (NDs)
Cobalt (mg/L)	BGWC-10	0.005	0.00027	0.01	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-12	0.005	0.00034	0.01	No	13	76.92	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-14	0.005	0.0003	0.01	No	14	78.57	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-16	0.005584	0.004308	0.01	No	13	7.692	No	0.01	Param.
Cobalt (mg/L)	BGWC-17	0.005	0.00015	0.01	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-18	0.005	0.0005	0.01	No	13	61.54	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-19	0.005	0.000072	0.01	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-20	0.005	0.0008	0.01	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-21	0.005	0.00041	0.01	No	12	66.67	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-22	0.01672	0.01111	0.01	Yes	13	0	No	0.01	Param.
Cobalt (mg/L)	BGWC-23	0.005	0.0015	0.01	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-24	0.004325	0.002505	0.01	No	13	7.692	No	0.01	Param.
Cobalt (mg/L)	BGWC-25	0.005	0.0006	0.01	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-30	0.0008892	0.0003534	0.01	No	13	30.77	ln(x)	0.01	Param.
Cobalt (mg/L)	BGWC-7	0.005	0.0006	0.01	No	13	30.77	No	0.01	NP (normality)

Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:37 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	BGWC-8	0.005	0.00013	0.01	No	13	76.92	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-9	0.005	0.0003	0.01	No	12	75	No	0.01	NP (NDs)
Fluoride (mg/L)	BGWC-10	0.1765	0.0685	4	No	14	14.29	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-12	0.1616	0.04315	4	No	14	28.57	No	0.01	Param.
Fluoride (mg/L)	BGWC-14	0.4265	0.1206	4	No	14	14.29	No	0.01	Param.
Fluoride (mg/L)	BGWC-16	0.2735	0.09333	4	No	14	21.43	No	0.01	Param.
Fluoride (mg/L)	BGWC-17	0.321	0.143	4	No	14	7.143	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BGWC-18	0.2229	0.07721	4	No	14	14.29	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-19	0.1793	0.07155	4	No	14	14.29	ln(x)	0.01	Param.
Fluoride (mg/L)	BGWC-20	0.184	0.02696	4	No	14	21.43	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-21	0.07791	0.03087	4	No	13	30.77	No	0.01	Param.
Fluoride (mg/L)	BGWC-22	0.4711	0.2503	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	BGWC-23	0.2581	0.07169	4	No	14	14.29	ln(x)	0.01	Param.
Fluoride (mg/L)	BGWC-24	2.171	0.4218	4	No	14	7.143	No	0.01	Param.
Fluoride (mg/L)	BGWC-25	0.1197	0.06028	4	No	14	28.57	No	0.01	Param.
Fluoride (mg/L)	BGWC-30	0.4642	0.1415	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	BGWC-7	0.2108	0.1202	4	No	14	7.143	No	0.01	Param.
Fluoride (mg/L)	BGWC-8	0.15	0.02	4	No	14	42.86	No	0.01	NP (normality)
Fluoride (mg/L)	BGWC-9	0.3652	0.1363	4	No	13	0	No	0.01	Param.
Lead (mg/L)	BGWC-10	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-12	0.0025	0.0001	0.005	No	11	54.55	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-14	0.0025	0.00009	0.005	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-16	0.0025	0.0001	0.005	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-17	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-18	0.0025	0.000081	0.005	No	11	36.36	No	0.006	NP (normality)
Lead (mg/L)	BGWC-19	0.0025	0.0006	0.005	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-20	0.0025	0.0001	0.005	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-21	0.0025	0.000068	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	BGWC-22	0.0025	0.00033	0.005	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-23	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-24	0.0025	0.00007	0.005	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-25	0.0025	0.00007	0.005	No	11	54.55	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-30	0.0025	0.00008	0.005	No	11	63.64	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-7	0.0025	0.0025	0.005	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-8	0.0025	0.0003	0.005	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-9	0.0025	0.000092	0.005	No	10	50	No	0.011	NP (normality)
Lithium (mg/L)	BGWC-10	0.025	0.0011	0.05	No	13	38.46	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-12	0.025	0.0011	0.05	No	13	84.62	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-14	0.025	0.025	0.05	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-16	0.025	0.00049	0.05	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-17	0.025	0.00069	0.05	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-18	0.025	0.025	0.05	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-19	0.025	0.025	0.05	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-20	0.02268	0.01584	0.05	No	13	0	No	0.01	Param.
Lithium (mg/L)	BGWC-21	0.025	0.025	0.05	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-22	0.02199	0.01238	0.05	No	13	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	BGWC-23	0.0139	0.009483	0.05	No	13	0	No	0.01	Param.
Lithium (mg/L)	BGWC-24	0.0075	0.0053	0.05	No	13	7.692	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-25	0.025	0.025	0.05	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-30	0.01838	0.01127	0.05	No	13	0	x^3	0.01	Param.

Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:37 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BGWC-7	0.0102	0.0079	0.05	No	13	7.692	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-8	0.025	0.001	0.05	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-9	0.025	0.0012	0.05	No	12	58.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-10	0.0001	0.000048	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-12	0.0001	0.000058	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-14	0.0001	0.000062	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-16	0.0001	0.000098	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-17	0.0002657	0.0001252	0.002	No	11	9.091	No	0.01	Param.
Mercury (mg/L)	BGWC-18	0.0001	0.000079	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-19	0.0001	0.00005	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-20	0.0001	0.000066	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-21	0.0001	0.0001	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BGWC-22	0.0001	0.000042	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-23	0.0001	0.000044	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-24	0.0003115	0.00004586	0.002	No	11	27.27	ln(x)	0.01	Param.
Mercury (mg/L)	BGWC-25	0.0001	0.000047	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-30	0.00009315	0.0000521	0.002	No	11	27.27	No	0.01	Param.
Mercury (mg/L)	BGWC-7	0.0001	0.000053	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-8	0.0001	0.000097	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-9	0.0001	0.00008	0.002	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	BGWC-10	0.0049	0.0032	0.01	No	13	0	No	0.01	NP (normality)
Molybdenum (mg/L)	BGWC-12	0.005	0.005	0.01	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-14	0.01097	0.007074	0.01	No	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-16	0.005	0.005	0.01	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-17	0.005	0.005	0.01	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-18	0.005	0.005	0.01	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-19	0.005	0.00023	0.01	No	13	92.31	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-20	0.01433	0.01213	0.01	Yes	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-21	0.002329	0.001438	0.01	No	12	41.67	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	BGWC-22	0.07094	0.05317	0.01	Yes	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-23	0.01321	0.01233	0.01	Yes	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-24	0.004028	0.001602	0.01	No	13	23.08	No	0.01	Param.
Molybdenum (mg/L)	BGWC-25	0.004007	0.001616	0.01	No	13	38.46	No	0.01	Param.
Molybdenum (mg/L)	BGWC-30	0.01886	0.01234	0.01	Yes	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-7	0.0131	0.008225	0.01	No	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-8	0.003806	0.001325	0.01	No	13	23.08	No	0.01	Param.
Molybdenum (mg/L)	BGWC-9	0.003499	0.002701	0.01	No	12	0	No	0.01	Param.
Selenium (mg/L)	BGWC-10	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-12	0.005	0.0004	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-14	0.005	0.0011	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-16	0.005	0.0006	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-17	0.005	0.0004	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-18	0.005	0.001	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-19	0.005	0.00043	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-20	0.005	0.0037	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-21	0.005	0.00012	0.05	No	10	80	No	0.011	NP (NDs)
Selenium (mg/L)	BGWC-22	0.005	0.0018	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-23	0.005	0.005	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-24	0.007735	0.002032	0.05	No	11	18.18	ln(x)	0.01	Param.
Selenium (mg/L)	BGWC-25	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)

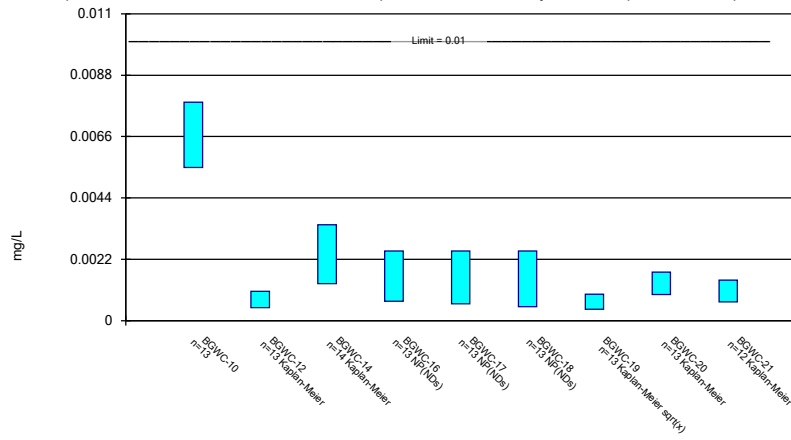
Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:37 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	BGWC-30	0.01219	0.007972	0.05	No	11	9.091	No	0.01	Param.
Selenium (mg/L)	BGWC-7	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-8	0.005	0.000048	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-9	0.001437	0.0004511	0.05	No	10	50	sqrt(x)	0.01	Param.
Thallium (mg/L)	BGWC-10	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-12	0.0005	0.00009	0.002	No	13	76.92	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-14	0.0005	0.00017	0.002	No	14	92.86	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-16	0.00023	0.00019	0.002	No	13	0	No	0.01	NP (normality)
Thallium (mg/L)	BGWC-17	0.0005	0.00008	0.002	No	13	53.85	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-18	0.0005	0.00006	0.002	No	13	92.31	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-19	0.0005	0.00008	0.002	No	13	61.54	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-20	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-21	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-22	0.0006901	0.0005283	0.002	No	13	0	No	0.01	Param.
Thallium (mg/L)	BGWC-23	0.0005	0.0001	0.002	No	13	92.31	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-24	0.0005277	0.000282	0.002	No	13	15.38	No	0.01	Param.
Thallium (mg/L)	BGWC-25	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-30	0.000747	0.0004469	0.002	No	13	0	No	0.01	Param.
Thallium (mg/L)	BGWC-7	0.0005	0.00007	0.002	No	13	92.31	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-8	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-9	0.0005	0.000065	0.002	No	12	91.67	No	0.01	NP (NDs)
Total Radium (pCi/L)	BGWC-10	1.552	0.8002	5	No	13	0	sqrt(x)	0.01	Param.
Total Radium (pCi/L)	BGWC-12	0.8748	0.2053	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-14	7.375	4.703	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-16	1.277	0.4997	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-17	0.9052	0.3771	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-18	0.9428	0.4489	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-19	1.244	0.4784	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-20	1.611	0.8391	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-21	0.8645	0.4594	5	No	12	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-22	2.549	1.697	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-23	2.037	1.012	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-24	3.269	2.31	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-25	1.033	0.4268	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-30	2.816	1.413	5	No	12	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-7	1.8	1.102	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-8	0.6856	0.2722	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-9	0.9916	0.318	5	No	12	0	sqrt(x)	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

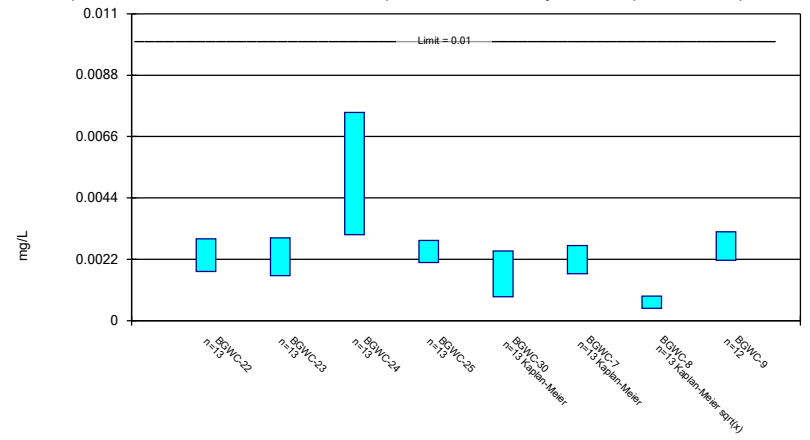
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 11/6/2019 11:29 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

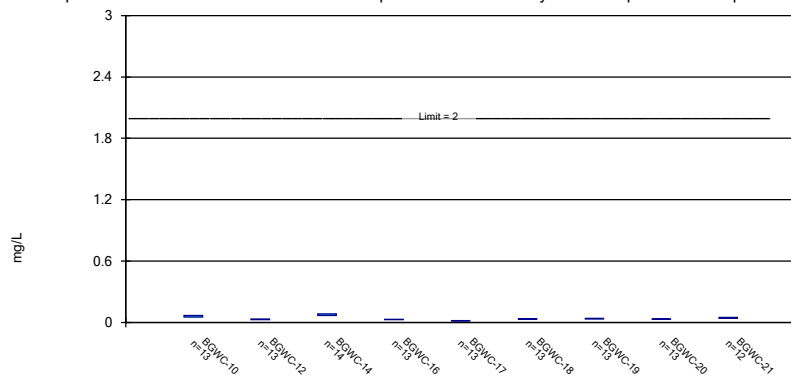
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 11/6/2019 11:29 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

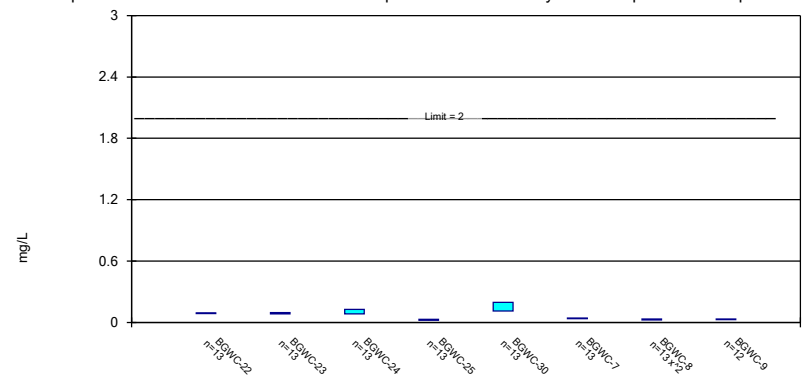
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0039	<0.005		<0.005	<0.005				
6/8/2016						<0.005	0.00046 (J)	0.0011 (J)	0.0015
6/10/2016			0.0049						
8/11/2016				<0.005	<0.005				
8/12/2016		0.0009 (J)				<0.005	0.0008 (J)	0.0017 (J)	
8/16/2016	0.0091								
8/17/2016			0.0042 (J)						
8/18/2016									<0.005
10/6/2016		<0.005							
10/7/2016	0.0074		<0.005	<0.005	<0.005	<0.005	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		<0.005							
12/6/2016	0.0044 (J)			<0.005	<0.005	<0.005			
12/7/2016							<0.005	<0.005	
12/8/2016			<0.005						<0.005
2/15/2017		<0.005							
2/16/2017	0.0081			<0.005	<0.005	<0.005	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	0.0084	0.0009 (J)		0.0007 (J)					
4/19/2017					0.0012 (J)	0.0013 (J)	0.0015 (J)	0.002 (J)	0.002 (J)
4/21/2017			0.0039 (J)						
5/30/2017				0.0008 (J)	0.0006 (J)				
6/1/2017						0.0005 (J)	0.0008 (J)	0.0017 (J)	0.0011 (J)
6/2/2017	0.008	0.0015 (J)							
6/6/2017			0.001 (J)						
6/15/2017			0.0024 (J)						
7/12/2017	0.0063								
7/13/2017		0.0006 (J)							
7/14/2017				0.0008 (J)	<0.005	<0.005	0.0006 (J)		
7/18/2017								0.0018 (J)	0.0015 (J)
7/19/2017			0.0031 (J)						
3/27/2018	0.0064			0.0014 (J)	0.00076 (J)	0.00066 (J)	0.00082 (J)		
3/28/2018		0.0015 (J)						0.0018 (J)	0.0012 (J)
3/29/2018			0.0017 (J)						
6/12/2018				0.00073 (J)					
6/13/2018								0.0015 (J)	
6/14/2018	0.0075	0.00096 (J)			<0.005	<0.005			0.00087 (J)
6/15/2018			0.00074 (J)				0.00074 (J)		
10/17/2018		<0.005			<0.005				
10/18/2018	0.0056			<0.005		<0.005			
10/19/2018			<0.005				<0.005		0.00059 (J)
10/22/2018								<0.005	
2/25/2019				<0.005					
2/27/2019					0.001 (J)	0.00083 (J)		0.0014 (J)	
2/28/2019	0.0058	<0.005							
3/1/2019							<0.005		
3/6/2019			0.0015 (J)						
4/1/2019		0.00028 (J)							
4/2/2019	0.0057			0.0003 (J)	0.00024 (J)	0.00015 (J)			
4/3/2019							0.00017 (J)	0.00027 (J)	0.00038 (J)
4/4/2019			0.00041 (J)						

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.006662	0.001665	0.002418	0.00171	0.001831	0.001803	0.001415	0.00179	0.001595
Std. Dev.	0.001576	0.000864	0.001308	0.000917	0.0009066	0.0009497	0.0009392	0.0006519	0.0007903
Upper Lim.	0.007834	0.001051	0.00344	0.0025	0.0025	0.0025	0.0009461	0.001734	0.001447
Lower Lim.	0.00549	0.0004674	0.00133	0.0007	0.0006	0.0005	0.0004034	0.0009353	0.0006695

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.0022
6/7/2016							0.00018 (J)	
6/8/2016	0.0012 (J)			0.0037		0.0024		
6/9/2016		0.0012 (J)	0.0016					
8/10/2016							<0.005	
8/11/2016						0.0024 (J)		0.0028 (J)
8/15/2016				0.003 (J)				
8/18/2016	0.0022 (J)	0.003 (J)	0.0054					
10/4/2016							<0.005	
10/5/2016								0.002 (J)
10/6/2016						<0.005		
10/10/2016	0.002 (J)	0.0021 (J)	0.0079	0.0026 (J)				
12/2/2016							<0.005	
12/5/2016								<0.005
12/6/2016						<0.005		
12/7/2016		0.0023 (J)	0.0121					
12/8/2016	<0.005			<0.005				
1/23/2017					<0.005			
2/7/2017					<0.005			
2/14/2017							<0.005	
2/15/2017						0.003 (J)		0.0033 (J)
2/17/2017	0.0023 (J)							
2/20/2017		0.0025 (J)	0.0063	0.0029 (J)				
3/27/2017					0.0019 (J)			
4/14/2017							0.0007 (J)	
4/17/2017					0.0017 (J)			0.0028 (J)
4/18/2017						0.0029 (J)		
4/19/2017		0.0032 (J)	0.0051					
4/20/2017	0.0028 (J)			0.0024 (J)				
5/22/2017					0.0034 (J)			
5/26/2017							0.0008 (J)	0.0035 (J)
6/1/2017				0.0025 (J)				
6/2/2017						0.0031 (J)		
6/5/2017	0.0035 (J)	0.0043 (J)	0.0072		0.0039 (J)			
7/10/2017							0.0011 (J)	
7/11/2017					0.0016 (J)			0.0033 (J)
7/14/2017						0.0017 (J)		
7/17/2017		0.0017 (J)	0.0031 (J)	0.0021 (J)				
7/19/2017	0.0028 (J)							
8/23/2017					0.001 (J)			
3/26/2018					0.0015 (J)		0.0009 (J)	
3/27/2018						0.0028 (J)		0.0021 (J)
3/28/2018				0.0019 (J)				
3/29/2018	0.0037 (J)	0.0028 (J)	0.0075 (J)					
6/12/2018							0.00065 (J)	0.0015 (J)
6/13/2018		0.0019 (J)	0.0045 (J)			0.0023 (J)		
6/14/2018	0.0027 (J)			0.0022 (J)				
6/15/2018					0.00089 (J)			
10/16/2018							0.00064 (J)	
10/17/2018								0.0035 (J)
10/18/2018						0.0015 (J)		
10/22/2018	0.0016 (J)	0.0015 (J)	0.0027 (J)	0.0026 (J)	0.00064 (J)			

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.005	
2/28/2019						0.0011 (J)		
3/1/2019	0.0011 (J)	0.0023 (J)	0.0032 (J)	0.0022 (J)	<0.005			
4/1/2019							0.00041 (J)	0.0026 (J)
4/2/2019					0.00024 (J)	0.0016 (J)		
4/3/2019	0.0021 (J)	0.00093 (J)	0.0019 (J)					
4/4/2019				0.0016 (J)				
Mean	0.002346	0.002287	0.005269	0.002477	0.001867	0.002292	0.001375	0.002675
Std. Dev.	0.0007827	0.0009071	0.002949	0.000531	0.001072	0.0006304	0.0009505	0.0006468
Upper Lim.	0.002928	0.002961	0.007462	0.002872	0.002499	0.002693	0.0008728	0.003183
Lower Lim.	0.001764	0.001612	0.003076	0.002082	0.0008552	0.001678	0.000443	0.002167

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.091	0.027		0.027	0.017				
6/8/2016						0.039	0.036	0.036	0.054
6/10/2016			0.08						
8/11/2016				0.0292	0.0152				
8/12/2016		0.026				0.031	0.0412	0.0283	
8/16/2016	0.0667								
8/17/2016			0.0801						
8/18/2016									0.0479
10/6/2016		0.0308							
10/7/2016	0.0631		0.0764	0.0295	0.0225	0.0427	0.0427		
10/10/2016								0.0288	0.0433
12/5/2016		0.0258							
12/6/2016	0.0659			0.0367	0.0171	0.0398			
12/7/2016							0.0338	0.0279	
12/8/2016			0.0723						0.0474
2/15/2017		0.029							
2/16/2017	0.0621			0.0315	0.0187	0.0309	0.0407		
2/17/2017								0.0316	0.0483
2/21/2017			0.0789						
4/18/2017	0.0545	0.0294		0.0272					
4/19/2017					0.0183	0.0325	0.042	0.0367	0.0486
4/21/2017			0.0871						
5/30/2017				0.0316	0.0179				
6/1/2017						0.0331	0.0341	0.0361	0.0468
6/2/2017	0.0555	0.0354							
6/6/2017			0.0789						
6/15/2017			0.0822						
7/12/2017	0.0572								
7/13/2017		0.0329							
7/14/2017				0.029	0.0191	0.0349	0.0405		
7/18/2017								0.0346	0.0494
7/19/2017			0.091						
3/27/2018	0.051			0.027	0.015	0.027	0.029		
3/28/2018		0.034						0.03	0.043
3/29/2018			0.067						
6/12/2018				0.029					
6/13/2018								0.031	
6/14/2018	0.053	0.032			0.016	0.032			0.042
6/15/2018			0.066				0.032		
10/17/2018		0.033			0.015				
10/18/2018	0.053			0.026		0.033			
10/19/2018			0.065				0.037		0.038
10/22/2018								0.03	
2/25/2019				0.028					
2/27/2019					0.014	0.027		0.032	
2/28/2019	0.053	0.033							
3/1/2019							0.028		
3/6/2019			0.065						
4/1/2019		0.023							
4/2/2019	0.045			0.025	0.015	0.028			
4/3/2019							0.033	0.029	0.033
4/4/2019			0.049						

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.05931	0.0301	0.07421	0.02898	0.01698	0.03315	0.03615	0.03169	0.04514
Std. Dev.	0.0114	0.003754	0.01094	0.003025	0.002333	0.004885	0.004978	0.003153	0.005643
Upper Lim.	0.06779	0.03289	0.08196	0.03123	0.01872	0.03678	0.03986	0.03404	0.04957
Lower Lim.	0.05083	0.02731	0.06645	0.02673	0.01525	0.02951	0.03245	0.02935	0.04071

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.034
6/7/2016							0.0051	
6/8/2016	0.092			0.038		0.048		
6/9/2016		0.11	0.14					
8/10/2016							0.0264	
8/11/2016						0.0428		0.0305
8/15/2016				0.0321				
8/18/2016	0.0953	0.0893	0.113					
10/4/2016							0.0316	
10/5/2016								0.0289
10/6/2016						0.0404		
10/10/2016	0.0954	0.0839	0.0888	0.0283				
12/2/2016							0.026	
12/5/2016								0.0269
12/6/2016						0.0385		
12/7/2016		0.0912	0.0289					
12/8/2016	0.0991			0.0294				
1/23/2017					0.237			
2/7/2017					0.191			
2/14/2017							0.0299	
2/15/2017						0.039		0.0299
2/17/2017	0.0927							
2/20/2017		0.0813	0.0999	0.0275				
3/27/2017					0.197			
4/14/2017							0.0275	
4/17/2017					0.192			0.0318
4/18/2017						0.0392		
4/19/2017		0.087	0.114					
4/20/2017	0.086			0.0279				
5/22/2017					0.197			
5/26/2017							0.0328	0.0341
6/1/2017				0.0313				
6/2/2017						0.0407		
6/5/2017	0.0875	0.084	0.135		0.201			
7/10/2017							0.0305	
7/11/2017					0.179			0.0355
7/14/2017						0.0394		
7/17/2017		0.0809	0.134	0.0251				
7/19/2017	0.0877							
8/23/2017					0.15			
3/26/2018					0.1		0.029	
3/27/2018						0.039		0.026
3/28/2018				0.018				
3/29/2018	0.088	0.085	0.08					
6/12/2018							0.031	0.024
6/13/2018		0.091	0.1			0.038		
6/14/2018	0.093			0.019				
6/15/2018					0.087			
10/16/2018							0.034	
10/17/2018								0.037
10/18/2018						0.037		
10/22/2018	0.088	0.087	0.1	0.018	0.1			

Confidence Interval

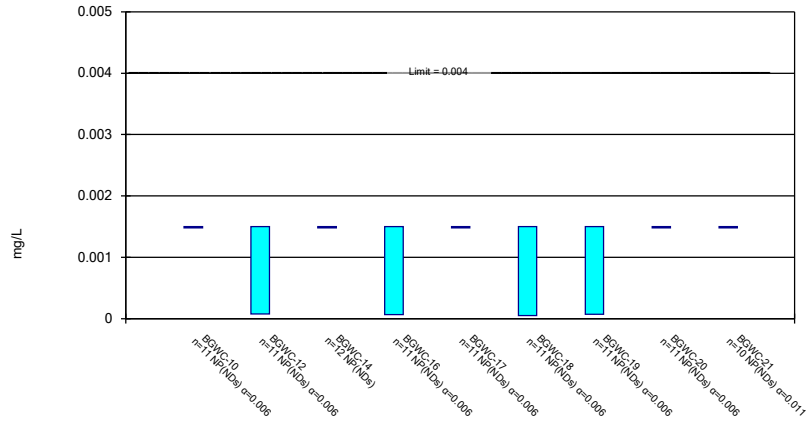
Constituent: Barium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							0.03	
2/28/2019						0.041		
3/1/2019	0.087	0.097	0.12	0.021	0.078			
4/1/2019							0.025	0.027
4/2/2019					0.075	0.031		
4/3/2019	0.082	0.087	0.095					
4/4/2019				0.016				
Mean	0.09028	0.08882	0.1037	0.02551	0.1526	0.03954	0.0276	0.03047
Std. Dev.	0.004724	0.007732	0.02911	0.006656	0.05669	0.003764	0.007269	0.004098
Upper Lim.	0.0938	0.09456	0.1254	0.03046	0.1948	0.04234	0.03195	0.03368
Lower Lim.	0.08677	0.08307	0.08209	0.02056	0.1105	0.03674	0.0245	0.02725

Non-Parametric Confidence Interval

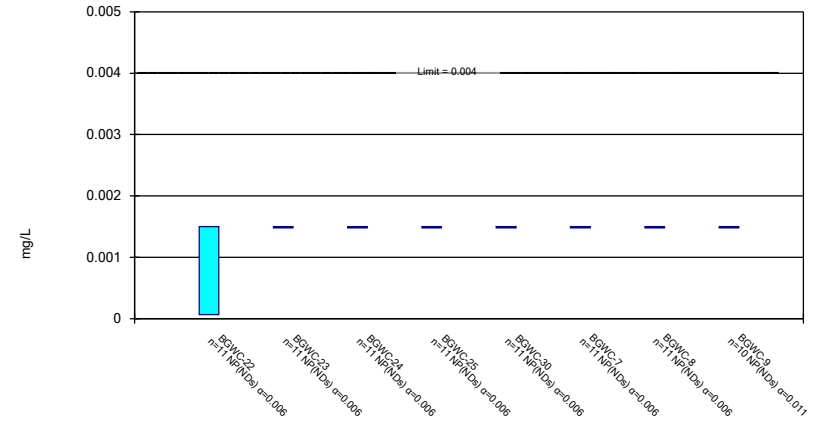
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

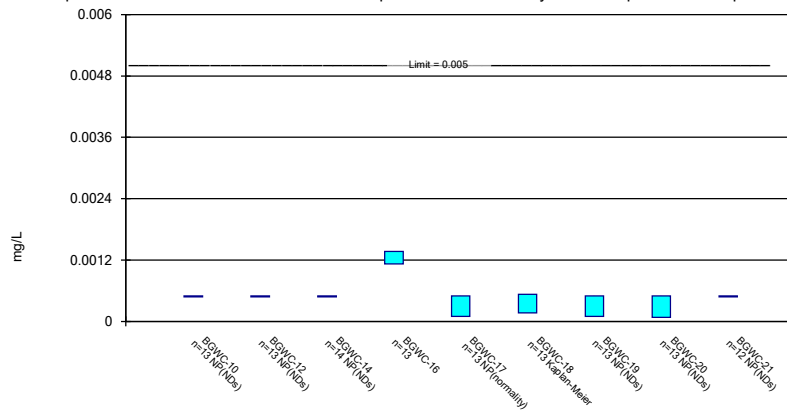
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

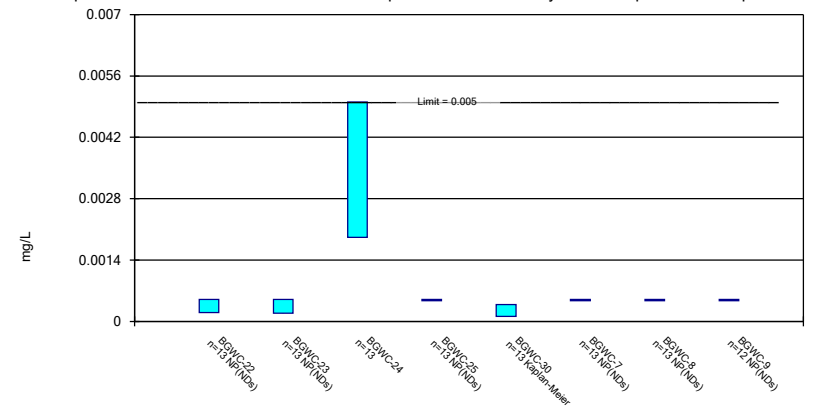
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.003	<0.003		<0.003	<0.003				
6/8/2016						<0.003	<0.003	<0.003	<0.003
6/10/2016			<0.003						
8/11/2016				<0.003	<0.003				
8/12/2016		<0.003				<0.003	<0.003	<0.003	
8/16/2016	<0.003								
8/17/2016			<0.003						
8/18/2016									<0.003
10/6/2016		<0.003							
10/7/2016	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003		
10/10/2016								<0.003	<0.003
12/5/2016		<0.003							
12/6/2016	<0.003			<0.003	<0.003	<0.003			
12/7/2016							<0.003	<0.003	
12/8/2016			<0.003						<0.003
2/15/2017		<0.003							
2/16/2017	<0.003			<0.003	<0.003	<0.003	<0.003		
2/17/2017								<0.003	<0.003
2/21/2017			<0.003						
4/18/2017	<0.003	<0.003		<0.003					
4/19/2017					<0.003	<0.003	8E-05 (J)	<0.003	<0.003
4/21/2017			<0.003						
5/30/2017				<0.003	<0.003				
6/1/2017						9E-05 (J)	7E-05 (J)	<0.003	<0.003
6/2/2017	<0.003	<0.003							
6/6/2017			<0.003						
6/15/2017			<0.003						
7/12/2017	<0.003								
7/13/2017		<0.003							
7/14/2017				<0.003	<0.003	<0.003	<0.003		
7/18/2017								<0.003	<0.003
7/19/2017			<0.003						
3/27/2018	<0.003			<0.003	<0.003	<0.003	<0.003		
3/28/2018		<0.003						<0.003	<0.003
3/29/2018			<0.003						
2/25/2019				8.7E-05 (J)					
2/27/2019					<0.003	0.00011 (J)		<0.003	
2/28/2019	<0.003	7.6E-05 (J)							
3/1/2019							<0.003		
3/6/2019			<0.003						
4/1/2019		<0.003							
4/2/2019	<0.003			6.3E-05 (J)	<0.003	5.2E-05 (J)			
4/3/2019							<0.003	<0.003	<0.003
4/4/2019			<0.003						
Mean	0.0015	0.001371	0.0015	0.001241	0.0015	0.001114	0.001241	0.0015	0.0015
Std. Dev.	0	0.0004294	0	0.0005765	0	0.0006615	0.0005764	0	0
Upper Lim.	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Lower Lim.	0.0015	7.6E-05	0.0015	6.3E-05	0.0015	5.2E-05	7E-05	0.0015	0.0015

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.001	<0.001		0.0011 (J)	<0.001				
6/8/2016						0.00063 (J)	<0.001	<0.001	<0.001
6/10/2016			<0.001						
8/11/2016				0.0011	0.0001 (J)				
8/12/2016		<0.001				0.0004 (J)	<0.001	<0.001	
8/16/2016	<0.001								
8/17/2016			<0.001						
8/18/2016									<0.001
10/6/2016		<0.001							
10/7/2016	<0.001		<0.001	0.0012	0.0002 (J)	0.0008 (J)	0.0001 (J)		
10/10/2016								<0.001	<0.001
12/5/2016		<0.001							
12/6/2016	<0.001			0.0012	0.0001 (J)	0.0006 (J)			
12/7/2016							<0.001	<0.001	
12/8/2016			<0.001						<0.001
2/15/2017		<0.001							
2/16/2017	<0.001			0.0015	0.0001 (J)	0.0002 (J)	<0.001		
2/17/2017								8E-05 (J)	<0.001
2/21/2017			<0.001						
4/18/2017	<0.001	<0.001		0.0012					
4/19/2017					0.0001 (J)	9E-05 (J)	<0.001	<0.001	<0.001
4/21/2017			<0.001						
5/30/2017				0.0011	0.0002 (J)				
6/1/2017						0.0003 (J)	0.0001 (J)	<0.001	<0.001
6/2/2017	<0.001	<0.001							
6/6/2017			<0.001						
6/15/2017			<0.001						
7/12/2017	<0.001								
7/13/2017		<0.001							
7/14/2017				0.0012	0.0002 (J)	0.0002 (J)	<0.001		
7/18/2017								<0.001	<0.001
7/19/2017			<0.001						
3/27/2018	<0.001			0.0013	<0.001	<0.001	<0.001		
3/28/2018		<0.001						<0.001	<0.001
3/29/2018			<0.001						
6/12/2018				0.0011					
6/13/2018								<0.001	
6/14/2018	<0.001	<0.001			0.00015 (J)	<0.001			<0.001
6/15/2018			<0.001				<0.001		
10/17/2018		<0.001			<0.001				
10/18/2018	<0.001			0.0012		0.00032 (J)			
10/19/2018			<0.001				<0.001		<0.001
10/22/2018								<0.001	
2/25/2019				0.0016					
2/27/2019					<0.001	<0.001		<0.001	
2/28/2019	<0.001	<0.001							
3/1/2019							<0.001		
3/6/2019			<0.001						
4/1/2019		<0.001							
4/2/2019	<0.001			0.0014	<0.001	7.3E-05 (J)			
4/3/2019							<0.001	<0.001	<0.001
4/4/2019			<0.001						

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.0005	0.0005	0.0005	0.001246	0.0002808	0.0003933	0.0004385	0.0004677	0.0005
Std. Dev.	0	0	0	0.0001613	0.0001843	0.0002202	0.0001502	0.0001165	0
Upper Lim.	0.0005	0.0005	0.0005	0.001366	0.0005	0.0005298	0.0005	0.0005	0.0005
Lower Lim.	0.0005	0.0005	0.0005	0.001126	0.0001	0.0001691	0.0001	8E-05	0.0005

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.001
6/7/2016							<0.001	
6/8/2016	<0.001			<0.001		<0.001		
6/9/2016		<0.001	0.00052 (J)					
8/10/2016							<0.001	
8/11/2016						<0.001		<0.001
8/15/2016				<0.001				
8/18/2016	<0.001	<0.001	0.0009 (J)					
10/4/2016							<0.001	
10/5/2016								<0.001
10/6/2016						<0.001		
10/10/2016	<0.001	<0.001	0.0017	<0.001				
12/2/2016							<0.001	
12/5/2016								<0.001
12/6/2016						<0.001		
12/7/2016		<0.001	0.0004 (J)					
12/8/2016	0.0002 (J)			<0.001				
1/23/2017					0.0003 (J)			
2/7/2017					0.0006 (J)			
2/14/2017							<0.001	
2/15/2017						<0.001		<0.001
2/17/2017	<0.001							
2/20/2017		<0.001	0.0028	<0.001				
3/27/2017					0.0003 (J)			
4/14/2017							<0.001	
4/17/2017					0.0002 (J)			<0.001
4/18/2017						<0.001		
4/19/2017		<0.001	0.0035					
4/20/2017	<0.001			<0.001				
5/22/2017					0.0003 (J)			
5/26/2017							<0.001	<0.001
6/1/2017				<0.001				
6/2/2017						<0.001		
6/5/2017	<0.001	<0.001	0.0035		0.0003 (J)			
7/10/2017							<0.001	
7/11/2017					0.0005 (J)			<0.001
7/14/2017						<0.001		
7/17/2017		<0.001	0.0037	<0.001				
7/19/2017	<0.001							
8/23/2017					0.0004 (J)			
3/26/2018					<0.001		<0.001	
3/27/2018						<0.001		<0.001
3/28/2018				<0.001				
3/29/2018	<0.001	<0.001	0.0063					
6/12/2018							<0.001	<0.001
6/13/2018		<0.001	0.0053			<0.001		
6/14/2018	<0.001			<0.001				
6/15/2018					0.0002 (J)			
10/16/2018							<0.001	
10/17/2018								<0.001
10/18/2018						<0.001		
10/22/2018	<0.001	<0.001	0.0053	<0.001	<0.001			

Confidence Interval

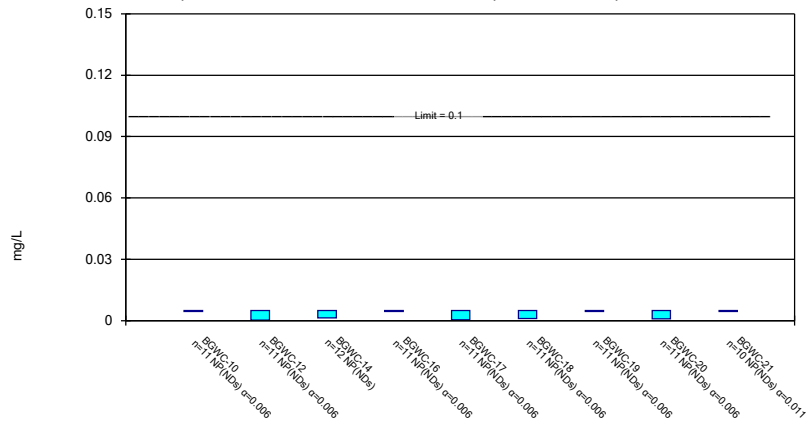
Constituent: Cadmium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.001	
2/28/2019						<0.001		
3/1/2019	0.00013 (J)	0.00019 (J)	0.0058	<0.001	<0.001			
4/1/2019							<0.001	<0.001
4/2/2019					7.9E-05 (J)	<0.001		
4/3/2019	<0.001	<0.001	0.0053					
4/4/2019				<0.001				
Mean	0.0004485	0.0004762	0.003463	0.0005	0.0003599	0.0005	0.0005	0.0005
Std. Dev.	0.0001266	8.598E-05	0.002079	0	0.0001533	0	0	0
Upper Lim.	0.0005	0.0005	0.005009	0.0005	0.0003871	0.0005	0.0005	0.0005
Lower Lim.	0.0002	0.00019	0.001917	0.0005	0.0001161	0.0005	0.0005	0.0005

Non-Parametric Confidence Interval

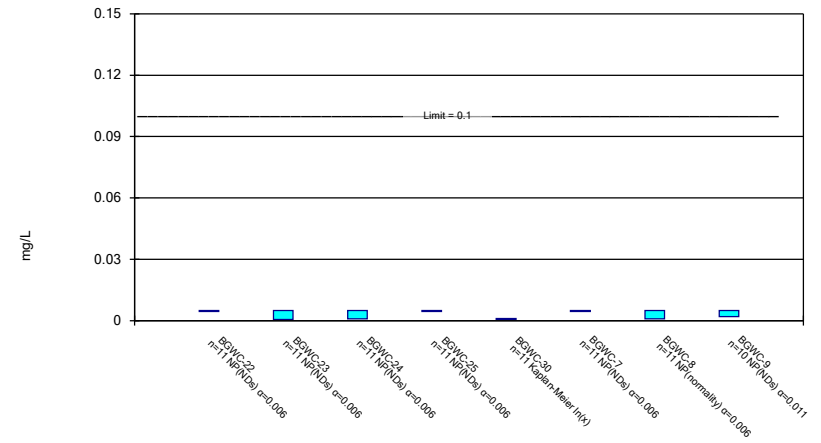
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Chromium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

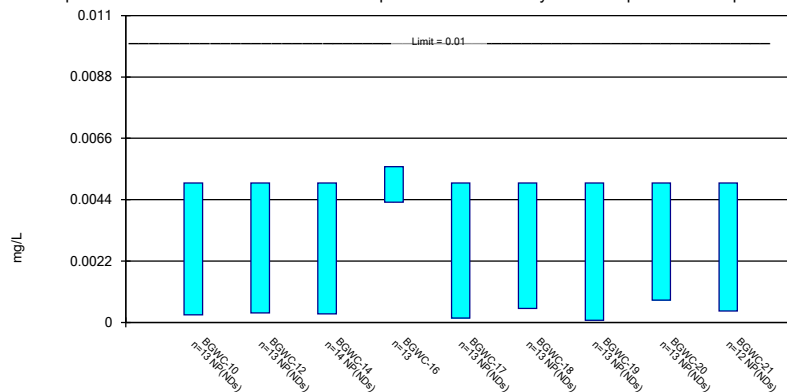
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chromium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

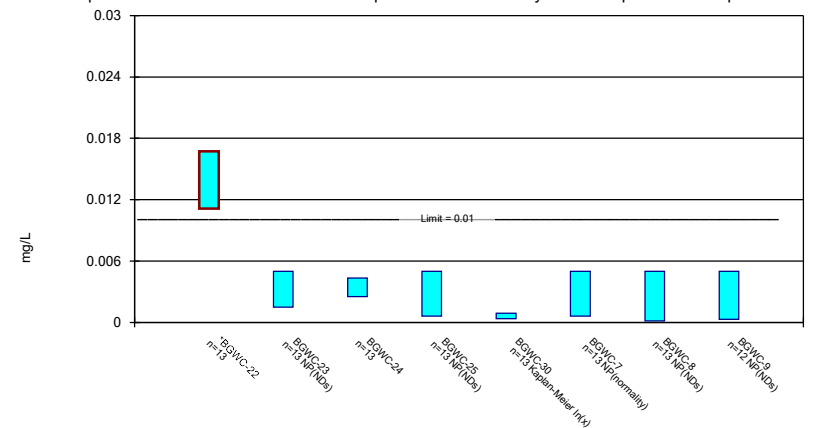
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		<0.01	<0.01				
6/8/2016						<0.01	<0.01	<0.01	<0.01
6/10/2016			<0.01						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		0.0014 (J)	<0.01	<0.01	0.0011 (J)	<0.01		
10/10/2016								<0.01	<0.01
12/5/2016		<0.01							
12/6/2016	<0.01			<0.01	<0.01	<0.01			
12/7/2016							<0.01	<0.01	
12/8/2016			<0.01						<0.01
2/15/2017		<0.01							
2/16/2017	<0.01			<0.01	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			<0.01						
4/18/2017	<0.01	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	0.0003 (J)							
6/6/2017			<0.01						
6/15/2017			<0.01						
7/12/2017	<0.01								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								<0.01	<0.01
7/19/2017			<0.01						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		0.0048 (J)	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		<0.01							
4/2/2019	<0.01			<0.01	0.00044 (J)	<0.01			
4/3/2019							<0.01	0.00088 (J)	<0.01
4/4/2019			0.00057 (J)						
Mean	0.005	0.004573	0.004331	0.005	0.004585	0.004645	0.005	0.004607	0.005
Std. Dev.	0	0.001417	0.001573	0	0.001375	0.001176	0	0.001238	0
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.005	0.0003	0.0014	0.005	0.00044	0.0011	0.005	0.00088	0.005

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.01
6/7/2016							<0.01	
6/8/2016	<0.01			<0.01		<0.01		
6/9/2016		<0.01	<0.01					
8/10/2016							0.0052 (J)	
8/11/2016						<0.01		<0.01
8/15/2016				<0.01				
8/18/2016	<0.01	<0.01	<0.01					
10/4/2016							0.0015 (J)	
10/5/2016								0.002 (J)
10/6/2016						<0.01		
10/10/2016	<0.01	<0.01	0.0009 (J)	<0.01				
12/2/2016							0.0013 (J)	
12/5/2016								<0.01
12/6/2016						<0.01		
12/7/2016		0.002 (J)	<0.01					
12/8/2016	<0.01			<0.01				
1/23/2017					0.001 (J)			
2/7/2017					<0.01			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	<0.01							
2/20/2017		<0.01	<0.01	<0.01				
3/27/2017					<0.01			
4/14/2017							0.0011 (J)	
4/17/2017					<0.01			<0.01
4/18/2017						<0.01		
4/19/2017		<0.01	<0.01					
4/20/2017	<0.01			<0.01				
5/22/2017					0.0004 (J)			
5/26/2017							0.0008 (J)	<0.01
6/1/2017				<0.01				
6/2/2017						<0.01		
6/5/2017	<0.01	<0.01	<0.01		0.0004 (J)			
7/10/2017							0.0009 (J)	
7/11/2017					0.0012 (J)			<0.01
7/14/2017						<0.01		
7/17/2017		<0.01	<0.01	<0.01				
7/19/2017	<0.01							
8/23/2017					0.0009 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	<0.01	<0.01	<0.01					
2/25/2019							<0.01	
2/28/2019						<0.01		
3/1/2019	<0.01	0.0033 (J)	<0.01	<0.01	<0.01			
4/1/2019							0.00091 (J)	<0.01
4/2/2019					0.00095 (J)	<0.01		
4/3/2019	<0.01	0.00057 (J)	<0.01					
4/4/2019				<0.01				
Mean	0.005	0.00417	0.004627	0.005	0.002714	0.005	0.002883	0.0047

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
Std. Dev.	0	0.001547	0.001236	0	0.002202	0	0.002075	0.0009487
Upper Lim.	0.005	0.005	0.005	0.005	0.001071	0.005	0.005	0.005
Lower Lim.	0.005	0.00057	0.0009	0.005	0.0005112	0.005	0.0008	0.002

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		0.0037	<0.01				
6/8/2016						0.00071 (J)	<0.01	<0.01	0.00041 (J)
6/10/2016			<0.01						
8/11/2016				0.0039 (J)	<0.01				
8/12/2016		<0.01				0.0006 (J)	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		<0.01	0.0043 (J)	<0.01	0.0005 (J)	<0.01		
10/10/2016								<0.01	<0.01
12/5/2016		0.0006 (J)							
12/6/2016	<0.01			0.005 (J)	<0.01	0.0009 (J)			
12/7/2016							<0.01	0.0008 (J)	
12/8/2016			<0.01						0.0006 (J)
2/15/2017		<0.01							
2/16/2017	<0.01			0.0054 (J)	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			<0.01						
4/18/2017	<0.01	<0.01		0.0054 (J)					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				0.0045 (J)	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	<0.01							
6/6/2017			<0.01						
6/15/2017			0.0003 (J)						
7/12/2017	<0.01								
7/13/2017		0.0003 (J)							
7/14/2017				0.0049 (J)	<0.01	<0.01	<0.01		
7/18/2017								<0.01	0.0004 (J)
7/19/2017			0.0003 (J)						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
6/12/2018				0.0048 (J)					
6/13/2018								<0.01	
6/14/2018	<0.01	<0.01			<0.01	<0.01			<0.01
6/15/2018			<0.01				<0.01		
10/17/2018		<0.01			<0.01				
10/18/2018	<0.01			0.0047 (J)		<0.01			
10/19/2018			<0.01				<0.01		<0.01
10/22/2018								<0.01	
2/25/2019				0.0071 (J)					
2/27/2019					<0.01	<0.01		<0.01	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		0.00034 (J)							
4/2/2019	0.00027 (J)			0.0056 (J)	0.00015 (J)	0.00012 (J)			
4/3/2019							7.2E-05 (J)	0.00024 (J)	0.00064 (J)
4/4/2019			0.00015 (J)						

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.004636	0.003942	0.003982	0.004946	0.004627	0.003295	0.004621	0.004311	0.003504
Std. Dev.	0.001312	0.002012	0.002023	0.0008579	0.001345	0.002251	0.001367	0.001686	0.00221
Upper Lim.	0.005	0.005	0.005	0.005584	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00027	0.00034	0.0003	0.004308	0.00015	0.0005	7.2E-05	0.0008	0.00041

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.01
6/7/2016							0.00013 (J)	
6/8/2016	0.0079			<0.01		0.00081 (J)		
6/9/2016		<0.01	0.0026					
8/10/2016							0.0003 (J)	
8/11/2016						0.0007 (J)		0.0003 (J)
8/15/2016				<0.01				
8/18/2016	0.0109	<0.01	0.0021 (J)					
10/4/2016							<0.01	
10/5/2016								<0.01
10/6/2016						<0.01		
10/10/2016	0.011	<0.01	0.0018 (J)	<0.01				
12/2/2016							<0.01	
12/5/2016								0.0006 (J)
12/6/2016						0.0009 (J)		
12/7/2016		0.0015 (J)	0.0018 (J)					
12/8/2016	0.013			0.0006 (J)				
1/23/2017					0.0012 (J)			
2/7/2017					0.0008 (J)			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	0.0122							
2/20/2017		<0.01	0.0027 (J)	<0.01				
3/27/2017					0.001 (J)			
4/14/2017							<0.01	
4/17/2017					0.0009 (J)			<0.01
4/18/2017						0.0005 (J)		
4/19/2017		<0.01	0.0032 (J)					
4/20/2017	0.0116			<0.01				
5/22/2017					0.0008 (J)			
5/26/2017							<0.01	<0.01
6/1/2017				<0.01				
6/2/2017						0.0006 (J)		
6/5/2017	0.0112	<0.01	0.0034 (J)		0.0008 (J)			
7/10/2017							<0.01	
7/11/2017					0.0008 (J)			<0.01
7/14/2017						0.0006 (J)		
7/17/2017		<0.01	0.0033 (J)	<0.01				
7/19/2017	0.0131							
8/23/2017					0.0006 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	0.016	<0.01	<0.01					
6/12/2018							<0.01	<0.01
6/13/2018		<0.01	0.0039 (J)			0.00068 (J)		
6/14/2018	0.017			<0.01				
6/15/2018					<0.01			
10/16/2018							<0.01	
10/17/2018								<0.01
10/18/2018						<0.01		
10/22/2018	0.021	<0.01	0.0043 (J)	<0.01	<0.01			

Confidence Interval

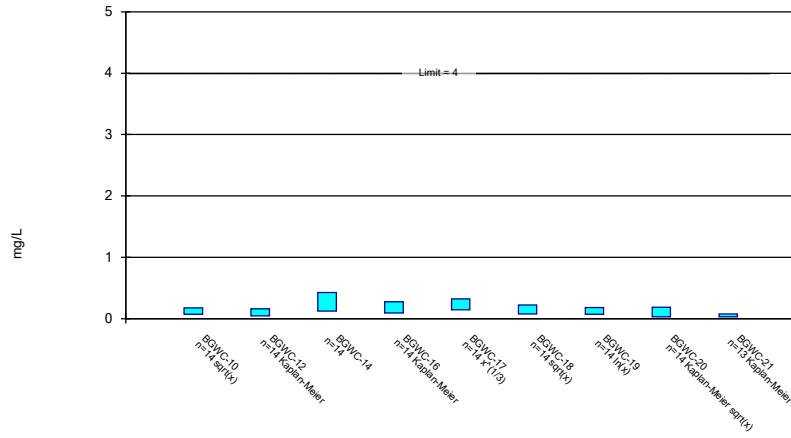
Constituent: Cobalt (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.01	
2/28/2019						0.00067 (J)		
3/1/2019	0.017	<0.01	0.0055 (J)	<0.01	<0.01			
4/1/2019							5.6E-05 (J)	0.00024 (J)
4/2/2019					0.00022 (J)	0.00094 (J)		
4/3/2019	0.019	0.00058 (J)	0.0048 (J)					
4/4/2019				0.00022 (J)				
Mean	0.01392	0.004391	0.003415	0.004294	0.002086	0.002031	0.003884	0.003845
Std. Dev.	0.003768	0.001499	0.001224	0.001725	0.002034	0.002064	0.002122	0.002091
Upper Lim.	0.01672	0.005	0.004325	0.005	0.0008892	0.005	0.005	0.005
Lower Lim.	0.01111	0.0015	0.002505	0.0006	0.0003534	0.0006	0.00013	0.0003

Parametric Confidence Interval

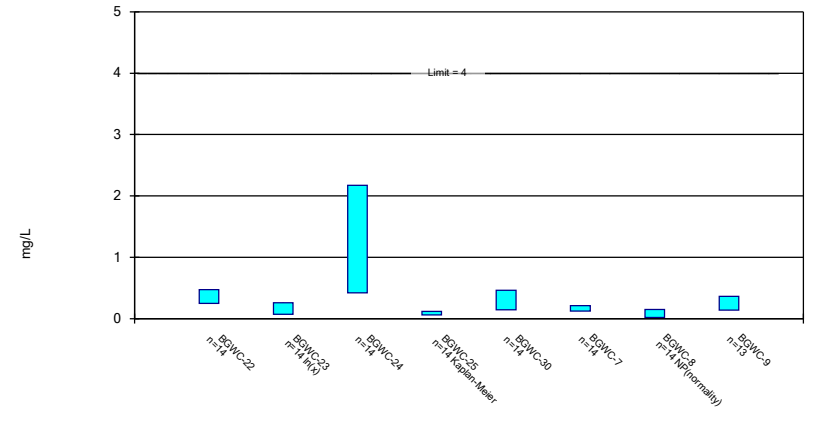
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Fluoride Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

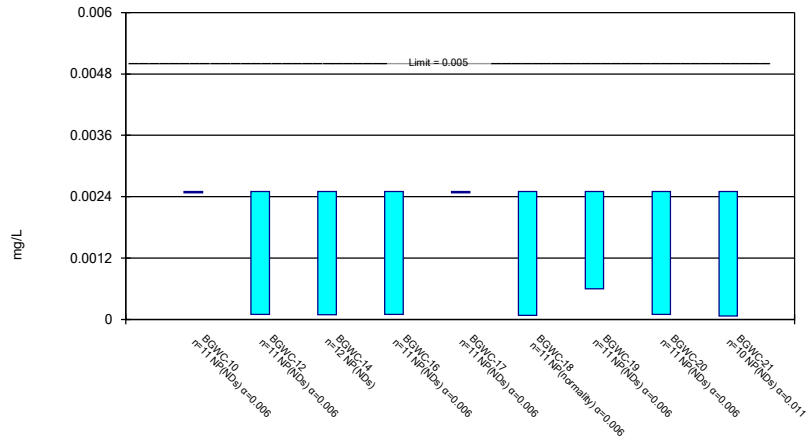
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Fluoride Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

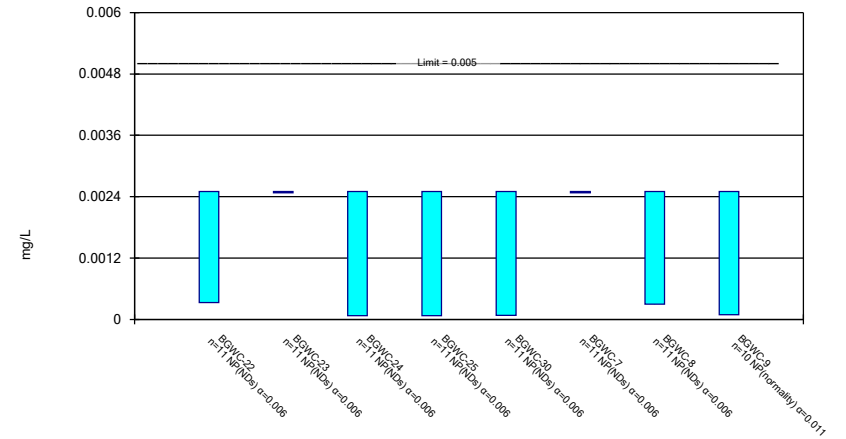
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.09 (J)	<0.3		<0.3	0.15 (J)				
6/8/2016						0.1 (J)	<0.3	0.09 (J)	<0.3
6/10/2016			0.23						
8/11/2016				0.12 (J)	0.3 (J)				
8/12/2016		0.08 (J)				0.39	0.2 (J)	0.04 (J)	
8/16/2016	0.09 (J)								
8/17/2016			0.12 (J)						
8/18/2016									0.09 (J)
10/6/2016		0.06 (J)							
10/7/2016	0.17 (J)		0.13 (J)	0.08 (J)	0.14 (J)	0.16 (J)	0.07 (J)		
10/10/2016								0.06 (J)	0.04 (J)
12/5/2016		0.12 (J)							
12/6/2016	0.16 (J)			0.24 (J)	0.19 (J)	0.32			
12/7/2016							0.09 (J)	0.07 (J)	
12/8/2016			0.31						0.08 (J)
2/15/2017		0.33							
2/16/2017	0.38			0.31	0.51	0.38	0.6		
2/17/2017								0.06 (J)	0.08 (J)
2/21/2017			0.35						
4/18/2017	0.12 (J)	0.006 (J)		0.02 (J)					
4/19/2017					0.18 (J)	0.08 (J)	0.09 (J)	0.005 (J)	0.04 (J)
4/21/2017			0.04 (J)						
5/30/2017				0.51	0.15 (J)				
6/1/2017						0.09 (J)	0.05 (J)	0.65	0.03 (J)
6/2/2017	0.03 (J)	0.04 (J)							
6/6/2017			0.36						
7/12/2017	0.15 (J)								
7/13/2017		0.17 (J)							
7/14/2017				0.14 (J)	0.16 (J)	0.06 (J)	0.08 (J)		
7/18/2017								0.36	0.08 (J)
7/19/2017			0.18 (J)						
10/10/2017		0.08 (J)							
10/11/2017	0.07 (J)			0.29 (J)	0.64	0.14 (J)	0.11 (J)	<0.3	
10/12/2017			0.08 (J)						0.12 (J)
3/27/2018	<0.3			<0.3	0.33	<0.3	<0.3		
3/28/2018		<0.3						<0.3	<0.3
3/29/2018			<0.3						
6/12/2018				0.061 (J)					
6/13/2018								0.038 (J)	
6/14/2018	0.046 (J)	<0.3			0.11 (J)	0.095 (J)			<0.3
6/15/2018			0.41				0.07 (J)		
10/17/2018		<0.3			<0.3				
10/18/2018	<0.3			<0.3		0.054 (J)			
10/19/2018			<0.3				0.17 (J)		<0.3
10/22/2018								<0.3	
2/25/2019				0.13 (J)					
2/27/2019					0.26 (J)	<0.3		0.13 (J)	
2/28/2019	0.14 (J)	0.18 (J)							
3/1/2019							0.14 (J)		
3/6/2019			0.88						
4/1/2019		0.065 (J)							
4/2/2019	0.044 (J)			0.23 (J)	0.14 (J)	0.044 (J)			

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
4/3/2019							0.051 (J)	0.072 (J)	0.032 (J)
4/4/2019			0.44						
Mean	0.1279	0.1236	0.2736	0.1844	0.2436	0.1581	0.1444	0.1446	0.09169
Std. Dev.	0.08664	0.07982	0.2159	0.1252	0.1565	0.1181	0.1391	0.1692	0.04789
Upper Lim.	0.1765	0.1616	0.4265	0.2735	0.321	0.2229	0.1793	0.184	0.07791
Lower Lim.	0.0685	0.04315	0.1206	0.09333	0.143	0.07721	0.07155	0.02696	0.03087

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.12 (J)
6/7/2016							<0.3	
6/8/2016	0.43			0.14 (J)		0.19 (J)		
6/9/2016		0.12 (J)	<0.3					
8/10/2016							0.07 (J)	
8/11/2016						0.15 (J)		0.27 (J)
8/15/2016				0.08 (J)				
8/18/2016	0.3 (J)	0.08 (J)	0.24 (J)					
10/4/2016							0.07 (J)	
10/5/2016								0.12 (J)
10/6/2016						0.17 (J)		
10/10/2016	0.32	0.09 (J)	0.3	0.1 (J)				
12/2/2016							0.09 (J)	
12/5/2016								0.26 (J)
12/6/2016						0.22 (J)		
12/7/2016		0.08 (J)	0.05 (J)					
12/8/2016	0.26 (J)			0.06 (J)				
1/23/2017					0.06 (J)			
2/7/2017					0.09 (J)			
2/14/2017							0.02 (J)	
2/15/2017						0.18 (J)		0.46
2/17/2017	0.39							
2/20/2017		0.09 (J)	0.65	0.16 (J)				
3/27/2017					0.09 (J)			
4/14/2017							0.02 (J)	
4/17/2017					0.36			0.14 (J)
4/18/2017						0.11 (J)		
4/19/2017		0.03 (J)	0.21 (J)					
4/20/2017	0.34			0.02 (J)				
5/22/2017					0.05 (J)			
5/26/2017							0.02 (J)	0.13 (J)
6/1/2017				0.04 (J)				
6/2/2017						0.07 (J)		
6/5/2017	0.29 (J)	<0.3	0.05 (J)		0.32			
7/10/2017							0.03 (J)	
7/11/2017					0.13 (J)			0.2 (J)
7/14/2017						0.23 (J)		
7/17/2017		0.09 (J)	2.5	0.07 (J)				
7/19/2017	0.33							
8/23/2017					0.17 (J)			
10/10/2017					0.35		<0.3	0.61
10/11/2017		0.09 (J)	1.8	0.11 (J)		0.1 (J)		
10/12/2017	0.31							
3/26/2018					0.75		<0.3	
3/27/2018						<0.3		0.36
3/28/2018				<0.3				
3/29/2018	0.58	<0.3	2					
6/12/2018							0.061 (J)	0.13 (J)
6/13/2018		0.71	3.1			0.25 (J)		
6/14/2018	0.15 (J)			<0.3				
6/15/2018					0.51			
10/16/2018							<0.3	

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
10/17/2018								0.13 (J)
10/18/2018						0.047 (J)		
10/22/2018	0.78	0.81	3.1	<0.3	0.44			
2/25/2019							<0.3	
2/28/2019						0.23 (J)		
3/1/2019	0.34	0.38	1	0.12 (J)	0.24 (J)			
4/1/2019							<0.3	0.33
4/2/2019					0.68	0.22 (J)		
4/3/2019	0.23 (J)	0.1 (J)	3					
4/4/2019				<0.3				
Mean	0.3607	0.2121	1.296	0.1071	0.3029	0.1655	0.0915	0.2508
Std. Dev.	0.1559	0.2465	1.235	0.04631	0.2278	0.064	0.05651	0.1539
Upper Lim.	0.4711	0.2581	2.171	0.1197	0.4642	0.2108	0.15	0.3652
Lower Lim.	0.2503	0.07169	0.4218	0.06028	0.1415	0.1202	0.02	0.1363

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.005	<0.005		<0.005	<0.005				
6/8/2016						<0.005	<0.005	<0.005	<0.005
6/10/2016			<0.005						
8/11/2016				<0.005	<0.005				
8/12/2016		0.0001 (J)				0.0001 (J)	<0.005	<0.005	
8/16/2016	<0.005								
8/17/2016			<0.005						
8/18/2016									<0.005
10/6/2016		0.0002 (J)							
10/7/2016	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		0.0003 (J)							
12/6/2016	<0.005			<0.005	<0.005	0.0001 (J)			
12/7/2016							<0.005	<0.005	
12/8/2016			<0.005						<0.005
2/15/2017		<0.005							
2/16/2017	<0.005			<0.005	<0.005	0.0002 (J)	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	<0.005	<0.005		<0.005					
4/19/2017					<0.005	0.0001 (J)	0.0006 (J)	<0.005	<0.005
4/21/2017			<0.005						
5/30/2017				0.0001 (J)	<0.005				
6/1/2017						9E-05 (J)	<0.005	0.0001 (J)	<0.005
6/2/2017	<0.005	0.0001 (J)							
6/6/2017			<0.005						
6/15/2017			9E-05 (J)						
7/12/2017	<0.005								
7/13/2017		0.0001 (J)							
7/14/2017				0.0002 (J)	<0.005	0.0001 (J)	<0.005		
7/18/2017								<0.005	<0.005
7/19/2017			<0.005						
3/27/2018	<0.005			<0.005	<0.005	<0.005	<0.005		
3/28/2018		<0.005						<0.005	<0.005
3/29/2018			<0.005						
2/25/2019				<0.005					
2/27/2019					<0.005	<0.005		<0.005	
2/28/2019	<0.005	<0.005							
3/1/2019							<0.005		
3/6/2019			<0.005						
4/1/2019		<0.005							
4/2/2019	<0.005			<0.005	<0.005	8.1E-05 (J)			
4/3/2019							<0.005	<0.005	6.8E-05 (J)
4/4/2019			<0.005						
Mean	0.0025	0.001436	0.002299	0.002073	0.0025	0.0009792	0.002327	0.002282	0.002257
Std. Dev.	0	0.001223	0.0006957	0.0009509	0	0.001206	0.0005729	0.0007236	0.0007691
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0001	9E-05	0.0001	0.0025	8.1E-05	0.0006	0.0001	6.8E-05

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.005
6/7/2016							<0.005	
6/8/2016	<0.005			<0.005		<0.005		
6/9/2016		<0.005	0.00059 (J)					
8/10/2016							<0.005	
8/11/2016						<0.005		<0.005
8/15/2016				0.0005 (J)				
8/18/2016	<0.005	<0.005	<0.005					
10/4/2016							<0.005	
10/5/2016								0.0005 (J)
10/6/2016						<0.005		
10/10/2016	<0.005	<0.005	<0.005	<0.005				
12/2/2016							<0.005	
12/5/2016								0.0002 (J)
12/6/2016						<0.005		
12/7/2016		<0.005	<0.005					
12/8/2016	<0.005			0.0006 (J)				
1/23/2017					0.0003 (J)			
2/7/2017					0.0002 (J)			
2/14/2017							<0.005	
2/15/2017						<0.005		<0.005
2/17/2017	<0.005							
2/20/2017		<0.005	<0.005	0.0004 (J)				
3/27/2017					8E-05 (J)			
4/14/2017							<0.005	
4/17/2017					<0.005			0.0001 (J)
4/18/2017						<0.005		
4/19/2017		<0.005	<0.005					
4/20/2017	<0.005			0.0002 (J)				
5/22/2017					<0.005			
5/26/2017							0.0003 (J)	0.0001 (J)
6/1/2017				7E-05 (J)				
6/2/2017						<0.005		
6/5/2017	<0.005	<0.005	7E-05 (J)		<0.005			
7/10/2017							<0.005	
7/11/2017					8E-05 (J)			<0.005
7/14/2017						<0.005		
7/17/2017		<0.005	<0.005	<0.005				
7/19/2017	<0.005							
8/23/2017					<0.005			
3/26/2018					<0.005		<0.005	
3/27/2018						<0.005		<0.005
3/28/2018				<0.005				
3/29/2018	<0.005	<0.005	<0.005					
2/25/2019							<0.005	
2/28/2019						<0.005		
3/1/2019	0.00033 (J)	<0.005	<0.005	<0.005	<0.005			
4/1/2019							<0.005	9.2E-05 (J)
4/2/2019					<0.005	<0.005		
4/3/2019	<0.005	<0.005	<0.005					
4/4/2019				<0.005				
Mean	0.002303	0.0025	0.002105	0.001525	0.001651	0.0025	0.0023	0.001349

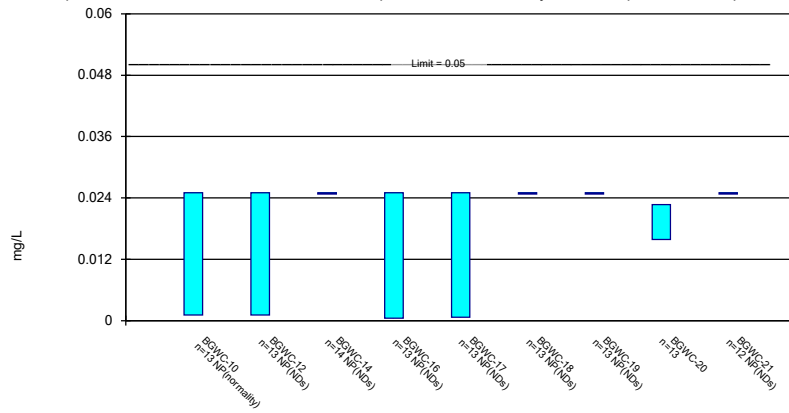
Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2019 11:37 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
Std. Dev.	0.0006543	0	0.0008855	0.001129	0.00118	0	0.0006633	0.001219
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.00033	0.0025	7E-05	7E-05	8E-05	0.0025	0.0003	9.2E-05

Parametric and Non-Parametric (NP) Confidence Interval

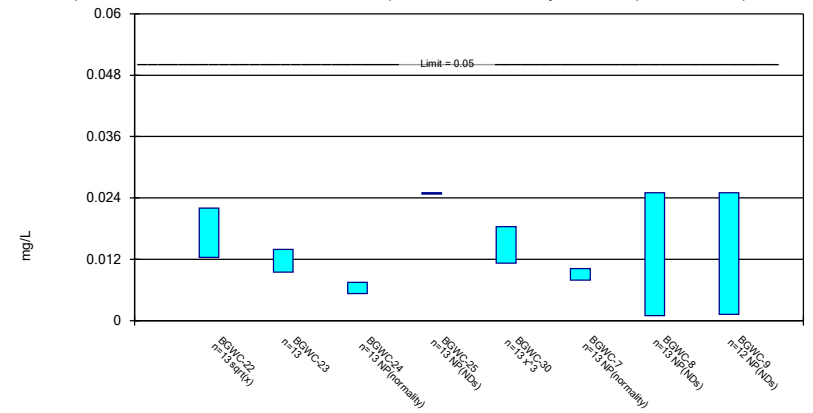
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lithium Analysis Run 11/6/2019 11:30 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

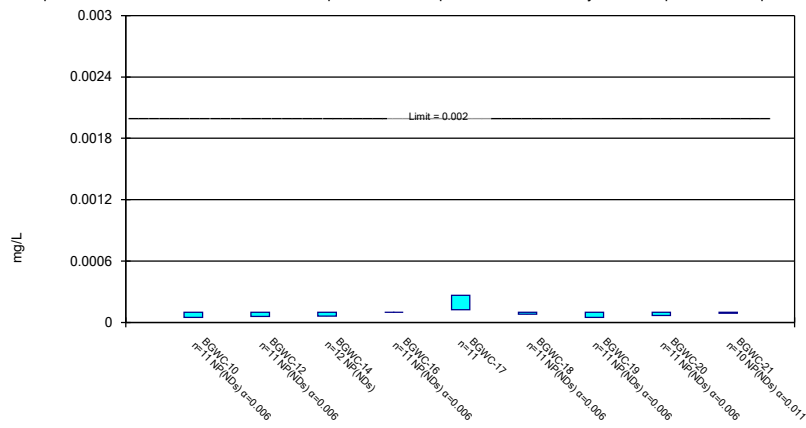
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lithium Analysis Run 11/6/2019 11:30 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

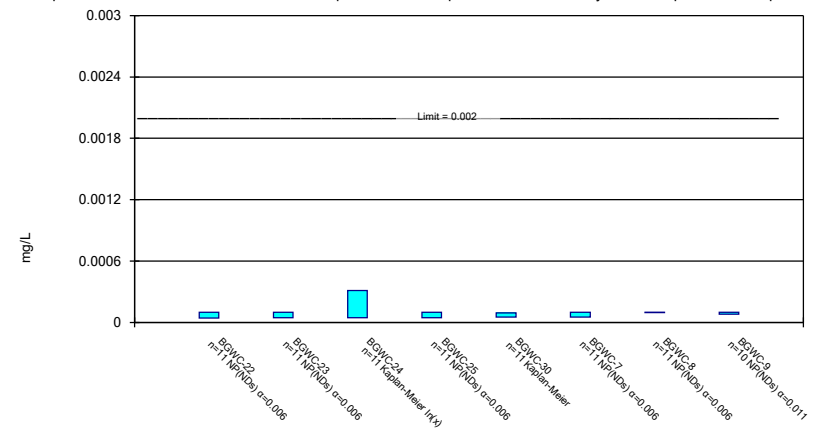
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Mercury Analysis Run 11/6/2019 11:30 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Mercury Analysis Run 11/6/2019 11:30 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0065	<0.05		<0.05	<0.05				
6/8/2016						<0.05	<0.05	0.016	<0.05
6/10/2016			<0.05						
8/11/2016				<0.05	<0.05				
8/12/2016		<0.05				<0.05	<0.05	0.0202 (J)	
8/16/2016	<0.05								
8/17/2016			<0.05						
8/18/2016									<0.05
10/6/2016		<0.05							
10/7/2016	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05		
10/10/2016								0.0194 (J)	<0.05
12/5/2016		<0.05							
12/6/2016	<0.05			<0.05	<0.05	<0.05			
12/7/2016							<0.05	0.0265 (J)	
12/8/2016			<0.05						<0.05
2/15/2017		<0.05							
2/16/2017	<0.05			<0.05	<0.05	<0.05	<0.05		
2/17/2017								0.0253 (J)	<0.05
2/21/2017			<0.05						
4/18/2017	0.0011 (J)	<0.05		<0.05					
4/19/2017					<0.05	<0.05	<0.05	0.0233 (J)	<0.05
4/21/2017			<0.05						
5/30/2017				<0.05	<0.05				
6/1/2017						<0.05	<0.05	0.023 (J)	<0.05
6/2/2017	0.0011 (J)	<0.05							
6/6/2017			<0.05						
6/15/2017			<0.05						
7/12/2017	<0.05								
7/13/2017		<0.05							
7/14/2017				<0.05	<0.05	<0.05	<0.05		
7/18/2017								0.0207 (J)	<0.05
7/19/2017			<0.05						
3/27/2018	0.0025 (J)			<0.05	<0.05	<0.05	<0.05		
3/28/2018		<0.05						0.013 (J)	<0.05
3/29/2018			<0.05						
6/12/2018				<0.05					
6/13/2018								0.02 (J)	
6/14/2018	0.0011 (J)	<0.05			<0.05	<0.05			<0.05
6/15/2018			<0.05				<0.05		
10/17/2018		<0.05			<0.05				
10/18/2018	0.0016 (J)			<0.05		<0.05			
10/19/2018			<0.05				<0.05		<0.05
10/22/2018								0.016 (J)	
2/25/2019				<0.05					
2/27/2019					<0.05	<0.05		0.015 (J)	
2/28/2019	0.0017 (J)	0.0011 (J)							
3/1/2019							<0.05		
3/6/2019			<0.05						
4/1/2019		0.00078 (J)							
4/2/2019	0.0012 (J)			0.00049 (J)	0.00069 (J)	<0.05			
4/3/2019							<0.05	0.012 (J)	<0.05
4/4/2019			<0.05						

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.01091	0.0213	0.025	0.02311	0.02313	0.025	0.025	0.01926	0.025
Std. Dev.	0.01168	0.009036	0	0.006798	0.006742	0	0	0.004601	0
Upper Lim.	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.02268	0.025
Lower Lim.	0.0011	0.0011	0.025	0.00049	0.00069	0.025	0.025	0.01584	0.025

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.05
6/7/2016							<0.05	
6/8/2016	0.012			<0.05		0.0079		
6/9/2016		0.0074	0.0057					
8/10/2016							<0.05	
8/11/2016						0.0093 (J)		<0.05
8/15/2016				<0.05				
8/18/2016	0.0118 (J)	0.0078 (J)	0.0061 (J)					
10/4/2016							<0.05	
10/5/2016								<0.05
10/6/2016						0.0102 (J)		
10/10/2016	0.0137 (J)	0.0093 (J)	0.006 (J)	<0.05				
12/2/2016							<0.05	
12/5/2016								<0.05
12/6/2016						0.0094 (J)		
12/7/2016		0.0117 (J)	0.0066 (J)					
12/8/2016	0.0154 (J)			<0.05				
1/23/2017					0.0171 (J)			
2/7/2017					0.0196 (J)			
2/14/2017							<0.05	
2/15/2017						<0.05		<0.05
2/17/2017	0.0125 (J)							
2/20/2017		0.011 (J)	0.0053 (J)	<0.05				
3/27/2017					0.0192 (J)			
4/14/2017							<0.05	
4/17/2017					0.0169 (J)			0.0013 (J)
4/18/2017						0.0086 (J)		
4/19/2017		0.0105 (J)	0.0055 (J)					
4/20/2017	0.012 (J)			<0.05				
5/22/2017					0.0167 (J)			
5/26/2017							<0.05	0.0013 (J)
6/1/2017				<0.05				
6/2/2017						0.0102 (J)		
6/5/2017	0.0114 (J)	0.0108 (J)	0.0068 (J)		0.0177 (J)			
7/10/2017							<0.05	
7/11/2017					0.0203 (J)			<0.05
7/14/2017						0.0092 (J)		
7/17/2017		0.0095 (J)	<0.05	<0.05				
7/19/2017	0.0126 (J)							
8/23/2017					0.0182 (J)			
3/26/2018					0.0063 (J)		<0.05	
3/27/2018						0.0087 (J)		0.0014 (J)
3/28/2018				<0.05				
3/29/2018	0.021 (J)	0.014 (J)	0.0053 (J)					
6/12/2018							<0.05	0.0012 (J)
6/13/2018		0.014 (J)	0.0067 (J)			0.0084 (J)		
6/14/2018	0.024 (J)			<0.05				
6/15/2018					0.0049 (J)			
10/16/2018							0.001 (J)	
10/17/2018								<0.05
10/18/2018						0.0083 (J)		
10/22/2018	0.034 (J)	0.016 (J)	0.0075 (J)	<0.05	0.005 (J)			

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.05	
2/28/2019						0.0086 (J)		
3/1/2019	0.022 (J)	0.017 (J)	0.0068 (J)	<0.05	0.0044 (J)			
4/1/2019							<0.05	0.0012 (J)
4/2/2019					0.0041 (J)	0.0073 (J)		
4/3/2019	0.024 (J)	0.013 (J)	0.0048 (J)					
4/4/2019				<0.05				
Mean	0.01742	0.01169	0.007546	0.025	0.01311	0.01008	0.02315	0.01512
Std. Dev.	0.006995	0.002971	0.0053	0	0.006817	0.004557	0.006656	0.01221
Upper Lim.	0.02199	0.0139	0.0075	0.025	0.01838	0.0102	0.025	0.025
Lower Lim.	0.01238	0.009483	0.0053	0.025	0.01127	0.0079	0.001	0.0012

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0001 (J)	0.0001 (J)		9.8E-05 (J)	0.00017 (J)				
6/8/2016						<0.0002	<0.0002	<0.0002	<0.0002
6/10/2016			<0.0002						
8/11/2016				<0.0002	0.00019 (J)				
8/12/2016		<0.0002				<0.0002	<0.0002	<0.0002	
8/16/2016	<0.0002								
8/17/2016			<0.0002						
8/18/2016									<0.0002
10/6/2016		<0.0002							
10/7/2016	<0.0002		<0.0002	<0.0002	0.00014 (J)	<0.0002	<0.0002		
10/10/2016								<0.0002	<0.0002
12/5/2016		<0.0002							
12/6/2016	<0.0002			<0.0002	0.00016 (J)	<0.0002			
12/7/2016							8E-05 (J)	<0.0002	
12/8/2016			<0.0002						<0.0002
2/15/2017		<0.0002							
2/16/2017	<0.0002			<0.0002	0.00017 (J)	<0.0002	<0.0002		
2/17/2017								<0.0002	<0.0002
2/21/2017			<0.0002						
4/18/2017	<0.0002	<0.0002		<0.0002					
4/19/2017					0.00014 (J)	<0.0002	<0.0002	<0.0002	<0.0002
4/21/2017			<0.0002						
5/30/2017				<0.0002	0.00023 (J)				
6/1/2017						<0.0002	<0.0002	<0.0002	<0.0002
6/2/2017	<0.0002	<0.0002							
6/6/2017			<0.0002						
6/15/2017			6.2E-05 (J)						
7/12/2017	<0.0002								
7/13/2017		<0.0002							
7/14/2017				<0.0002	0.00016 (J)	<0.0002	<0.0002		
7/18/2017								<0.0002	<0.0002
7/19/2017			<0.0002						
3/27/2018	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002		
3/28/2018		<0.0002						<0.0002	<0.0002
3/29/2018			<0.0002						
2/25/2019				<0.0002					
2/27/2019					0.00029 (J)	7.9E-05 (J)		6.6E-05 (J)	
2/28/2019	4.8E-05 (J)	5.8E-05 (J)							
3/1/2019							5E-05 (J)		
3/6/2019			<0.0002						
4/1/2019		<0.0002							
4/2/2019	<0.0002			<0.0002	0.0004	<0.0002			
4/3/2019							<0.0002	<0.0002	<0.0002
4/4/2019			<0.0002						
Mean	9.527E-05	9.618E-05	9.683E-05	9.982E-05	0.0001955	9.809E-05	9.364E-05	9.691E-05	0.0001
Std. Dev.	1.568E-05	1.266E-05	1.097E-05	6E-07	8.43E-05	6.332E-06	1.567E-05	1.025E-05	0
Upper Lim.	0.0001	0.0001	0.0001	0.0001	0.0002657	0.0001	0.0001	0.0001	0.0001
Lower Lim.	4.8E-05	5.8E-05	6.2E-05	9.8E-05	0.0001252	7.9E-05	5E-05	6.6E-05	0.0001

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								8E-05 (J)
6/7/2016							9.7E-05 (J)	
6/8/2016	9.2E-05 (J)			<0.0002		<0.0002		
6/9/2016		<0.0002	<0.0002					
8/10/2016							<0.0002	
8/11/2016						<0.0002		<0.0002
8/15/2016				<0.0002				
8/18/2016	<0.0002	<0.0002	<0.0002					
10/4/2016							<0.0002	
10/5/2016								<0.0002
10/6/2016						<0.0002		
10/10/2016	<0.0002	<0.0002	4E-05 (J)	<0.0002				
12/2/2016							<0.0002	
12/5/2016								<0.0002
12/6/2016						<0.0002		
12/7/2016		5E-05 (J)	7E-05 (J)					
12/8/2016	<0.0002			<0.0002				
1/23/2017					8E-05 (J)			
2/7/2017					0.00011 (J)			
2/14/2017							<0.0002	
2/15/2017						<0.0002		<0.0002
2/17/2017	<0.0002							
2/20/2017		<0.0002	5E-05 (J)	<0.0002				
3/27/2017					8E-05 (J)			
4/14/2017							<0.0002	
4/17/2017					4E-05 (J)			<0.0002
4/18/2017						<0.0002		
4/19/2017		<0.0002	0.00016 (J)					
4/20/2017	<0.0002			<0.0002				
5/22/2017					<0.0002			
5/26/2017							<0.0002	<0.0002
6/1/2017				<0.0002				
6/2/2017						<0.0002		
6/5/2017	<0.0002	<0.0002	0.00013 (J)		6E-05 (J)			
7/10/2017							<0.0002	
7/11/2017					9.1E-05 (J)			<0.0002
7/14/2017						<0.0002		
7/17/2017		<0.0002	0.00013 (J)	<0.0002				
7/19/2017	<0.0002							
8/23/2017					5E-05 (J)			
3/26/2018					<0.0002		<0.0002	
3/27/2018						<0.0002		<0.0002
3/28/2018				<0.0002				
3/29/2018	<0.0002	<0.0002	<0.0002					
2/25/2019							<0.0002	
2/28/2019						5.3E-05 (J)		
3/1/2019	4.2E-05 (J)	4.4E-05 (J)	0.00093	4.7E-05 (J)	0.0001 (J)			
4/1/2019							<0.0002	<0.0002
4/2/2019					<0.0002	<0.0002		
4/3/2019	<0.0002	<0.0002	0.0013					
4/4/2019				<0.0002				
Mean	9.4E-05	9.036E-05	0.0002827	9.518E-05	8.282E-05	9.573E-05	9.973E-05	9.8E-05

Confidence Interval

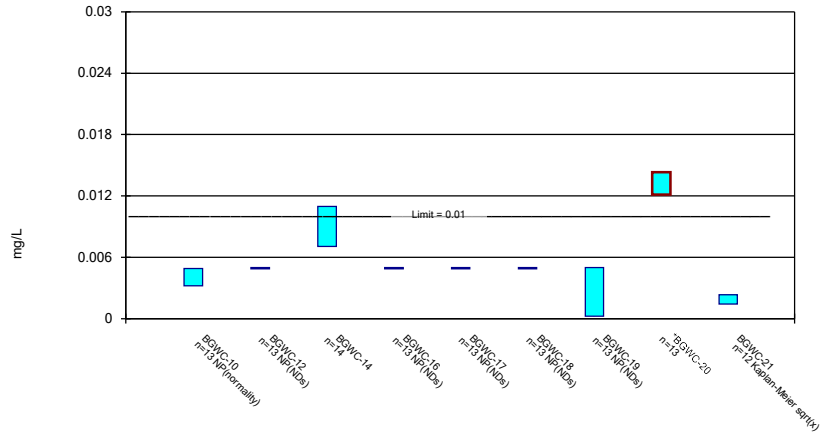
Constituent: Mercury (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
Std. Dev.	1.741E-05	2.148E-05	0.0004212	1.598E-05	2.331E-05	1.417E-05	9E-07	6.325E-06
Upper Lim.	0.0001	0.0001	0.0003115	0.0001	9.315E-05	0.0001	0.0001	0.0001
Lower Lim.	4.2E-05	4.4E-05	4.586E-05	4.7E-05	5.21E-05	5.3E-05	9.7E-05	8E-05

Parametric and Non-Parametric (NP) Confidence Interval

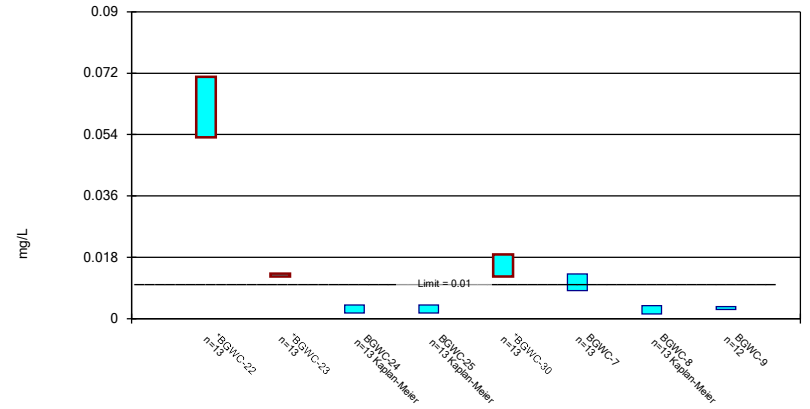
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Molybdenum Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

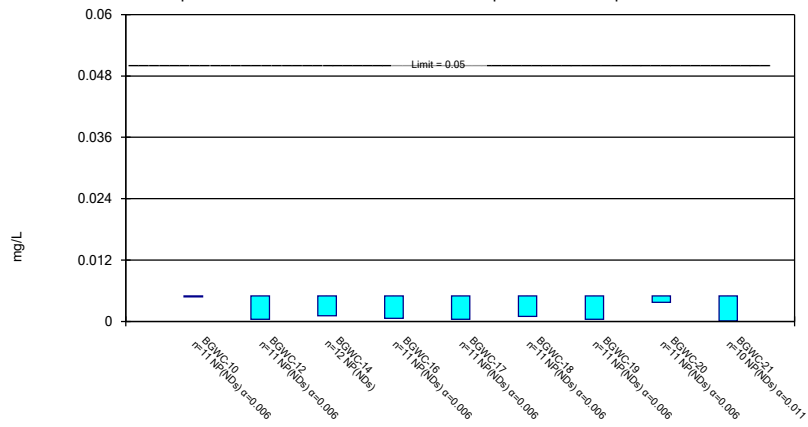
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Molybdenum Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

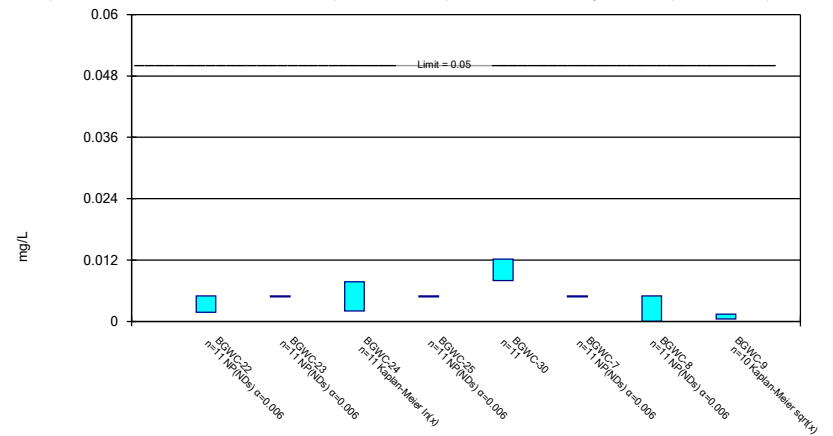
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Selenium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Selenium Analysis Run 11/6/2019 11:30 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0067 (J)	<0.01		<0.01	<0.01				
6/8/2016						<0.01	<0.01	0.011 (J)	0.0027 (J)
6/10/2016			0.014 (J)						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	0.0127	
8/16/2016	0.0032 (J)								
8/17/2016			0.0085 (J)						
8/18/2016									0.0023 (J)
10/6/2016		<0.01							
10/7/2016	0.0032 (J)		0.0072 (J)	<0.01	<0.01	<0.01	<0.01		
10/10/2016								0.0136	0.0025 (J)
12/5/2016		<0.01							
12/6/2016	0.0049 (J)			<0.01	<0.01	<0.01			
12/7/2016							<0.01	0.0139	
12/8/2016			0.0082 (J)						<0.01
2/15/2017		<0.01							
2/16/2017	0.0039 (J)			<0.01	<0.01	<0.01	<0.01		
2/17/2017								0.0148	<0.01
2/21/2017			0.0076 (J)						
4/18/2017	0.0032 (J)	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	0.012	0.0014 (J)
4/21/2017			0.0052 (J)						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	0.0125	0.0012 (J)
6/2/2017	0.0035 (J)	<0.01							
6/6/2017			0.0079 (J)						
6/15/2017			0.0052 (J)						
7/12/2017	0.0037 (J)								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								0.0155	0.0013 (J)
7/19/2017			0.0073 (J)						
3/27/2018	0.0032 (J)			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						0.012	<0.01
3/29/2018			0.012						
6/12/2018				<0.01					
6/13/2018								0.016	
6/14/2018	0.0033 (J)	<0.01			<0.01	<0.01			<0.01
6/15/2018			0.012				<0.01		
10/17/2018		<0.01			<0.01				
10/18/2018	0.0034 (J)			<0.01		<0.01			
10/19/2018			0.0094 (J)				<0.01		<0.01
10/22/2018								0.013	
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		0.013	
2/28/2019	0.0035 (J)	<0.01							
3/1/2019							<0.01		
3/6/2019			0.013						
4/1/2019		<0.01							
4/2/2019	0.0032 (J)			<0.01	<0.01	<0.01			
4/3/2019							0.00023 (J)	0.012	0.0019 (J)
4/4/2019			0.0088 (J)						

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.003762	0.005	0.009021	0.005	0.005	0.005	0.004633	0.01323	0.003192
Std. Dev.	0.001	0	0.002749	0	0	0	0.001323	0.001481	0.001659
Upper Lim.	0.0049	0.005	0.01097	0.005	0.005	0.005	0.005	0.01433	0.002329
Lower Lim.	0.0032	0.005	0.007074	0.005	0.005	0.005	0.00023	0.01213	0.001438

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.0028 (J)
6/7/2016							0.00063 (J)	
6/8/2016	0.07			0.0064 (J)		0.0088 (J)		
6/9/2016		0.013 (J)	0.0024 (J)					
8/10/2016							0.0039 (J)	
8/11/2016						0.01		0.003 (J)
8/15/2016				0.0039 (J)				
8/18/2016	0.0758	0.0136	0.0034 (J)					
10/4/2016							0.0052 (J)	
10/5/2016								0.0032 (J)
10/6/2016						0.0117		
10/10/2016	0.0712	0.0134	0.0047 (J)	0.0029 (J)				
12/2/2016							<0.01	
12/5/2016								0.0033 (J)
12/6/2016						0.0102		
12/7/2016		0.0128	0.0066 (J)					
12/8/2016	0.0682			<0.01				
1/23/2017					0.0125			
2/7/2017					0.0163			
2/14/2017							0.0044 (J)	
2/15/2017						0.0018 (J)		0.0027 (J)
2/17/2017	0.066							
2/20/2017		0.0122	0.0026 (J)	0.0024 (J)				
3/27/2017					0.0157			
4/14/2017							0.0013 (J)	
4/17/2017					0.0178			0.0025 (J)
4/18/2017						0.0103		
4/19/2017		0.0124	0.002 (J)					
4/20/2017	0.0662			0.0019 (J)				
5/22/2017					0.0208			
5/26/2017							0.0024 (J)	0.0029 (J)
6/1/2017				0.0026 (J)				
6/2/2017						0.0129		
6/5/2017	0.071	0.0115	0.0015 (J)		0.0191			
7/10/2017							0.0013 (J)	
7/11/2017					0.0218			0.0029 (J)
7/14/2017						0.0129		
7/17/2017		0.0131	0.0013 (J)	0.0024 (J)				
7/19/2017	0.0703							
8/23/2017					0.0218			
3/26/2018					0.014		<0.01	
3/27/2018						0.01		0.0031 (J)
3/28/2018				<0.01				
3/29/2018	0.056	0.013	0.0027 (J)					
6/12/2018							0.0026 (J)	0.0043 (J)
6/13/2018		0.013	<0.01			0.013		
6/14/2018	0.059			<0.01				
6/15/2018					0.012			
10/16/2018							0.0041 (J)	
10/17/2018								0.0038 (J)
10/18/2018						0.01 (J)		
10/22/2018	0.055	0.013	<0.01	<0.01	0.01			

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.01	
2/28/2019						0.016		
3/1/2019	0.039	0.013	<0.01	<0.01	0.011			
4/1/2019							0.00054 (J)	0.0027 (J)
4/2/2019					0.01	0.011		
4/3/2019	0.039	0.012	0.00095 (J)					
4/4/2019				0.00096 (J)				
Mean	0.06205	0.01277	0.003319	0.003728	0.0156	0.01066	0.003182	0.0031
Std. Dev.	0.01195	0.0005865	0.001771	0.001627	0.004383	0.003277	0.001788	0.0005081
Upper Lim.	0.07094	0.01321	0.004028	0.004007	0.01886	0.0131	0.003806	0.003499
Lower Lim.	0.05317	0.01233	0.001602	0.001616	0.01234	0.008225	0.001325	0.002701

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		<0.01	0.0004 (J)				
6/8/2016						<0.01	0.00043 (J)	<0.01	<0.01
6/10/2016			<0.01						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		
10/10/2016								<0.01	0.001 (J)
12/5/2016		<0.01							
12/6/2016	<0.01			<0.01	<0.01	<0.01			
12/7/2016							<0.01	0.0037 (J)	
12/8/2016			<0.01						<0.01
2/15/2017		<0.01							
2/16/2017	<0.01			0.0012 (J)	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			0.0011 (J)						
4/18/2017	<0.01	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	<0.01							
6/6/2017			<0.01						
6/15/2017			<0.01						
7/12/2017	<0.01								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								<0.01	<0.01
7/19/2017			<0.01						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		<0.01	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		0.0004 (J)							
4/2/2019	<0.01			0.0006 (J)	0.00077 (J)	0.001 (J)			
4/3/2019							0.00058 (J)	<0.01	0.00012 (J)
4/4/2019			0.00014 (J)						
Mean	0.005	0.004582	0.00427	0.004255	0.004197	0.004636	0.004183	0.004882	0.004112
Std. Dev.	0	0.001387	0.001717	0.001664	0.001788	0.001206	0.001819	0.000392	0.001884
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.005	0.0004	0.0011	0.0006	0.0004	0.001	0.00043	0.0037	0.00012

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.00031 (J)
6/7/2016							4.8E-05 (J)	
6/8/2016	<0.01			<0.01		<0.01		
6/9/2016		<0.01	0.00099 (J)					
8/10/2016							<0.01	
8/11/2016						<0.01		0.001 (J)
8/15/2016				<0.01				
8/18/2016	<0.01	<0.01	0.0023 (J)					
10/4/2016							<0.01	
10/5/2016								0.0017 (J)
10/6/2016						<0.01		
10/10/2016	<0.01	<0.01	0.004 (J)	<0.01				
12/2/2016							<0.01	
12/5/2016								<0.01
12/6/2016						<0.01		
12/7/2016		0.0176	0.0302					
12/8/2016	0.012			<0.01				
1/23/2017					0.015			
2/7/2017					0.0114			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	<0.01							
2/20/2017		<0.01	0.0044 (J)	<0.01				
3/27/2017					0.0092 (J)			
4/14/2017							<0.01	
4/17/2017					0.0082 (J)			<0.01
4/18/2017						<0.01		
4/19/2017		<0.01	0.0046 (J)					
4/20/2017	<0.01			<0.01				
5/22/2017					0.0094 (J)			
5/26/2017							<0.01	0.0014 (J)
6/1/2017				<0.01				
6/2/2017						<0.01		
6/5/2017	0.0018 (J)	<0.01	0.0033 (J)		0.0118			
7/10/2017							<0.01	
7/11/2017					0.012			<0.01
7/14/2017						<0.01		
7/17/2017		<0.01	0.0052 (J)	<0.01				
7/19/2017	<0.01							
8/23/2017					0.0097 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	<0.01	<0.01	<0.01					
2/25/2019							<0.01	
2/28/2019						<0.01		
3/1/2019	<0.01	<0.01	<0.01	<0.01	0.01 (J)			
4/1/2019							0.00015 (J)	0.0004 (J)
4/2/2019					0.0092 (J)	<0.01		
4/3/2019	<0.01	<0.01	0.0038 (J)					
4/4/2019				<0.01				
Mean	0.005345	0.006145	0.006254	0.005	0.01008	0.005	0.004109	0.002981

Confidence Interval

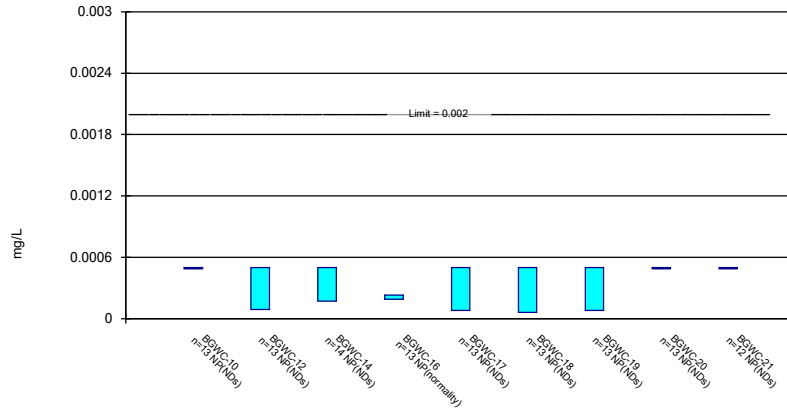
Constituent: Selenium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
Std. Dev.	0.002407	0.003799	0.008044	0	0.002532	0	0.001983	0.002166
Upper Lim.	0.005	0.005	0.007735	0.005	0.01219	0.005	0.005	0.001437
Lower Lim.	0.0018	0.005	0.002032	0.005	0.007972	0.005	4.8E-05	0.0004511

Non-Parametric Confidence Interval

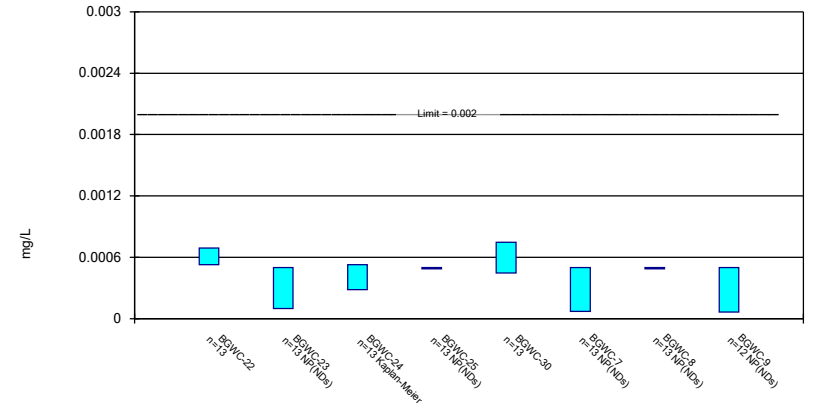
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 11/6/2019 11:30 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

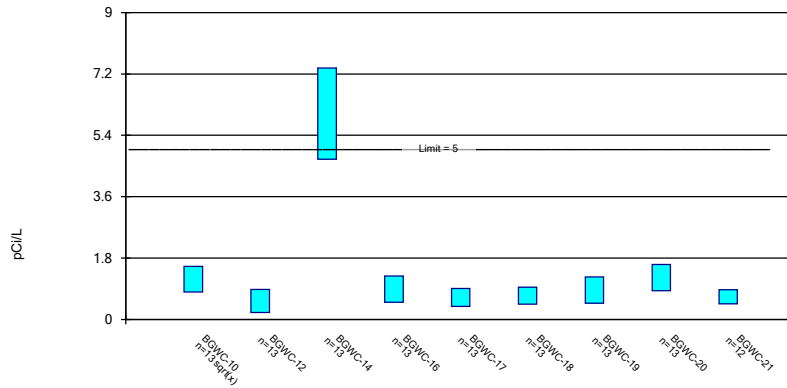
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Thallium Analysis Run 11/6/2019 11:30 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

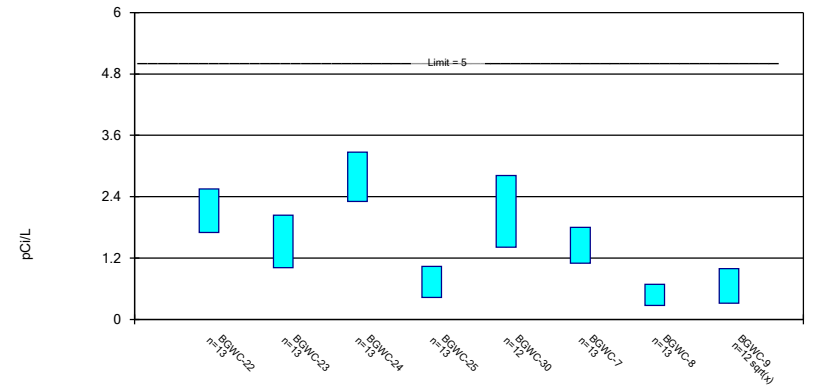
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Total Radium Analysis Run 11/6/2019 11:30 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Total Radium Analysis Run 11/6/2019 11:31 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.001	<0.001		0.0002 (J)	8.5E-05 (J)				
6/8/2016						<0.001	8.5E-05 (J)	<0.001	<0.001
6/10/2016			<0.001						
8/11/2016				0.0002 (J)	8E-05 (J)				
8/12/2016		9E-05 (J)				6E-05 (J)	8E-05 (J)	<0.001	
8/16/2016	<0.001								
8/17/2016			<0.001						
8/18/2016									<0.001
10/6/2016		<0.001							
10/7/2016	<0.001		<0.001	0.0002 (J)	<0.001	<0.001	<0.001		
10/10/2016								<0.001	<0.001
12/5/2016		<0.001							
12/6/2016	<0.001			0.0003 (J)	<0.001	<0.001			
12/7/2016							<0.001	<0.001	
12/8/2016			<0.001						<0.001
2/15/2017		<0.001							
2/16/2017	<0.001			0.0003 (J)	<0.001	<0.001	<0.001		
2/17/2017								<0.001	<0.001
2/21/2017			<0.001						
4/18/2017	<0.001	9E-05 (J)		0.0002 (J)					
4/19/2017					8E-05 (J)	<0.001	6E-05 (J)	<0.001	<0.001
4/21/2017			<0.001						
5/30/2017				0.0002 (J)	9E-05 (J)				
6/1/2017						<0.001	8E-05 (J)	<0.001	<0.001
6/2/2017	<0.001	<0.001							
6/6/2017			<0.001						
6/15/2017			<0.001						
7/12/2017	<0.001								
7/13/2017		8E-05 (J)							
7/14/2017				0.0002 (J)	9E-05 (J)	<0.001	8E-05 (J)		
7/18/2017								<0.001	<0.001
7/19/2017			<0.001						
3/27/2018	<0.001			0.00019 (J)	<0.001	<0.001	<0.001		
3/28/2018		<0.001						<0.001	<0.001
3/29/2018			<0.001						
6/12/2018				0.0002 (J)					
6/13/2018								<0.001	
6/14/2018	<0.001	<0.001			<0.001	<0.001			<0.001
6/15/2018			<0.001				<0.001		
10/17/2018		<0.001			<0.001				
10/18/2018	<0.001			0.0002 (J)		<0.001			
10/19/2018			0.00017 (J)				<0.001		<0.001
10/22/2018								<0.001	
2/25/2019				0.00023 (J)					
2/27/2019					<0.001	<0.001		<0.001	
2/28/2019	<0.001	<0.001							
3/1/2019							<0.001		
3/6/2019			<0.001						
4/1/2019		<0.001							
4/2/2019	<0.001			0.0002 (J)	7.5E-05 (J)	<0.001			
4/3/2019							<0.001	<0.001	<0.001
4/4/2019			<0.001						

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.0005	0.0004046	0.0004764	0.0002169	0.0003077	0.0004662	0.0003373	0.0005	0.0005
Std. Dev.	0	0.0001813	8.82E-05	3.794E-05	0.0002162	0.000122	0.0002143	0	0
Upper Lim.	0.0005	0.0005	0.0005	0.00023	0.0005	0.0005	0.0005	0.0005	0.0005
Lower Lim.	0.0005	9E-05	0.00017	0.00019	8E-05	6E-05	8E-05	0.0005	0.0005

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.001
6/7/2016							<0.001	
6/8/2016	0.00035 (J)			<0.001		<0.001		
6/9/2016		0.0001 (J)	0.00022 (J)					
8/10/2016							<0.001	
8/11/2016						<0.001		<0.001
8/15/2016				<0.001				
8/18/2016	0.0005 (J)	<0.001	<0.001					
10/4/2016							<0.001	
10/5/2016								<0.001
10/6/2016						<0.001		
10/10/2016	0.0006 (J)	<0.001	0.0003 (J)	<0.001				
12/2/2016							<0.001	
12/5/2016								<0.001
12/6/2016						<0.001		
12/7/2016		<0.001	<0.001					
12/8/2016	0.0005 (J)			<0.001				
1/23/2017					0.0008 (J)			
2/7/2017					0.0008 (J)			
2/14/2017							<0.001	
2/15/2017						<0.001		<0.001
2/17/2017	0.0006 (J)							
2/20/2017		<0.001	0.0003 (J)	<0.001				
3/27/2017					0.0006 (J)			
4/14/2017							<0.001	
4/17/2017					0.0007 (J)			<0.001
4/18/2017						<0.001		
4/19/2017		<0.001	0.0004 (J)					
4/20/2017	0.0006 (J)			<0.001				
5/22/2017					0.0008 (J)			
5/26/2017							<0.001	<0.001
6/1/2017				<0.001				
6/2/2017						<0.001		
6/5/2017	0.0006 (J)	<0.001	0.0004 (J)		0.0007 (J)			
7/10/2017							<0.001	
7/11/2017					0.0007 (J)			<0.001
7/14/2017						<0.001		
7/17/2017		<0.001	0.0004 (J)	<0.001				
7/19/2017	0.0007 (J)							
8/23/2017					0.0007 (J)			
3/26/2018					0.00058 (J)		<0.001	
3/27/2018						<0.001		<0.001
3/28/2018				<0.001				
3/29/2018	0.00063 (J)	<0.001	0.00048 (J)					
6/12/2018							<0.001	<0.001
6/13/2018		<0.001	0.00053 (J)			<0.001		
6/14/2018	0.00069 (J)			<0.001				
6/15/2018					0.00056 (J)			
10/16/2018							<0.001	
10/17/2018								<0.001
10/18/2018						<0.001		
10/22/2018	0.00071 (J)	<0.001	0.00047 (J)	<0.001	0.00034 (J)			

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.001	
2/28/2019						<0.001		
3/1/2019	0.00074 (J)	<0.001	0.0007 (J)	<0.001	0.00024 (J)			
4/1/2019							<0.001	6.5E-05 (J)
4/2/2019					0.00024 (J)	7E-05 (J)		
4/3/2019	0.0007 (J)	<0.001	0.00064 (J)					
4/4/2019				<0.001				
Mean	0.0006092	0.0004692	0.0004492	0.0005	0.0005969	0.0004669	0.0005	0.0004638
Std. Dev.	0.0001088	0.0001109	0.0001344	0	0.0002018	0.0001193	0	0.0001256
Upper Lim.	0.0006901	0.0005	0.0005277	0.0005	0.000747	0.0005	0.0005	0.0005
Lower Lim.	0.0005283	0.0001	0.000282	0.0005	0.0004469	7E-05	0.0005	6.5E-05

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.616	0.024 (U)		0.284 (U)	0.135 (U)				
6/8/2016						0.406	0.264 (U)	0.863 (U)	0.573
8/11/2016				1.71	0.808				
8/12/2016		0.849				1.39	1.18	1.74	
8/16/2016	1.08								
8/17/2016			5.18						
8/18/2016									0.44 (U)
10/6/2016		1.57							
10/7/2016	2.82			0.485 (U)	0.874 (U)	0.451 (U)	1.97		
10/10/2016								0.944 (U)	0.933 (U)
12/5/2016		0.956							
12/6/2016	0.719 (U)			1.22	0.131 (U)	0.516 (U)			
12/7/2016							1.31 (U)	2.29	
12/8/2016									1.02 (U)
2/15/2017		0.229 (U)							
2/16/2017	0.966 (U)			0.19 (U)	0.471 (U)	0.172 (U)	0.35 (U)		
2/17/2017								1.35 (U)	0.193 (U)
2/21/2017			5.1						
4/18/2017	1.01 (U)	0.0114 (U)		0.52 (U)					
4/19/2017					0.65 (U)	0.704 (U)	0.974 (U)	1.48	0.488 (U)
5/26/2017			7.14						
5/30/2017				1.21 (U)	0.65 (U)				
6/1/2017						0.493 (U)	0.332 (U)	1.61	0.837 (U)
6/2/2017	1.13 (U)	0.375 (U)							
6/6/2017			4.68						
6/15/2017			5.69						
7/12/2017	1.29		2.92						
7/13/2017		0.636 (U)							
7/14/2017				0.526 (U)	0.592 (U)	0.547 (U)	1.27		
7/18/2017									0.498 (U)
7/19/2017								1.626	
8/10/2017			6.51						
8/25/2017			7.04						
3/27/2018	0.779 (U)			1.34	0.551 (U)	0.569 (U)	0.169 (U)		
3/28/2018		0.36 (U)						0.97 (U)	0.864 (U)
3/29/2018			6.35						
6/12/2018				0.732 (U)					
6/13/2018								0.686 (U)	
6/14/2018	1.22 (U)	0.316 (U)			0.638 (U)	0.989 (U)			0.583 (U)
6/15/2018			6.2				0.625 (U)		
10/17/2018		0.326 (U)			0.555 (U)				
10/18/2018	0.841 (U)			0.522 (U)		0.875 (U)			
10/19/2018			3.76				0.784 (U)		0.982 (U)
10/22/2018								0.559 (U)	
2/25/2019				1.08					
2/27/2019					1.57	1.12		1.24	
2/28/2019	1.88	1.04							
3/1/2019							0.989 (U)		
3/6/2019			9.46						
4/1/2019		0.328 (U)							
4/2/2019	1.21 (U)			1.73	0.71 (U)	0.814 (U)			
4/3/2019							0.98 (U)	0.567 (U)	0.532 (U)

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
4/4/2019			8.48						
Mean	1.197	0.54	6.039	0.8884	0.6412	0.6958	0.8613	1.225	0.6619
Std. Dev.	0.5834	0.4501	1.797	0.5227	0.3551	0.3322	0.5149	0.5189	0.2581
Upper Lim.	1.552	0.8748	7.375	1.277	0.9052	0.9428	1.244	1.611	0.8645
Lower Lim.	0.8002	0.2053	4.703	0.4997	0.3771	0.4489	0.4784	0.8391	0.4594

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.488
6/7/2016							0.0507 (U)	
6/8/2016	1.53			0.314 (U)		0.854		
6/9/2016		0.704	2.13					
8/10/2016							0.862 (U)	
8/11/2016						1.24		0.639 (U)
8/15/2016				1.2				
8/18/2016	2.47	1.88	2.67					
10/4/2016							0.48 (U)	
10/5/2016								0.945 (U)
10/6/2016						2.43		
10/10/2016	2.11	1.48	3.46	1.03 (U)				
12/2/2016							0.219 (U)	
12/5/2016								2.2
12/6/2016						0.958 (U)		
12/7/2016		2.61	1.65					
12/8/2016	2.64			1.47 (U)				
1/23/2017					2.17			
2/7/2017					3			
2/14/2017							0.636 (U)	
2/15/2017						1.18		0.74 (U)
2/17/2017	1.34							
2/20/2017		0.884 (U)	2.68	0.547 (U)				
4/14/2017							0.13 (U)	
4/17/2017					2.73			0.764 (U)
4/18/2017						1.26		
4/19/2017		0.948 (U)	3.81					
4/20/2017	2.35			0.0595 (U)				
5/22/2017					3.15			
5/26/2017							0.349 (U)	0.245 (U)
6/1/2017				0.67 (U)				
6/2/2017						1.24 (U)		
6/5/2017	1.6	1.33	2.86		0.86 (U)			
7/10/2017							0.565 (U)	
7/11/2017					1.87			0.502 (U)
7/14/2017						1.55		
7/17/2017		1.04	2.87	1.25 (U)				
7/19/2017	1.76							
8/23/2017					3.39			
3/26/2018					1.61		0.303 (U)	
3/27/2018						2.15		0.745 (U)
3/28/2018				0.507 (U)				
3/29/2018	2.43	1.65	2.79					
6/12/2018							0.494 (U)	0.319 (U)
6/13/2018		0.983 (U)	2.19			1.95		
6/14/2018	2.14			0.721 (U)				
6/15/2018					0.815 (U)			
10/16/2018							0.633 (U)	
10/17/2018								0.319 (U)
10/18/2018						1.1		
10/22/2018	1.43	1.21	2.18	0.741 (U)	1.02 (U)			
2/25/2019							1.03 (U)	

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 11/6/2019 11:37 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/28/2019						1.38		
3/1/2019	3.32	2.24	3.37	0.634 (U)	2.47			
4/1/2019							0.474 (U)	0.225 (U)
4/2/2019					2.29	1.57		
4/3/2019	2.48	2.86	3.6					
4/4/2019				0.346 (U)				
Mean	2.123	1.525	2.789	0.73	2.115	1.451	0.4789	0.6776
Std. Dev.	0.5733	0.6891	0.6447	0.4078	0.8943	0.4696	0.2779	0.5328
Upper Lim.	2.549	2.037	3.269	1.033	2.816	1.8	0.6856	0.9916
Lower Lim.	1.697	1.012	2.31	0.4268	1.413	1.102	0.2722	0.318

USEPA Based Groundwater Protection Standards Statistical Analysis Package

AM 01

Tolerance Limit

Plant Bowen Client: Georgia Power Company Data: Bowen AP-1 Printed 7/18/2019, 1:48 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper 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>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	20	95	n/a	0.3585	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	26	38.46	n/a	0.2635	NP Inter(normal...
Barium (mg/L)	n/a	0.218	n/a	n/a	n/a	26	0	n/a	0.2635	NP Inter(normal...
Beryllium (mg/L)	n/a	0.003	n/a	n/a	n/a	22	100	n/a	0.3235	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	n/a	n/a	26	96.15	n/a	0.2635	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	22	68.18	n/a	0.3235	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.005	n/a	n/a	n/a	26	92.31	n/a	0.2635	NP Inter(NDs)
Fluoride (mg/L)	n/a	0.2073	n/a	n/a	n/a	28	28.57	x^(1/3)	0.05	Inter
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	22	86.36	n/a	0.3235	NP Inter(NDs)
Lithium (mg/L)	n/a	0.025	n/a	n/a	n/a	26	96.15	n/a	0.2635	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	22	90.91	n/a	0.3235	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	26	65.38	n/a	0.2635	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	n/a	n/a	22	95.45	n/a	0.3235	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	26	80.77	n/a	0.2635	NP Inter(NDs)
Total Radium (pCi/L)	n/a	1.761	n/a	n/a	n/a	26	0	No	0.05	Inter

Table F-2
USEPA Based Groundwater Protection Standards
Plant Bowen - Ash Pond 1
Bartow County, Georgia

Constituent	CAS	Units	EPA MCL	Statistically Derived Upper Tolerance Limit for Background	GWPS¹
Antimony	7440-36-0	mg/L	0.006	0.003	0.006
Arsenic	7440-38-2	mg/L	0.01	0.005	0.01
Barium	7440-39-3	mg/L	2	0.22	2
Beryllium	7440-41-7	mg/L	0.004	0.003	0.004
Cadmium	7440-43-9	mg/L	0.005	0.001	0.005
Chromium	7440-47-3	mg/L	0.1	0.01	0.1
Cobalt ²	7440-48-4	mg/L	0.006	0.005	0.006
Fluoride	16984-48-8	mg/L	4	0.21	4
Lead ³	7439-92-1	mg/L	0.015	0.005	0.015
Lithium ²	7439-93-2	mg/L	0.04	0.025	0.04
Mercury	7439-97-6	mg/L	0.002	0.0002	0.002
Molybdenum ²	7439-98-7	mg/L	0.1	0.01	0.1
Selenium	7782-49-2	mg/L	0.05	0.01	0.05
Thallium	7440-28-0	mg/L	0.002	0.001	0.002
Total Radium	7440-14-4	pCi/L	5	1.76	5

Notes:

EPA MCL - U.S. Environmental Protection Agency, Maximum Contaminant Level

GWPS - Groundwater Protection Standards

mg/L - milligram per liter

pCi/L - Picocuries per liter

¹GWPS selected as the greater value between the EPA MCL and the background Upper Tolerance Limit.

²Regional Screening Level applied for constituent per CCR Rule Amendment, July 30, 2018.

³Currently, there is no EPA MCL established for lead. The value listed is the established EPA Action Level for drinking water.

Confidence Interval (USEPA) - Significant Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:58 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Cobalt (mg/L)	BGWC-22	0.01672	0.01111	0.006	Yes	13	0	No	0.01	Param.

Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:58 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	BGWC-10	0.007834	0.00549	0.01	No	13	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-12	0.001051	0.0004674	0.01	No	13	46.15	No	0.01	Param.
Arsenic (mg/L)	BGWC-14	0.00344	0.00133	0.01	No	14	28.57	No	0.01	Param.
Arsenic (mg/L)	BGWC-16	0.0025	0.0007	0.01	No	13	53.85	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-17	0.0025	0.0006	0.01	No	13	61.54	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-18	0.0025	0.0005	0.01	No	13	61.54	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-19	0.0009461	0.0004034	0.01	No	13	38.46	sqrt(x)	0.01	Param.
Arsenic (mg/L)	BGWC-20	0.001734	0.0009353	0.01	No	13	30.77	No	0.01	Param.
Arsenic (mg/L)	BGWC-21	0.001447	0.0006695	0.01	No	12	33.33	No	0.01	Param.
Arsenic (mg/L)	BGWC-22	0.002928	0.001764	0.01	No	13	7.692	No	0.01	Param.
Arsenic (mg/L)	BGWC-23	0.002961	0.001612	0.01	No	13	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-24	0.007462	0.003076	0.01	No	13	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-25	0.002872	0.002082	0.01	No	13	7.692	No	0.01	Param.
Arsenic (mg/L)	BGWC-30	0.002499	0.0008552	0.01	No	13	23.08	No	0.01	Param.
Arsenic (mg/L)	BGWC-7	0.002693	0.001678	0.01	No	13	15.38	No	0.01	Param.
Arsenic (mg/L)	BGWC-8	0.0008728	0.000443	0.01	No	13	38.46	sqrt(x)	0.01	Param.
Arsenic (mg/L)	BGWC-9	0.003183	0.002167	0.01	No	12	8.333	No	0.01	Param.
Barium (mg/L)	BGWC-10	0.06779	0.05083	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-12	0.03289	0.02731	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-14	0.08196	0.06645	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-16	0.03123	0.02673	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-17	0.01872	0.01525	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-18	0.03678	0.02951	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-19	0.03986	0.03245	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-20	0.03404	0.02935	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-21	0.04957	0.04071	2	No	12	0	No	0.01	Param.
Barium (mg/L)	BGWC-22	0.0938	0.08677	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-23	0.09456	0.08307	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-24	0.1254	0.08209	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-25	0.03046	0.02056	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-30	0.1948	0.1105	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-7	0.04234	0.03674	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-8	0.03195	0.0245	2	No	13	0	x^2	0.01	Param.
Barium (mg/L)	BGWC-9	0.03368	0.02725	2	No	12	0	No	0.01	Param.
Beryllium (mg/L)	BGWC-10	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-12	0.0015	0.000076	0.004	No	11	90.91	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-14	0.0015	0.0015	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-16	0.0015	0.000063	0.004	No	11	81.82	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-17	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-18	0.0015	0.000052	0.004	No	11	72.73	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-19	0.0015	0.00007	0.004	No	11	81.82	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-20	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-21	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	BGWC-22	0.0015	0.000067	0.004	No	11	81.82	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-23	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-24	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-25	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-30	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-7	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-8	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)

Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Beryllium (mg/L)	BGWC-9	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	BGWC-10	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-12	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-14	0.0005	0.0005	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-16	0.001366	0.001126	0.005	No	13	0	No	0.01	Param.
Cadmium (mg/L)	BGWC-17	0.0005	0.0001	0.005	No	13	38.46	No	0.01	NP (normality)
Cadmium (mg/L)	BGWC-18	0.0005298	0.0001691	0.005	No	13	23.08	No	0.01	Param.
Cadmium (mg/L)	BGWC-19	0.0005	0.0001	0.005	No	13	84.62	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-20	0.0005	0.00008	0.005	No	13	92.31	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-21	0.0005	0.0005	0.005	No	12	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-22	0.0005	0.0002	0.005	No	13	84.62	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-23	0.0005	0.00019	0.005	No	13	92.31	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-24	0.005009	0.001917	0.005	No	13	0	No	0.01	Param.
Cadmium (mg/L)	BGWC-25	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-30	0.0003871	0.0001161	0.005	No	13	23.08	No	0.01	Param.
Cadmium (mg/L)	BGWC-7	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-8	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-9	0.0005	0.0005	0.005	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-10	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-12	0.005	0.0003	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-14	0.005	0.0014	0.1	No	12	83.33	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-16	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-17	0.005	0.00044	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-18	0.005	0.0011	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-19	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-20	0.005	0.00088	0.1	No	11	81.82	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-21	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	BGWC-22	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-23	0.005	0.00057	0.1	No	11	72.73	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-24	0.005	0.0009	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-25	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-30	0.001071	0.0005112	0.1	No	11	45.45	ln(x)	0.01	Param.
Chromium (mg/L)	BGWC-7	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-8	0.005	0.0008	0.1	No	11	36.36	No	0.006	NP (normality)
Chromium (mg/L)	BGWC-9	0.005	0.002	0.1	No	10	90	No	0.011	NP (NDs)
Cobalt (mg/L)	BGWC-10	0.0025	0.00027	0.006	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-12	0.0025	0.00034	0.006	No	13	76.92	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-14	0.0025	0.0003	0.006	No	14	78.57	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-16	0.005566	0.003941	0.006	No	13	7.692	No	0.01	Param.
Cobalt (mg/L)	BGWC-17	0.0025	0.00015	0.006	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-18	0.0025	0.0005	0.006	No	13	61.54	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-19	0.0025	0.000072	0.006	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-20	0.0025	0.0008	0.006	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-21	0.0025	0.00041	0.006	No	12	66.67	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-22	0.01672	0.01111	0.006	Yes	13	0	No	0.01	Param.
Cobalt (mg/L)	BGWC-23	0.0025	0.0015	0.006	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-24	0.004077	0.002369	0.006	No	13	7.692	No	0.01	Param.
Cobalt (mg/L)	BGWC-25	0.0025	0.0006	0.006	No	13	84.62	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-30	0.0008946	0.0003848	0.006	No	13	30.77	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BGWC-7	0.0025	0.0006	0.006	No	13	30.77	No	0.01	NP (normality)

Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	BGWC-8	0.0025	0.00013	0.006	No	13	76.92	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-9	0.0025	0.0003	0.006	No	12	75	No	0.01	NP (NDs)
Fluoride (mg/L)	BGWC-10	0.1765	0.0685	4	No	14	14.29	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-12	0.1616	0.04315	4	No	14	28.57	No	0.01	Param.
Fluoride (mg/L)	BGWC-14	0.4265	0.1206	4	No	14	14.29	No	0.01	Param.
Fluoride (mg/L)	BGWC-16	0.2735	0.09333	4	No	14	21.43	No	0.01	Param.
Fluoride (mg/L)	BGWC-17	0.321	0.143	4	No	14	7.143	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BGWC-18	0.2229	0.07721	4	No	14	14.29	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-19	0.1793	0.07155	4	No	14	14.29	ln(x)	0.01	Param.
Fluoride (mg/L)	BGWC-20	0.184	0.02696	4	No	14	21.43	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-21	0.07791	0.03087	4	No	13	30.77	No	0.01	Param.
Fluoride (mg/L)	BGWC-22	0.4711	0.2503	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	BGWC-23	0.2581	0.07169	4	No	14	14.29	ln(x)	0.01	Param.
Fluoride (mg/L)	BGWC-24	2.171	0.4218	4	No	14	7.143	No	0.01	Param.
Fluoride (mg/L)	BGWC-25	0.1197	0.06028	4	No	14	28.57	No	0.01	Param.
Fluoride (mg/L)	BGWC-30	0.4642	0.1415	4	No	14	0	No	0.01	Param.
Fluoride (mg/L)	BGWC-7	0.2108	0.1202	4	No	14	7.143	No	0.01	Param.
Fluoride (mg/L)	BGWC-8	0.15	0.02	4	No	14	42.86	No	0.01	NP (normality)
Fluoride (mg/L)	BGWC-9	0.3652	0.1363	4	No	13	0	No	0.01	Param.
Lead (mg/L)	BGWC-10	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-12	0.0025	0.0001	0.015	No	11	54.55	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-14	0.0025	0.00009	0.015	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-16	0.0025	0.0001	0.015	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-17	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-18	0.0025	0.000081	0.015	No	11	36.36	No	0.006	NP (normality)
Lead (mg/L)	BGWC-19	0.0025	0.0006	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-20	0.0025	0.0001	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-21	0.0025	0.000068	0.015	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	BGWC-22	0.0025	0.00033	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-23	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-24	0.0025	0.00007	0.015	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-25	0.0025	0.00007	0.015	No	11	54.55	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-30	0.0025	0.00008	0.015	No	11	63.64	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-7	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-8	0.0025	0.0003	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-9	0.0025	0.000092	0.015	No	10	50	No	0.011	NP (normality)
Lithium (mg/L)	BGWC-10	0.0125	0.0011	0.04	No	13	38.46	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-12	0.0125	0.0011	0.04	No	13	84.62	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-14	0.0125	0.0125	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-16	0.0125	0.00049	0.04	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-17	0.0125	0.00069	0.04	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-18	0.0125	0.0125	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-19	0.0125	0.0125	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-20	0.02268	0.01584	0.04	No	13	0	No	0.01	Param.
Lithium (mg/L)	BGWC-21	0.0125	0.0125	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-22	0.02199	0.01238	0.04	No	13	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	BGWC-23	0.0139	0.009483	0.04	No	13	0	No	0.01	Param.
Lithium (mg/L)	BGWC-24	0.007629	0.005354	0.04	No	13	7.692	ln(x)	0.01	Param.
Lithium (mg/L)	BGWC-25	0.0125	0.0125	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-30	0.01838	0.01127	0.04	No	13	0	x^3	0.01	Param.

Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:58 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Lithium (mg/L)	BGWC-7	0.0101	0.008149	0.04	No	13	7.692	No	0.01	Param.
Lithium (mg/L)	BGWC-8	0.0125	0.001	0.04	No	13	92.31	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-9	0.0125	0.0012	0.04	No	12	58.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-10	0.0001	0.000048	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-12	0.0001	0.000058	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-14	0.0001	0.000062	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-16	0.0001	0.000098	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-17	0.0002657	0.0001252	0.002	No	11	9.091	No	0.01	Param.
Mercury (mg/L)	BGWC-18	0.0001	0.000079	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-19	0.0001	0.00005	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-20	0.0001	0.000066	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-21	0.0001	0.0001	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	BGWC-22	0.0001	0.000042	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-23	0.0001	0.000044	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-24	0.0003115	0.00004586	0.002	No	11	27.27	ln(x)	0.01	Param.
Mercury (mg/L)	BGWC-25	0.0001	0.000047	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-30	0.00009315	0.0000521	0.002	No	11	27.27	No	0.01	Param.
Mercury (mg/L)	BGWC-7	0.0001	0.000053	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-8	0.0001	0.000097	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-9	0.0001	0.00008	0.002	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	BGWC-10	0.0049	0.0032	0.1	No	13	0	No	0.01	NP (normality)
Molybdenum (mg/L)	BGWC-12	0.005	0.005	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-14	0.01097	0.007074	0.1	No	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-16	0.005	0.005	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-17	0.005	0.005	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-18	0.005	0.005	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-19	0.005	0.00023	0.1	No	13	92.31	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-20	0.01433	0.01213	0.1	No	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-21	0.002329	0.001438	0.1	No	12	41.67	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	BGWC-22	0.07094	0.05317	0.1	No	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-23	0.01321	0.01233	0.1	No	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-24	0.004028	0.001602	0.1	No	13	23.08	No	0.01	Param.
Molybdenum (mg/L)	BGWC-25	0.004007	0.001616	0.1	No	13	38.46	No	0.01	Param.
Molybdenum (mg/L)	BGWC-30	0.01886	0.01234	0.1	No	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-7	0.0131	0.008225	0.1	No	13	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-8	0.003806	0.001325	0.1	No	13	23.08	No	0.01	Param.
Molybdenum (mg/L)	BGWC-9	0.003499	0.002701	0.1	No	12	0	No	0.01	Param.
Selenium (mg/L)	BGWC-10	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-12	0.005	0.0004	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-14	0.005	0.0011	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-16	0.005	0.0006	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-17	0.005	0.0004	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-18	0.005	0.001	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-19	0.005	0.00043	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-20	0.005	0.0037	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-21	0.005	0.00012	0.05	No	10	80	No	0.011	NP (NDs)
Selenium (mg/L)	BGWC-22	0.005	0.0018	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-23	0.005	0.005	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-24	0.007735	0.002032	0.05	No	11	18.18	ln(x)	0.01	Param.
Selenium (mg/L)	BGWC-25	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)

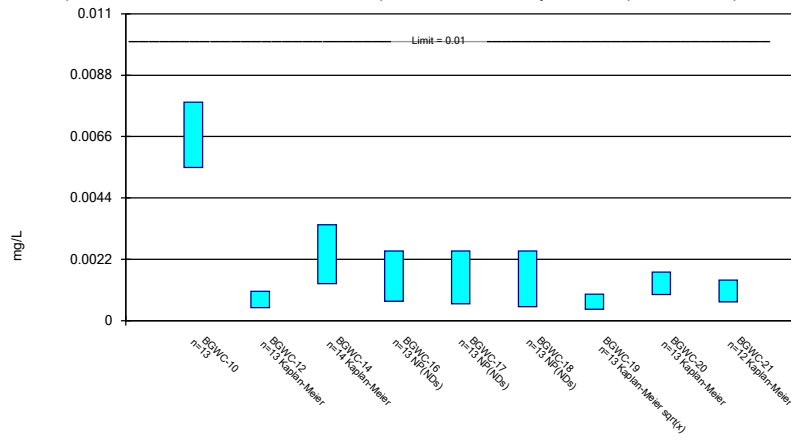
Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 11/6/2019, 11:58 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	BGWC-30	0.01219	0.007972	0.05	No	11	9.091	No	0.01	Param.
Selenium (mg/L)	BGWC-7	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-8	0.005	0.000048	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-9	0.001437	0.0004511	0.05	No	10	50	sqrt(x)	0.01	Param.
Thallium (mg/L)	BGWC-10	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-12	0.0005	0.00009	0.002	No	13	76.92	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-14	0.0005	0.00017	0.002	No	14	92.86	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-16	0.00023	0.00019	0.002	No	13	0	No	0.01	NP (normality)
Thallium (mg/L)	BGWC-17	0.0005	0.00008	0.002	No	13	53.85	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-18	0.0005	0.00006	0.002	No	13	92.31	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-19	0.0005	0.00008	0.002	No	13	61.54	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-20	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-21	0.0005	0.0005	0.002	No	12	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-22	0.0006901	0.0005283	0.002	No	13	0	No	0.01	Param.
Thallium (mg/L)	BGWC-23	0.0005	0.0001	0.002	No	13	92.31	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-24	0.0005277	0.000282	0.002	No	13	15.38	No	0.01	Param.
Thallium (mg/L)	BGWC-25	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-30	0.000747	0.0004469	0.002	No	13	0	No	0.01	Param.
Thallium (mg/L)	BGWC-7	0.0005	0.00007	0.002	No	13	92.31	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-8	0.0005	0.0005	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-9	0.0005	0.000065	0.002	No	12	91.67	No	0.01	NP (NDs)
Total Radium (pCi/L)	BGWC-10	1.552	0.8002	5	No	13	0	sqrt(x)	0.01	Param.
Total Radium (pCi/L)	BGWC-12	0.8748	0.2053	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-14	7.375	4.703	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-16	1.277	0.4997	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-17	0.9052	0.3771	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-18	0.9428	0.4489	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-19	1.244	0.4784	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-20	1.611	0.8391	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-21	0.8645	0.4594	5	No	12	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-22	2.549	1.697	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-23	2.037	1.012	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-24	3.269	2.31	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-25	1.033	0.4268	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-30	2.816	1.413	5	No	12	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-7	1.8	1.102	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-8	0.6856	0.2722	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-9	0.9916	0.318	5	No	12	0	sqrt(x)	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

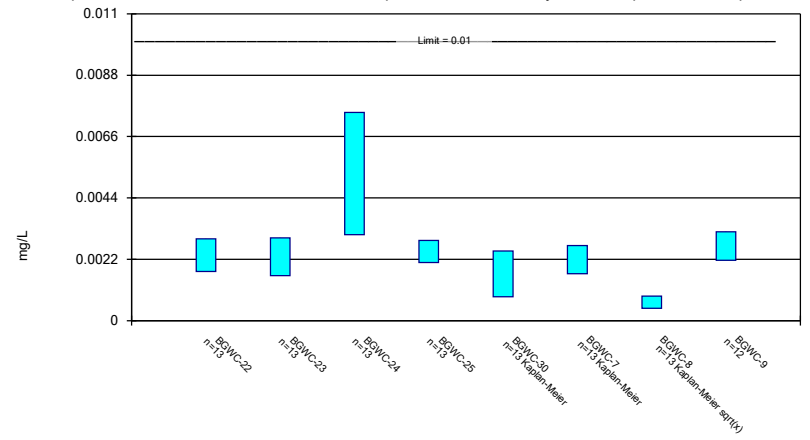
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 11/6/2019 11:55 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

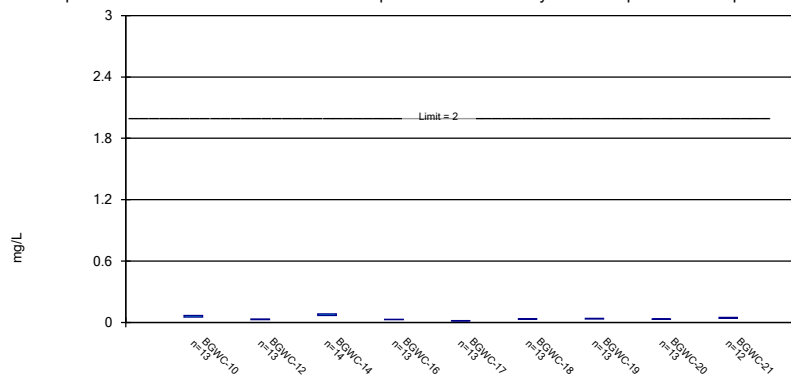
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 11/6/2019 11:55 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

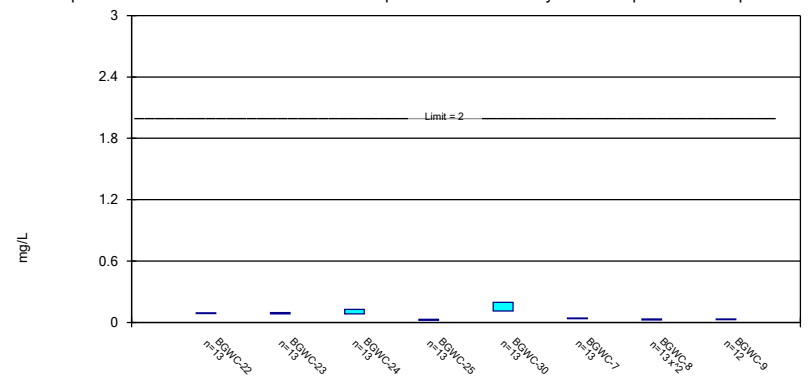
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 11/6/2019 11:55 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 11/6/2019 11:55 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0039	<0.005		<0.005	<0.005				
6/8/2016						<0.005	0.00046 (J)	0.0011 (J)	0.0015
6/10/2016			0.0049						
8/11/2016				<0.005	<0.005				
8/12/2016		0.0009 (J)				<0.005	0.0008 (J)	0.0017 (J)	
8/16/2016	0.0091								
8/17/2016			0.0042 (J)						
8/18/2016									<0.005
10/6/2016		<0.005							
10/7/2016	0.0074		<0.005	<0.005	<0.005	<0.005	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		<0.005							
12/6/2016	0.0044 (J)			<0.005	<0.005	<0.005			
12/7/2016							<0.005	<0.005	
12/8/2016			<0.005						<0.005
2/15/2017		<0.005							
2/16/2017	0.0081			<0.005	<0.005	<0.005	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	0.0084	0.0009 (J)		0.0007 (J)					
4/19/2017					0.0012 (J)	0.0013 (J)	0.0015 (J)	0.002 (J)	0.002 (J)
4/21/2017			0.0039 (J)						
5/30/2017				0.0008 (J)	0.0006 (J)				
6/1/2017						0.0005 (J)	0.0008 (J)	0.0017 (J)	0.0011 (J)
6/2/2017	0.008	0.0015 (J)							
6/6/2017			0.001 (J)						
6/15/2017			0.0024 (J)						
7/12/2017	0.0063								
7/13/2017		0.0006 (J)							
7/14/2017				0.0008 (J)	<0.005	<0.005	0.0006 (J)		
7/18/2017								0.0018 (J)	0.0015 (J)
7/19/2017			0.0031 (J)						
3/27/2018	0.0064			0.0014 (J)	0.00076 (J)	0.00066 (J)	0.00082 (J)		
3/28/2018		0.0015 (J)						0.0018 (J)	0.0012 (J)
3/29/2018			0.0017 (J)						
6/12/2018				0.00073 (J)					
6/13/2018								0.0015 (J)	
6/14/2018	0.0075	0.00096 (J)			<0.005	<0.005			0.00087 (J)
6/15/2018			0.00074 (J)				0.00074 (J)		
10/17/2018		<0.005			<0.005				
10/18/2018	0.0056			<0.005		<0.005			
10/19/2018			<0.005				<0.005		0.00059 (J)
10/22/2018								<0.005	
2/25/2019				<0.005					
2/27/2019					0.001 (J)	0.00083 (J)		0.0014 (J)	
2/28/2019	0.0058	<0.005							
3/1/2019							<0.005		
3/6/2019			0.0015 (J)						
4/1/2019		0.00028 (J)							
4/2/2019	0.0057			0.0003 (J)	0.00024 (J)	0.00015 (J)			
4/3/2019							0.00017 (J)	0.00027 (J)	0.00038 (J)
4/4/2019			0.00041 (J)						

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.006662	0.001665	0.002418	0.00171	0.001831	0.001803	0.001415	0.00179	0.001595
Std. Dev.	0.001576	0.000864	0.001308	0.000917	0.0009066	0.0009497	0.0009392	0.0006519	0.0007903
Upper Lim.	0.007834	0.001051	0.00344	0.0025	0.0025	0.0025	0.0009461	0.001734	0.001447
Lower Lim.	0.00549	0.0004674	0.00133	0.0007	0.0006	0.0005	0.0004034	0.0009353	0.0006695

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.0022
6/7/2016							0.00018 (J)	
6/8/2016	0.0012 (J)			0.0037		0.0024		
6/9/2016		0.0012 (J)	0.0016					
8/10/2016							<0.005	
8/11/2016						0.0024 (J)		0.0028 (J)
8/15/2016				0.003 (J)				
8/18/2016	0.0022 (J)	0.003 (J)	0.0054					
10/4/2016							<0.005	
10/5/2016								0.002 (J)
10/6/2016						<0.005		
10/10/2016	0.002 (J)	0.0021 (J)	0.0079	0.0026 (J)				
12/2/2016							<0.005	
12/5/2016								<0.005
12/6/2016						<0.005		
12/7/2016		0.0023 (J)	0.0121					
12/8/2016	<0.005			<0.005				
1/23/2017					<0.005			
2/7/2017					<0.005			
2/14/2017							<0.005	
2/15/2017						0.003 (J)		0.0033 (J)
2/17/2017	0.0023 (J)							
2/20/2017		0.0025 (J)	0.0063	0.0029 (J)				
3/27/2017					0.0019 (J)			
4/14/2017							0.0007 (J)	
4/17/2017					0.0017 (J)			0.0028 (J)
4/18/2017						0.0029 (J)		
4/19/2017		0.0032 (J)	0.0051					
4/20/2017	0.0028 (J)			0.0024 (J)				
5/22/2017					0.0034 (J)			
5/26/2017							0.0008 (J)	0.0035 (J)
6/1/2017				0.0025 (J)				
6/2/2017						0.0031 (J)		
6/5/2017	0.0035 (J)	0.0043 (J)	0.0072		0.0039 (J)			
7/10/2017							0.0011 (J)	
7/11/2017					0.0016 (J)			0.0033 (J)
7/14/2017						0.0017 (J)		
7/17/2017		0.0017 (J)	0.0031 (J)	0.0021 (J)				
7/19/2017	0.0028 (J)							
8/23/2017					0.001 (J)			
3/26/2018					0.0015 (J)		0.0009 (J)	
3/27/2018						0.0028 (J)		0.0021 (J)
3/28/2018				0.0019 (J)				
3/29/2018	0.0037 (J)	0.0028 (J)	0.0075 (J)					
6/12/2018							0.00065 (J)	0.0015 (J)
6/13/2018		0.0019 (J)	0.0045 (J)			0.0023 (J)		
6/14/2018	0.0027 (J)			0.0022 (J)				
6/15/2018					0.00089 (J)			
10/16/2018							0.00064 (J)	
10/17/2018								0.0035 (J)
10/18/2018						0.0015 (J)		
10/22/2018	0.0016 (J)	0.0015 (J)	0.0027 (J)	0.0026 (J)	0.00064 (J)			

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.005	
2/28/2019						0.0011 (J)		
3/1/2019	0.0011 (J)	0.0023 (J)	0.0032 (J)	0.0022 (J)	<0.005			
4/1/2019							0.00041 (J)	0.0026 (J)
4/2/2019					0.00024 (J)	0.0016 (J)		
4/3/2019	0.0021 (J)	0.00093 (J)	0.0019 (J)					
4/4/2019				0.0016 (J)				
Mean	0.002346	0.002287	0.005269	0.002477	0.001867	0.002292	0.001375	0.002675
Std. Dev.	0.0007827	0.0009071	0.002949	0.000531	0.001072	0.0006304	0.0009505	0.0006468
Upper Lim.	0.002928	0.002961	0.007462	0.002872	0.002499	0.002693	0.0008728	0.003183
Lower Lim.	0.001764	0.001612	0.003076	0.002082	0.0008552	0.001678	0.000443	0.002167

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.091	0.027		0.027	0.017				
6/8/2016						0.039	0.036	0.036	0.054
6/10/2016			0.08						
8/11/2016				0.0292	0.0152				
8/12/2016		0.026				0.031	0.0412	0.0283	
8/16/2016	0.0667								
8/17/2016			0.0801						
8/18/2016									0.0479
10/6/2016		0.0308							
10/7/2016	0.0631		0.0764	0.0295	0.0225	0.0427	0.0427		
10/10/2016								0.0288	0.0433
12/5/2016		0.0258							
12/6/2016	0.0659			0.0367	0.0171	0.0398			
12/7/2016							0.0338	0.0279	
12/8/2016			0.0723						0.0474
2/15/2017		0.029							
2/16/2017	0.0621			0.0315	0.0187	0.0309	0.0407		
2/17/2017								0.0316	0.0483
2/21/2017			0.0789						
4/18/2017	0.0545	0.0294		0.0272					
4/19/2017					0.0183	0.0325	0.042	0.0367	0.0486
4/21/2017			0.0871						
5/30/2017				0.0316	0.0179				
6/1/2017						0.0331	0.0341	0.0361	0.0468
6/2/2017	0.0555	0.0354							
6/6/2017			0.0789						
6/15/2017			0.0822						
7/12/2017	0.0572								
7/13/2017		0.0329							
7/14/2017				0.029	0.0191	0.0349	0.0405		
7/18/2017								0.0346	0.0494
7/19/2017			0.091						
3/27/2018	0.051			0.027	0.015	0.027	0.029		
3/28/2018		0.034						0.03	0.043
3/29/2018			0.067						
6/12/2018				0.029					
6/13/2018								0.031	
6/14/2018	0.053	0.032			0.016	0.032			0.042
6/15/2018			0.066				0.032		
10/17/2018		0.033			0.015				
10/18/2018	0.053			0.026		0.033			
10/19/2018			0.065				0.037		0.038
10/22/2018								0.03	
2/25/2019				0.028					
2/27/2019					0.014	0.027		0.032	
2/28/2019	0.053	0.033							
3/1/2019							0.028		
3/6/2019			0.065						
4/1/2019		0.023							
4/2/2019	0.045			0.025	0.015	0.028			
4/3/2019							0.033	0.029	0.033
4/4/2019			0.049						

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.05931	0.0301	0.07421	0.02898	0.01698	0.03315	0.03615	0.03169	0.04514
Std. Dev.	0.0114	0.003754	0.01094	0.003025	0.002333	0.004885	0.004978	0.003153	0.005643
Upper Lim.	0.06779	0.03289	0.08196	0.03123	0.01872	0.03678	0.03986	0.03404	0.04957
Lower Lim.	0.05083	0.02731	0.06645	0.02673	0.01525	0.02951	0.03245	0.02935	0.04071

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.034
6/7/2016							0.0051	
6/8/2016	0.092			0.038		0.048		
6/9/2016		0.11	0.14					
8/10/2016							0.0264	
8/11/2016						0.0428		0.0305
8/15/2016				0.0321				
8/18/2016	0.0953	0.0893	0.113					
10/4/2016							0.0316	
10/5/2016								0.0289
10/6/2016						0.0404		
10/10/2016	0.0954	0.0839	0.0888	0.0283				
12/2/2016							0.026	
12/5/2016								0.0269
12/6/2016						0.0385		
12/7/2016		0.0912	0.0289					
12/8/2016	0.0991			0.0294				
1/23/2017					0.237			
2/7/2017					0.191			
2/14/2017							0.0299	
2/15/2017						0.039		0.0299
2/17/2017	0.0927							
2/20/2017		0.0813	0.0999	0.0275				
3/27/2017					0.197			
4/14/2017							0.0275	
4/17/2017					0.192			0.0318
4/18/2017						0.0392		
4/19/2017		0.087	0.114					
4/20/2017	0.086			0.0279				
5/22/2017					0.197			
5/26/2017							0.0328	0.0341
6/1/2017				0.0313				
6/2/2017						0.0407		
6/5/2017	0.0875	0.084	0.135		0.201			
7/10/2017							0.0305	
7/11/2017					0.179			0.0355
7/14/2017						0.0394		
7/17/2017		0.0809	0.134	0.0251				
7/19/2017	0.0877							
8/23/2017					0.15			
3/26/2018					0.1		0.029	
3/27/2018						0.039		0.026
3/28/2018				0.018				
3/29/2018	0.088	0.085	0.08					
6/12/2018							0.031	0.024
6/13/2018		0.091	0.1			0.038		
6/14/2018	0.093			0.019				
6/15/2018					0.087			
10/16/2018							0.034	
10/17/2018								0.037
10/18/2018						0.037		
10/22/2018	0.088	0.087	0.1	0.018	0.1			

Confidence Interval

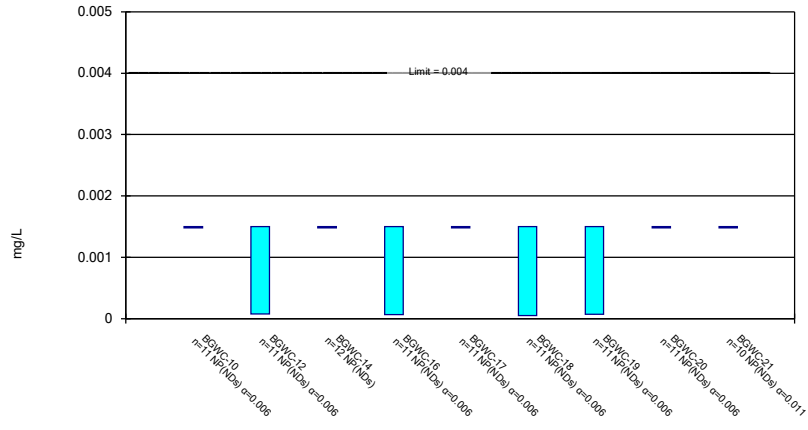
Constituent: Barium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							0.03	
2/28/2019						0.041		
3/1/2019	0.087	0.097	0.12	0.021	0.078			
4/1/2019							0.025	0.027
4/2/2019					0.075	0.031		
4/3/2019	0.082	0.087	0.095					
4/4/2019				0.016				
Mean	0.09028	0.08882	0.1037	0.02551	0.1526	0.03954	0.0276	0.03047
Std. Dev.	0.004724	0.007732	0.02911	0.006656	0.05669	0.003764	0.007269	0.004098
Upper Lim.	0.0938	0.09456	0.1254	0.03046	0.1948	0.04234	0.03195	0.03368
Lower Lim.	0.08677	0.08307	0.08209	0.02056	0.1105	0.03674	0.0245	0.02725

Non-Parametric Confidence Interval

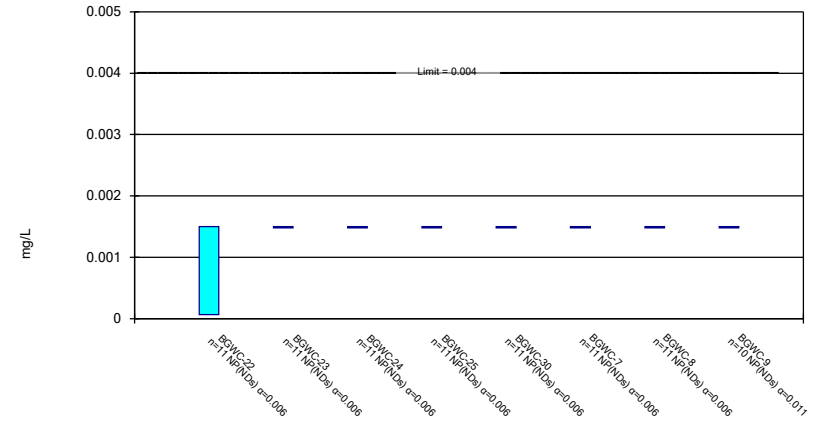
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 11/6/2019 11:55 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

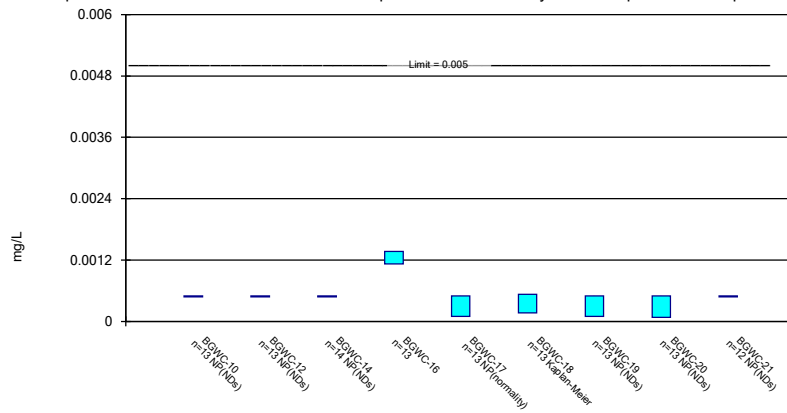
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 11/6/2019 11:55 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

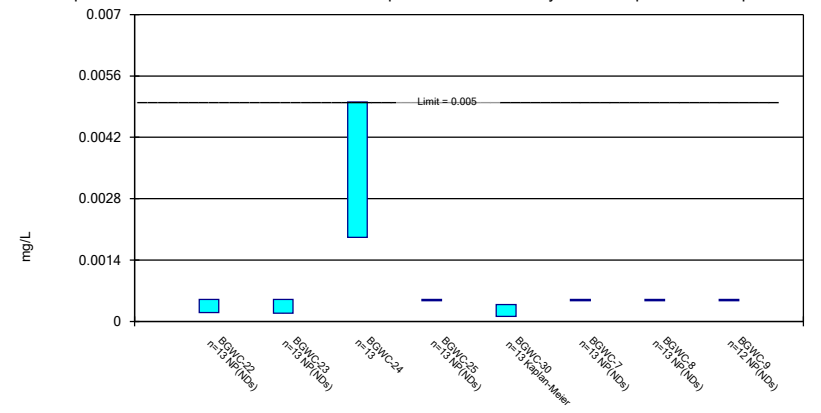
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.003	<0.003		<0.003	<0.003				
6/8/2016						<0.003	<0.003	<0.003	<0.003
6/10/2016			<0.003						
8/11/2016				<0.003	<0.003				
8/12/2016		<0.003				<0.003	<0.003	<0.003	
8/16/2016	<0.003								
8/17/2016			<0.003						
8/18/2016									<0.003
10/6/2016		<0.003							
10/7/2016	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003		
10/10/2016								<0.003	<0.003
12/5/2016		<0.003							
12/6/2016	<0.003			<0.003	<0.003	<0.003			
12/7/2016							<0.003	<0.003	
12/8/2016			<0.003						<0.003
2/15/2017		<0.003							
2/16/2017	<0.003			<0.003	<0.003	<0.003	<0.003		
2/17/2017								<0.003	<0.003
2/21/2017			<0.003						
4/18/2017	<0.003	<0.003		<0.003					
4/19/2017					<0.003	<0.003	8E-05 (J)	<0.003	<0.003
4/21/2017			<0.003						
5/30/2017				<0.003	<0.003				
6/1/2017						9E-05 (J)	7E-05 (J)	<0.003	<0.003
6/2/2017	<0.003	<0.003							
6/6/2017			<0.003						
6/15/2017			<0.003						
7/12/2017	<0.003								
7/13/2017		<0.003							
7/14/2017				<0.003	<0.003	<0.003	<0.003		
7/18/2017								<0.003	<0.003
7/19/2017			<0.003						
3/27/2018	<0.003			<0.003	<0.003	<0.003	<0.003		
3/28/2018		<0.003						<0.003	<0.003
3/29/2018			<0.003						
2/25/2019				8.7E-05 (J)					
2/27/2019					<0.003	0.00011 (J)		<0.003	
2/28/2019	<0.003	7.6E-05 (J)							
3/1/2019							<0.003		
3/6/2019			<0.003						
4/1/2019		<0.003							
4/2/2019	<0.003			6.3E-05 (J)	<0.003	5.2E-05 (J)			
4/3/2019							<0.003	<0.003	<0.003
4/4/2019			<0.003						
Mean	0.0015	0.001371	0.0015	0.001241	0.0015	0.001114	0.001241	0.0015	0.0015
Std. Dev.	0	0.0004294	0	0.0005765	0	0.0006615	0.0005764	0	0
Upper Lim.	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Lower Lim.	0.0015	7.6E-05	0.0015	6.3E-05	0.0015	5.2E-05	7E-05	0.0015	0.0015

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.001	<0.001		0.0011 (J)	<0.001				
6/8/2016						0.00063 (J)	<0.001	<0.001	<0.001
6/10/2016			<0.001						
8/11/2016				0.0011	0.0001 (J)				
8/12/2016		<0.001				0.0004 (J)	<0.001	<0.001	
8/16/2016	<0.001								
8/17/2016			<0.001						
8/18/2016									<0.001
10/6/2016		<0.001							
10/7/2016	<0.001		<0.001	0.0012	0.0002 (J)	0.0008 (J)	0.0001 (J)		
10/10/2016								<0.001	<0.001
12/5/2016		<0.001							
12/6/2016	<0.001			0.0012	0.0001 (J)	0.0006 (J)			
12/7/2016							<0.001	<0.001	
12/8/2016			<0.001						<0.001
2/15/2017		<0.001							
2/16/2017	<0.001			0.0015	0.0001 (J)	0.0002 (J)	<0.001		
2/17/2017								8E-05 (J)	<0.001
2/21/2017			<0.001						
4/18/2017	<0.001	<0.001		0.0012					
4/19/2017					0.0001 (J)	9E-05 (J)	<0.001	<0.001	<0.001
4/21/2017			<0.001						
5/30/2017				0.0011	0.0002 (J)				
6/1/2017						0.0003 (J)	0.0001 (J)	<0.001	<0.001
6/2/2017	<0.001	<0.001							
6/6/2017			<0.001						
6/15/2017			<0.001						
7/12/2017	<0.001								
7/13/2017		<0.001							
7/14/2017				0.0012	0.0002 (J)	0.0002 (J)	<0.001		
7/18/2017								<0.001	<0.001
7/19/2017			<0.001						
3/27/2018	<0.001			0.0013	<0.001	<0.001	<0.001		
3/28/2018		<0.001						<0.001	<0.001
3/29/2018			<0.001						
6/12/2018				0.0011					
6/13/2018								<0.001	
6/14/2018	<0.001	<0.001			0.00015 (J)	<0.001			<0.001
6/15/2018			<0.001				<0.001		
10/17/2018		<0.001			<0.001				
10/18/2018	<0.001			0.0012		0.00032 (J)			
10/19/2018			<0.001				<0.001		<0.001
10/22/2018								<0.001	
2/25/2019				0.0016					
2/27/2019					<0.001	<0.001		<0.001	
2/28/2019	<0.001	<0.001							
3/1/2019							<0.001		
3/6/2019			<0.001						
4/1/2019		<0.001							
4/2/2019	<0.001			0.0014	<0.001	7.3E-05 (J)			
4/3/2019							<0.001	<0.001	<0.001
4/4/2019			<0.001						

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.0005	0.0005	0.0005	0.001246	0.0002808	0.0003933	0.0004385	0.0004677	0.0005
Std. Dev.	0	0	0	0.0001613	0.0001843	0.0002202	0.0001502	0.0001165	0
Upper Lim.	0.0005	0.0005	0.0005	0.001366	0.0005	0.0005298	0.0005	0.0005	0.0005
Lower Lim.	0.0005	0.0005	0.0005	0.001126	0.0001	0.0001691	0.0001	8E-05	0.0005

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.001
6/7/2016							<0.001	
6/8/2016	<0.001			<0.001		<0.001		
6/9/2016		<0.001	0.00052 (J)					
8/10/2016							<0.001	
8/11/2016						<0.001		<0.001
8/15/2016				<0.001				
8/18/2016	<0.001	<0.001	0.0009 (J)					
10/4/2016							<0.001	
10/5/2016								<0.001
10/6/2016						<0.001		
10/10/2016	<0.001	<0.001	0.0017	<0.001				
12/2/2016							<0.001	
12/5/2016								<0.001
12/6/2016						<0.001		
12/7/2016		<0.001	0.0004 (J)					
12/8/2016	0.0002 (J)			<0.001				
1/23/2017					0.0003 (J)			
2/7/2017					0.0006 (J)			
2/14/2017							<0.001	
2/15/2017						<0.001		<0.001
2/17/2017	<0.001							
2/20/2017		<0.001	0.0028	<0.001				
3/27/2017					0.0003 (J)			
4/14/2017							<0.001	
4/17/2017					0.0002 (J)			<0.001
4/18/2017						<0.001		
4/19/2017		<0.001	0.0035					
4/20/2017	<0.001			<0.001				
5/22/2017					0.0003 (J)			
5/26/2017							<0.001	<0.001
6/1/2017				<0.001				
6/2/2017						<0.001		
6/5/2017	<0.001	<0.001	0.0035		0.0003 (J)			
7/10/2017							<0.001	
7/11/2017					0.0005 (J)			<0.001
7/14/2017						<0.001		
7/17/2017		<0.001	0.0037	<0.001				
7/19/2017	<0.001							
8/23/2017					0.0004 (J)			
3/26/2018					<0.001		<0.001	
3/27/2018						<0.001		<0.001
3/28/2018				<0.001				
3/29/2018	<0.001	<0.001	0.0063					
6/12/2018							<0.001	<0.001
6/13/2018		<0.001	0.0053			<0.001		
6/14/2018	<0.001			<0.001				
6/15/2018					0.0002 (J)			
10/16/2018							<0.001	
10/17/2018								<0.001
10/18/2018						<0.001		
10/22/2018	<0.001	<0.001	0.0053	<0.001	<0.001			

Confidence Interval

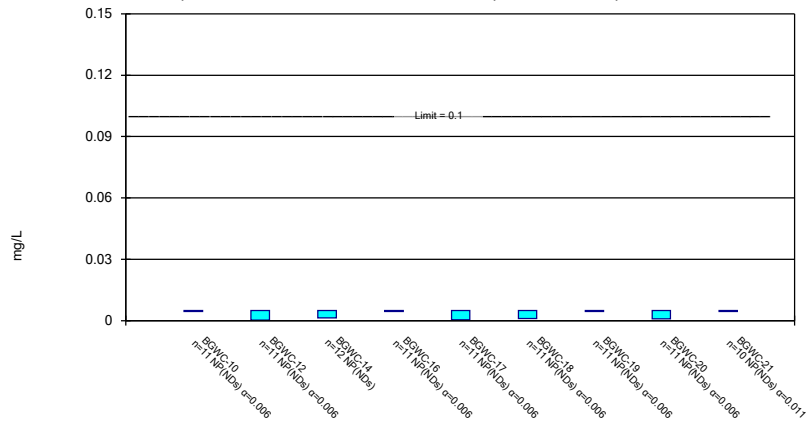
Constituent: Cadmium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.001	
2/28/2019						<0.001		
3/1/2019	0.00013 (J)	0.00019 (J)	0.0058	<0.001	<0.001			
4/1/2019							<0.001	<0.001
4/2/2019					7.9E-05 (J)	<0.001		
4/3/2019	<0.001	<0.001	0.0053					
4/4/2019				<0.001				
Mean	0.0004485	0.0004762	0.003463	0.0005	0.0003599	0.0005	0.0005	0.0005
Std. Dev.	0.0001266	8.598E-05	0.002079	0	0.0001533	0	0	0
Upper Lim.	0.0005	0.0005	0.005009	0.0005	0.0003871	0.0005	0.0005	0.0005
Lower Lim.	0.0002	0.00019	0.001917	0.0005	0.0001161	0.0005	0.0005	0.0005

Non-Parametric Confidence Interval

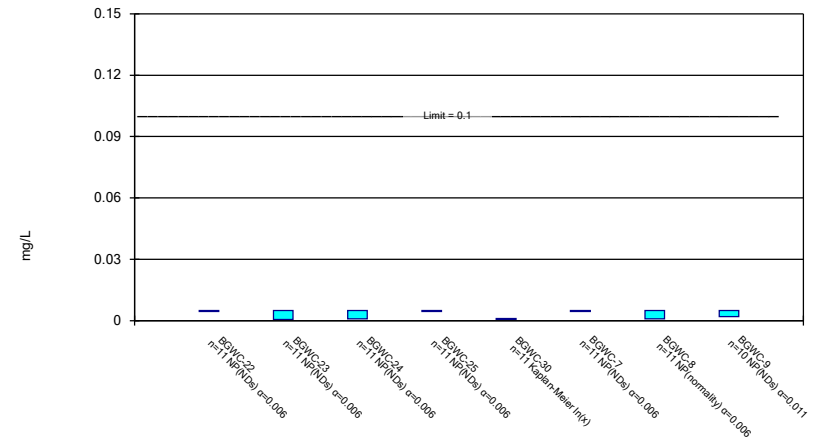
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Chromium Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

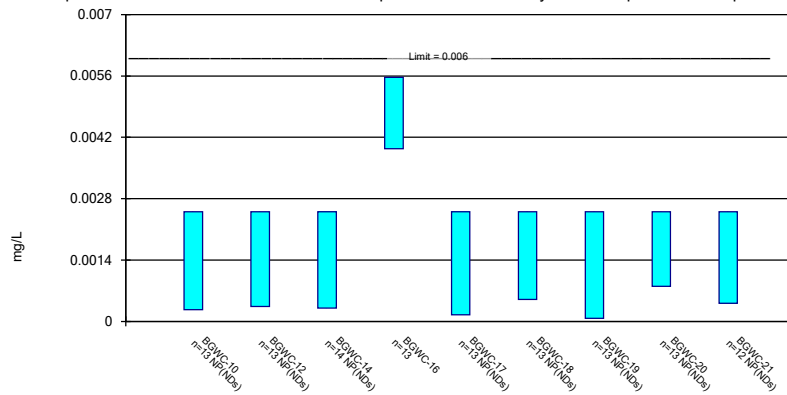
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chromium Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

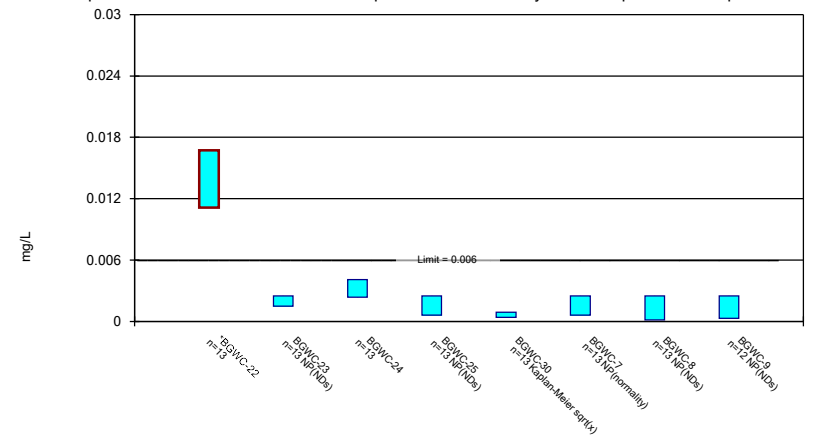
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		<0.01	<0.01				
6/8/2016						<0.01	<0.01	<0.01	<0.01
6/10/2016			<0.01						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		0.0014 (J)	<0.01	<0.01	0.0011 (J)	<0.01		
10/10/2016								<0.01	<0.01
12/5/2016		<0.01							
12/6/2016	<0.01			<0.01	<0.01	<0.01			
12/7/2016							<0.01	<0.01	
12/8/2016			<0.01						<0.01
2/15/2017		<0.01							
2/16/2017	<0.01			<0.01	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			<0.01						
4/18/2017	<0.01	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	0.0003 (J)							
6/6/2017			<0.01						
6/15/2017			<0.01						
7/12/2017	<0.01								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								<0.01	<0.01
7/19/2017			<0.01						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		0.0048 (J)	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		<0.01							
4/2/2019	<0.01			<0.01	0.00044 (J)	<0.01			
4/3/2019							<0.01	0.00088 (J)	<0.01
4/4/2019			0.00057 (J)						
Mean	0.005	0.004573	0.004331	0.005	0.004585	0.004645	0.005	0.004607	0.005
Std. Dev.	0	0.001417	0.001573	0	0.001375	0.001176	0	0.001238	0
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.005	0.0003	0.0014	0.005	0.00044	0.0011	0.005	0.00088	0.005

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.01
6/7/2016							<0.01	
6/8/2016	<0.01			<0.01		<0.01		
6/9/2016		<0.01	<0.01					
8/10/2016							0.0052 (J)	
8/11/2016						<0.01		<0.01
8/15/2016				<0.01				
8/18/2016	<0.01	<0.01	<0.01					
10/4/2016							0.0015 (J)	
10/5/2016								0.002 (J)
10/6/2016						<0.01		
10/10/2016	<0.01	<0.01	0.0009 (J)	<0.01				
12/2/2016							0.0013 (J)	
12/5/2016								<0.01
12/6/2016						<0.01		
12/7/2016		0.002 (J)	<0.01					
12/8/2016	<0.01			<0.01				
1/23/2017					0.001 (J)			
2/7/2017					<0.01			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	<0.01							
2/20/2017		<0.01	<0.01	<0.01				
3/27/2017					<0.01			
4/14/2017							0.0011 (J)	
4/17/2017					<0.01			<0.01
4/18/2017						<0.01		
4/19/2017		<0.01	<0.01					
4/20/2017	<0.01			<0.01				
5/22/2017					0.0004 (J)			
5/26/2017							0.0008 (J)	<0.01
6/1/2017				<0.01				
6/2/2017						<0.01		
6/5/2017	<0.01	<0.01	<0.01		0.0004 (J)			
7/10/2017							0.0009 (J)	
7/11/2017					0.0012 (J)			<0.01
7/14/2017						<0.01		
7/17/2017		<0.01	<0.01	<0.01				
7/19/2017	<0.01							
8/23/2017					0.0009 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	<0.01	<0.01	<0.01					
2/25/2019							<0.01	
2/28/2019						<0.01		
3/1/2019	<0.01	0.0033 (J)	<0.01	<0.01	<0.01			
4/1/2019							0.00091 (J)	<0.01
4/2/2019					0.00095 (J)	<0.01		
4/3/2019	<0.01	0.00057 (J)	<0.01					
4/4/2019				<0.01				
Mean	0.005	0.00417	0.004627	0.005	0.002714	0.005	0.002883	0.0047

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
Std. Dev.	0	0.001547	0.001236	0	0.002202	0	0.002075	0.0009487
Upper Lim.	0.005	0.005	0.005	0.005	0.001071	0.005	0.005	0.005
Lower Lim.	0.005	0.00057	0.0009	0.005	0.0005112	0.005	0.0008	0.002

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.005	<0.005		0.0037	<0.005				
6/8/2016						0.00071 (J)	<0.005	<0.005	0.00041 (J)
6/10/2016			<0.005						
8/11/2016				0.0039 (J)	<0.005				
8/12/2016		<0.005				0.0006 (J)	<0.005	<0.005	
8/16/2016	<0.005								
8/17/2016			<0.005						
8/18/2016									<0.005
10/6/2016		<0.005							
10/7/2016	<0.005		<0.005	0.0043 (J)	<0.005	0.0005 (J)	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		0.0006 (J)							
12/6/2016	<0.005			0.005 (J)	<0.005	0.0009 (J)			
12/7/2016							<0.005	0.0008 (J)	
12/8/2016			<0.005						0.0006 (J)
2/15/2017		<0.005							
2/16/2017	<0.005			0.0054 (J)	<0.005	<0.005	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	<0.005	<0.005		0.0054 (J)					
4/19/2017					<0.005	<0.005	<0.005	<0.005	<0.005
4/21/2017			<0.005						
5/30/2017				0.0045 (J)	<0.005				
6/1/2017						<0.005	<0.005	<0.005	<0.005
6/2/2017	<0.005	<0.005							
6/6/2017			<0.005						
6/15/2017			0.0003 (J)						
7/12/2017	<0.005								
7/13/2017		0.0003 (J)							
7/14/2017				0.0049 (J)	<0.005	<0.005	<0.005		
7/18/2017								<0.005	0.0004 (J)
7/19/2017			0.0003 (J)						
3/27/2018	<0.005			<0.005	<0.005	<0.005	<0.005		
3/28/2018		<0.005						<0.005	<0.005
3/29/2018			<0.005						
6/12/2018				0.0048 (J)					
6/13/2018								<0.005	
6/14/2018	<0.005	<0.005			<0.005	<0.005			<0.005
6/15/2018			<0.005				<0.005		
10/17/2018		<0.005			<0.005				
10/18/2018	<0.005			0.0047 (J)		<0.005			
10/19/2018			<0.005				<0.005		<0.005
10/22/2018								<0.005	
2/25/2019				0.0071 (J)					
2/27/2019					<0.005	<0.005		<0.005	
2/28/2019	<0.005	<0.005							
3/1/2019							<0.005		
3/6/2019			<0.005						
4/1/2019		0.00034 (J)							
4/2/2019	0.00027 (J)			0.0056 (J)	0.00015 (J)	0.00012 (J)			
4/3/2019							7.2E-05 (J)	0.00024 (J)	0.00064 (J)
4/4/2019			0.00015 (J)						

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.002328	0.002018	0.002018	0.004754	0.002319	0.001756	0.002313	0.002195	0.001837
Std. Dev.	0.0006185	0.0009175	0.0009587	0.001093	0.0006518	0.0009935	0.0006734	0.0007523	0.0009808
Upper Lim.	0.0025	0.0025	0.0025	0.005566	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.00027	0.00034	0.0003	0.003941	0.00015	0.0005	7.2E-05	0.0008	0.00041

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.005
6/7/2016							0.00013 (J)	
6/8/2016	0.0079			<0.005		0.00081 (J)		
6/9/2016		<0.005	0.0026					
8/10/2016							0.0003 (J)	
8/11/2016						0.0007 (J)		0.0003 (J)
8/15/2016				<0.005				
8/18/2016	0.0109	<0.005	0.0021 (J)					
10/4/2016							<0.005	
10/5/2016								<0.005
10/6/2016						<0.005		
10/10/2016	0.011	<0.005	0.0018 (J)	<0.005				
12/2/2016							<0.005	
12/5/2016								0.0006 (J)
12/6/2016						0.0009 (J)		
12/7/2016		0.0015 (J)	0.0018 (J)					
12/8/2016	0.013			0.0006 (J)				
1/23/2017					0.0012 (J)			
2/7/2017					0.0008 (J)			
2/14/2017							<0.005	
2/15/2017						<0.005		<0.005
2/17/2017	0.0122							
2/20/2017		<0.005	0.0027 (J)	<0.005				
3/27/2017					0.001 (J)			
4/14/2017							<0.005	
4/17/2017					0.0009 (J)			<0.005
4/18/2017						0.0005 (J)		
4/19/2017		<0.005	0.0032 (J)					
4/20/2017	0.0116			<0.005				
5/22/2017					0.0008 (J)			
5/26/2017							<0.005	<0.005
6/1/2017				<0.005				
6/2/2017						0.0006 (J)		
6/5/2017	0.0112	<0.005	0.0034 (J)		0.0008 (J)			
7/10/2017							<0.005	
7/11/2017					0.0008 (J)			<0.005
7/14/2017						0.0006 (J)		
7/17/2017		<0.005	0.0033 (J)	<0.005				
7/19/2017	0.0131							
8/23/2017					0.0006 (J)			
3/26/2018					<0.005		<0.005	
3/27/2018						<0.005		<0.005
3/28/2018				<0.005				
3/29/2018	0.016	<0.005	<0.005					
6/12/2018							<0.005	<0.005
6/13/2018		<0.005	0.0039 (J)			0.00068 (J)		
6/14/2018	0.017			<0.005				
6/15/2018					<0.005			
10/16/2018							<0.005	
10/17/2018								<0.005
10/18/2018						<0.005		
10/22/2018	0.021	<0.005	0.0043 (J)	<0.005	<0.005			

Confidence Interval

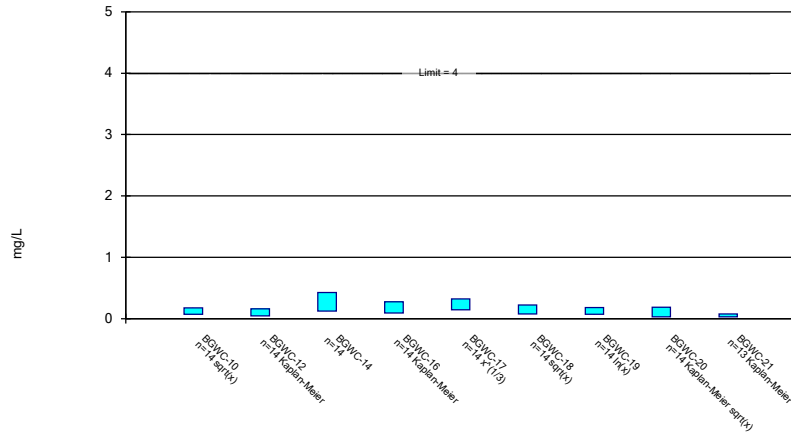
Constituent: Cobalt (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.005	
2/28/2019						0.00067 (J)		
3/1/2019	0.017	<0.005	0.0055 (J)	<0.005	<0.005			
4/1/2019							5.6E-05 (J)	0.00024 (J)
4/2/2019					0.00022 (J)	0.00094 (J)		
4/3/2019	0.019	0.00058 (J)	0.0048 (J)					
4/4/2019				0.00022 (J)				
Mean	0.01392	0.002275	0.003223	0.002178	0.001317	0.001262	0.00196	0.00197
Std. Dev.	0.003768	0.0005795	0.001148	0.0007887	0.0008501	0.0008676	0.001027	0.0009623
Upper Lim.	0.01672	0.0025	0.004077	0.0025	0.0008946	0.0025	0.0025	0.0025
Lower Lim.	0.01111	0.0015	0.002369	0.0006	0.0003848	0.0006	0.00013	0.0003

Parametric Confidence Interval

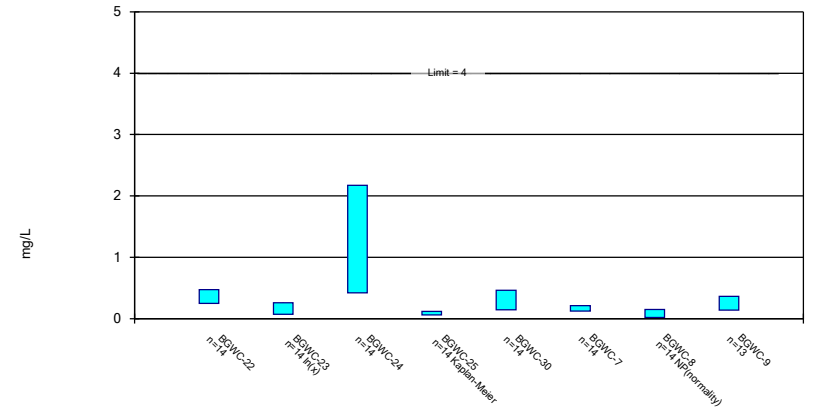
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Fluoride Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

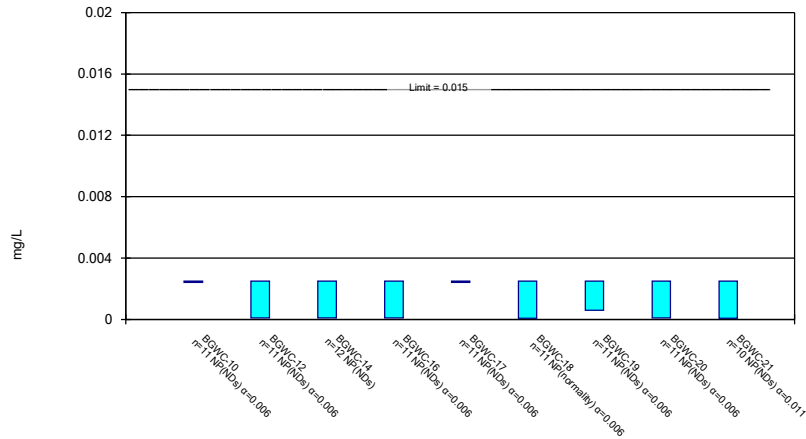
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Fluoride Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

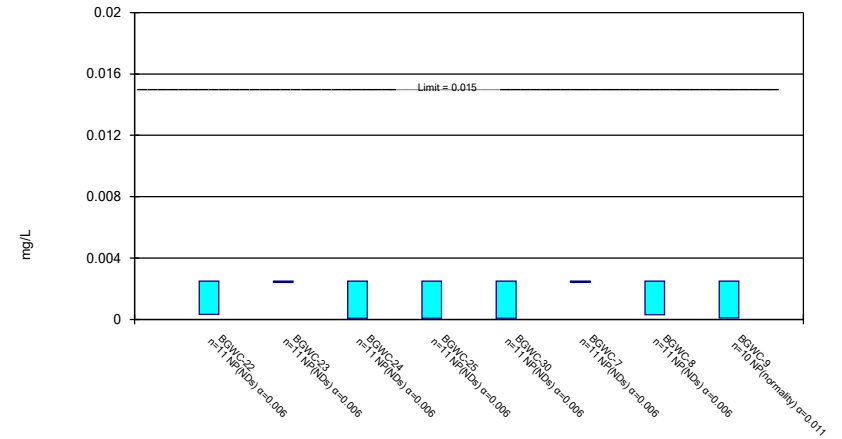
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.09 (J)	<0.3		<0.3	0.15 (J)				
6/8/2016						0.1 (J)	<0.3	0.09 (J)	<0.3
6/10/2016			0.23						
8/11/2016				0.12 (J)	0.3 (J)				
8/12/2016		0.08 (J)				0.39	0.2 (J)	0.04 (J)	
8/16/2016	0.09 (J)								
8/17/2016			0.12 (J)						
8/18/2016									0.09 (J)
10/6/2016		0.06 (J)							
10/7/2016	0.17 (J)		0.13 (J)	0.08 (J)	0.14 (J)	0.16 (J)	0.07 (J)		
10/10/2016								0.06 (J)	0.04 (J)
12/5/2016		0.12 (J)							
12/6/2016	0.16 (J)			0.24 (J)	0.19 (J)	0.32			
12/7/2016							0.09 (J)	0.07 (J)	
12/8/2016			0.31						0.08 (J)
2/15/2017		0.33							
2/16/2017	0.38			0.31	0.51	0.38	0.6		
2/17/2017								0.06 (J)	0.08 (J)
2/21/2017			0.35						
4/18/2017	0.12 (J)	0.006 (J)		0.02 (J)					
4/19/2017					0.18 (J)	0.08 (J)	0.09 (J)	0.005 (J)	0.04 (J)
4/21/2017			0.04 (J)						
5/30/2017				0.51	0.15 (J)				
6/1/2017						0.09 (J)	0.05 (J)	0.65	0.03 (J)
6/2/2017	0.03 (J)	0.04 (J)							
6/6/2017			0.36						
7/12/2017	0.15 (J)								
7/13/2017		0.17 (J)							
7/14/2017				0.14 (J)	0.16 (J)	0.06 (J)	0.08 (J)		
7/18/2017								0.36	0.08 (J)
7/19/2017			0.18 (J)						
10/10/2017		0.08 (J)							
10/11/2017	0.07 (J)			0.29 (J)	0.64	0.14 (J)	0.11 (J)	<0.3	
10/12/2017			0.08 (J)						0.12 (J)
3/27/2018	<0.3			<0.3	0.33	<0.3	<0.3		
3/28/2018		<0.3						<0.3	<0.3
3/29/2018			<0.3						
6/12/2018				0.061 (J)					
6/13/2018								0.038 (J)	
6/14/2018	0.046 (J)	<0.3			0.11 (J)	0.095 (J)			<0.3
6/15/2018			0.41				0.07 (J)		
10/17/2018		<0.3			<0.3				
10/18/2018	<0.3			<0.3		0.054 (J)			
10/19/2018			<0.3				0.17 (J)		<0.3
10/22/2018								<0.3	
2/25/2019				0.13 (J)					
2/27/2019					0.26 (J)	<0.3		0.13 (J)	
2/28/2019	0.14 (J)	0.18 (J)							
3/1/2019							0.14 (J)		
3/6/2019			0.88						
4/1/2019		0.065 (J)							
4/2/2019	0.044 (J)			0.23 (J)	0.14 (J)	0.044 (J)			

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
4/3/2019							0.051 (J)	0.072 (J)	0.032 (J)
4/4/2019			0.44						
Mean	0.1279	0.1236	0.2736	0.1844	0.2436	0.1581	0.1444	0.1446	0.09169
Std. Dev.	0.08664	0.07982	0.2159	0.1252	0.1565	0.1181	0.1391	0.1692	0.04789
Upper Lim.	0.1765	0.1616	0.4265	0.2735	0.321	0.2229	0.1793	0.184	0.07791
Lower Lim.	0.0685	0.04315	0.1206	0.09333	0.143	0.07721	0.07155	0.02696	0.03087

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.12 (J)
6/7/2016							<0.3	
6/8/2016	0.43			0.14 (J)		0.19 (J)		
6/9/2016		0.12 (J)	<0.3					
8/10/2016							0.07 (J)	
8/11/2016						0.15 (J)		0.27 (J)
8/15/2016				0.08 (J)				
8/18/2016	0.3 (J)	0.08 (J)	0.24 (J)					
10/4/2016							0.07 (J)	
10/5/2016								0.12 (J)
10/6/2016						0.17 (J)		
10/10/2016	0.32	0.09 (J)	0.3	0.1 (J)				
12/2/2016							0.09 (J)	
12/5/2016								0.26 (J)
12/6/2016						0.22 (J)		
12/7/2016		0.08 (J)	0.05 (J)					
12/8/2016	0.26 (J)			0.06 (J)				
1/23/2017					0.06 (J)			
2/7/2017					0.09 (J)			
2/14/2017							0.02 (J)	
2/15/2017						0.18 (J)		0.46
2/17/2017	0.39							
2/20/2017		0.09 (J)	0.65	0.16 (J)				
3/27/2017					0.09 (J)			
4/14/2017							0.02 (J)	
4/17/2017					0.36			0.14 (J)
4/18/2017						0.11 (J)		
4/19/2017		0.03 (J)	0.21 (J)					
4/20/2017	0.34			0.02 (J)				
5/22/2017					0.05 (J)			
5/26/2017							0.02 (J)	0.13 (J)
6/1/2017				0.04 (J)				
6/2/2017						0.07 (J)		
6/5/2017	0.29 (J)	<0.3	0.05 (J)		0.32			
7/10/2017							0.03 (J)	
7/11/2017					0.13 (J)			0.2 (J)
7/14/2017						0.23 (J)		
7/17/2017		0.09 (J)	2.5	0.07 (J)				
7/19/2017	0.33							
8/23/2017					0.17 (J)			
10/10/2017					0.35		<0.3	0.61
10/11/2017		0.09 (J)	1.8	0.11 (J)		0.1 (J)		
10/12/2017	0.31							
3/26/2018					0.75		<0.3	
3/27/2018						<0.3		0.36
3/28/2018				<0.3				
3/29/2018	0.58	<0.3	2					
6/12/2018							0.061 (J)	0.13 (J)
6/13/2018		0.71	3.1			0.25 (J)		
6/14/2018	0.15 (J)			<0.3				
6/15/2018					0.51			
10/16/2018							<0.3	

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
10/17/2018								0.13 (J)
10/18/2018						0.047 (J)		
10/22/2018	0.78	0.81	3.1	<0.3	0.44			
2/25/2019							<0.3	
2/28/2019						0.23 (J)		
3/1/2019	0.34	0.38	1	0.12 (J)	0.24 (J)			
4/1/2019							<0.3	0.33
4/2/2019					0.68	0.22 (J)		
4/3/2019	0.23 (J)	0.1 (J)	3					
4/4/2019				<0.3				
Mean	0.3607	0.2121	1.296	0.1071	0.3029	0.1655	0.0915	0.2508
Std. Dev.	0.1559	0.2465	1.235	0.04631	0.2278	0.064	0.05651	0.1539
Upper Lim.	0.4711	0.2581	2.171	0.1197	0.4642	0.2108	0.15	0.3652
Lower Lim.	0.2503	0.07169	0.4218	0.06028	0.1415	0.1202	0.02	0.1363

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.005	<0.005		<0.005	<0.005				
6/8/2016						<0.005	<0.005	<0.005	<0.005
6/10/2016			<0.005						
8/11/2016				<0.005	<0.005				
8/12/2016		0.0001 (J)				0.0001 (J)	<0.005	<0.005	
8/16/2016	<0.005								
8/17/2016			<0.005						
8/18/2016									<0.005
10/6/2016		0.0002 (J)							
10/7/2016	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		0.0003 (J)							
12/6/2016	<0.005			<0.005	<0.005	0.0001 (J)			
12/7/2016							<0.005	<0.005	
12/8/2016			<0.005						<0.005
2/15/2017		<0.005							
2/16/2017	<0.005			<0.005	<0.005	0.0002 (J)	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	<0.005	<0.005		<0.005					
4/19/2017					<0.005	0.0001 (J)	0.0006 (J)	<0.005	<0.005
4/21/2017			<0.005						
5/30/2017				0.0001 (J)	<0.005				
6/1/2017						9E-05 (J)	<0.005	0.0001 (J)	<0.005
6/2/2017	<0.005	0.0001 (J)							
6/6/2017			<0.005						
6/15/2017			9E-05 (J)						
7/12/2017	<0.005								
7/13/2017		0.0001 (J)							
7/14/2017				0.0002 (J)	<0.005	0.0001 (J)	<0.005		
7/18/2017								<0.005	<0.005
7/19/2017			<0.005						
3/27/2018	<0.005			<0.005	<0.005	<0.005	<0.005		
3/28/2018		<0.005						<0.005	<0.005
3/29/2018			<0.005						
2/25/2019				<0.005					
2/27/2019					<0.005	<0.005		<0.005	
2/28/2019	<0.005	<0.005							
3/1/2019							<0.005		
3/6/2019			<0.005						
4/1/2019		<0.005							
4/2/2019	<0.005			<0.005	<0.005	8.1E-05 (J)			
4/3/2019							<0.005	<0.005	6.8E-05 (J)
4/4/2019			<0.005						
Mean	0.0025	0.001436	0.002299	0.002073	0.0025	0.0009792	0.002327	0.002282	0.002257
Std. Dev.	0	0.001223	0.0006957	0.0009509	0	0.001206	0.0005729	0.0007236	0.0007691
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0001	9E-05	0.0001	0.0025	8.1E-05	0.0006	0.0001	6.8E-05

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.005
6/7/2016							<0.005	
6/8/2016	<0.005			<0.005		<0.005		
6/9/2016		<0.005	0.00059 (J)					
8/10/2016							<0.005	
8/11/2016						<0.005		<0.005
8/15/2016				0.0005 (J)				
8/18/2016	<0.005	<0.005	<0.005					
10/4/2016							<0.005	
10/5/2016								0.0005 (J)
10/6/2016						<0.005		
10/10/2016	<0.005	<0.005	<0.005	<0.005				
12/2/2016							<0.005	
12/5/2016								0.0002 (J)
12/6/2016						<0.005		
12/7/2016		<0.005	<0.005					
12/8/2016	<0.005			0.0006 (J)				
1/23/2017					0.0003 (J)			
2/7/2017					0.0002 (J)			
2/14/2017							<0.005	
2/15/2017						<0.005		<0.005
2/17/2017	<0.005							
2/20/2017		<0.005	<0.005	0.0004 (J)				
3/27/2017					8E-05 (J)			
4/14/2017							<0.005	
4/17/2017					<0.005			0.0001 (J)
4/18/2017						<0.005		
4/19/2017		<0.005	<0.005					
4/20/2017	<0.005			0.0002 (J)				
5/22/2017					<0.005			
5/26/2017							0.0003 (J)	0.0001 (J)
6/1/2017				7E-05 (J)				
6/2/2017						<0.005		
6/5/2017	<0.005	<0.005	7E-05 (J)		<0.005			
7/10/2017							<0.005	
7/11/2017					8E-05 (J)			<0.005
7/14/2017						<0.005		
7/17/2017		<0.005	<0.005	<0.005				
7/19/2017	<0.005							
8/23/2017					<0.005			
3/26/2018					<0.005		<0.005	
3/27/2018						<0.005		<0.005
3/28/2018				<0.005				
3/29/2018	<0.005	<0.005	<0.005					
2/25/2019							<0.005	
2/28/2019						<0.005		
3/1/2019	0.00033 (J)	<0.005	<0.005	<0.005	<0.005			
4/1/2019							<0.005	9.2E-05 (J)
4/2/2019					<0.005	<0.005		
4/3/2019	<0.005	<0.005	<0.005					
4/4/2019				<0.005				
Mean	0.002303	0.0025	0.002105	0.001525	0.001651	0.0025	0.0023	0.001349

Confidence Interval

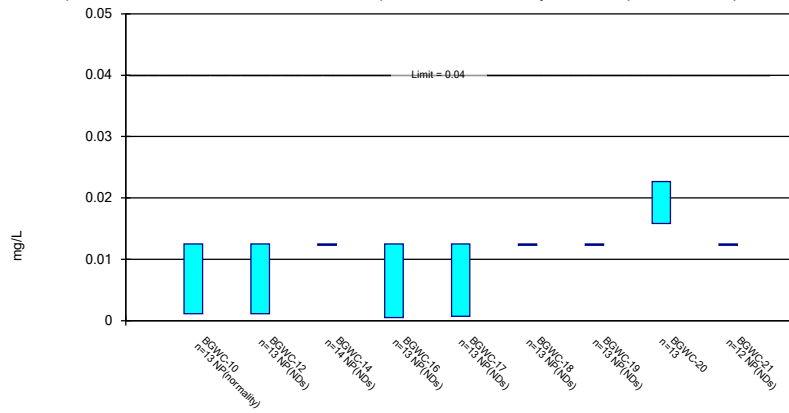
Constituent: Lead (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
Std. Dev.	0.0006543	0	0.0008855	0.001129	0.00118	0	0.0006633	0.001219
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.00033	0.0025	7E-05	7E-05	8E-05	0.0025	0.0003	9.2E-05

Parametric and Non-Parametric (NP) Confidence Interval

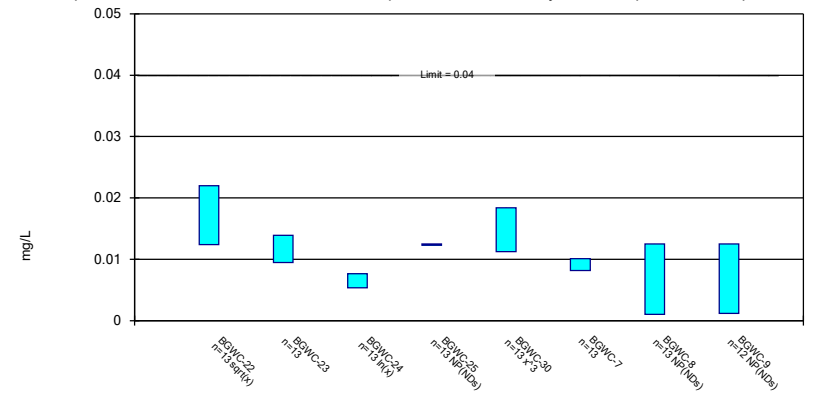
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lithium Analysis Run 11/6/2019 11:56 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

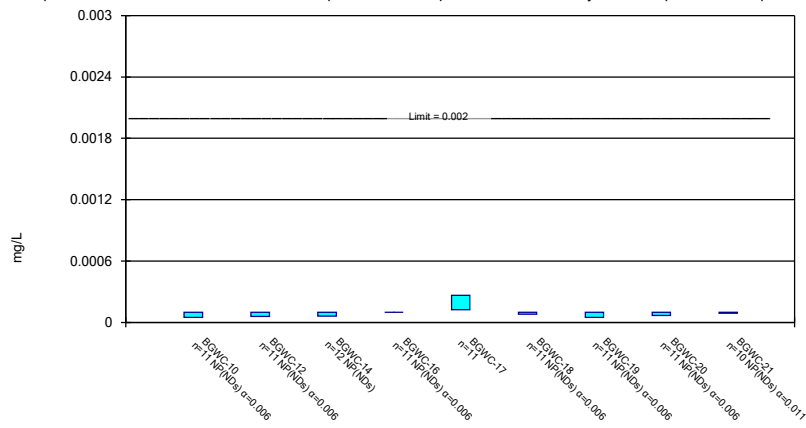
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lithium Analysis Run 11/6/2019 11:56 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

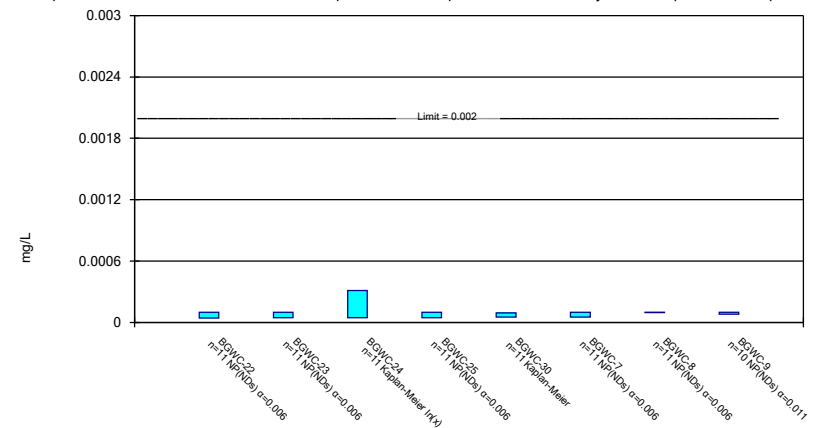
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Mercury Analysis Run 11/6/2019 11:56 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Mercury Analysis Run 11/6/2019 11:56 AM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0065	<0.025		<0.025	<0.025				
6/8/2016						<0.025	<0.025	0.016	<0.025
6/10/2016			<0.025						
8/11/2016				<0.025	<0.025				
8/12/2016		<0.025				<0.025	<0.025	0.0202 (J)	
8/16/2016	<0.025								
8/17/2016			<0.025						
8/18/2016									<0.025
10/6/2016		<0.025							
10/7/2016	<0.025		<0.025	<0.025	<0.025	<0.025	<0.025		
10/10/2016								0.0194 (J)	<0.025
12/5/2016		<0.025							
12/6/2016	<0.025			<0.025	<0.025	<0.025			
12/7/2016							<0.025	0.0265 (J)	
12/8/2016			<0.025						<0.025
2/15/2017		<0.025							
2/16/2017	<0.025			<0.025	<0.025	<0.025	<0.025		
2/17/2017								0.0253 (J)	<0.025
2/21/2017			<0.025						
4/18/2017	0.0011 (J)	<0.025		<0.025					
4/19/2017					<0.025	<0.025	<0.025	0.0233 (J)	<0.025
4/21/2017			<0.025						
5/30/2017				<0.025	<0.025				
6/1/2017						<0.025	<0.025	0.023 (J)	<0.025
6/2/2017	0.0011 (J)	<0.025							
6/6/2017			<0.025						
6/15/2017			<0.025						
7/12/2017	<0.025								
7/13/2017		<0.025							
7/14/2017				<0.025	<0.025	<0.025	<0.025		
7/18/2017								0.0207 (J)	<0.025
7/19/2017			<0.025						
3/27/2018	0.0025 (J)			<0.025	<0.025	<0.025	<0.025		
3/28/2018		<0.025						0.013 (J)	<0.025
3/29/2018			<0.025						
6/12/2018				<0.025					
6/13/2018								0.02 (J)	
6/14/2018	0.0011 (J)	<0.025			<0.025	<0.025			<0.025
6/15/2018			<0.025				<0.025		
10/17/2018		<0.025			<0.025				
10/18/2018	0.0016 (J)			<0.025		<0.025			
10/19/2018			<0.025				<0.025		<0.025
10/22/2018								0.016 (J)	
2/25/2019				<0.025					
2/27/2019					<0.025	<0.025		0.015 (J)	
2/28/2019	0.0017 (J)	0.0011 (J)							
3/1/2019							<0.025		
3/6/2019			<0.025						
4/1/2019		0.00078 (J)							
4/2/2019	0.0012 (J)			0.00049 (J)	0.00069 (J)	<0.025			
4/3/2019							<0.025	0.012 (J)	<0.025
4/4/2019			<0.025						

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.0061	0.01072	0.0125	0.01158	0.01159	0.0125	0.0125	0.01926	0.0125
Std. Dev.	0.005451	0.004342	0	0.003331	0.003276	0	0	0.004601	0
Upper Lim.	0.0125	0.0125	0.0125	0.0125	0.0125	0.0125	0.0125	0.02268	0.0125
Lower Lim.	0.0011	0.0011	0.0125	0.00049	0.00069	0.0125	0.0125	0.01584	0.0125

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.025
6/7/2016							<0.025	
6/8/2016	0.012			<0.025		0.0079		
6/9/2016		0.0074	0.0057					
8/10/2016							<0.025	
8/11/2016						0.0093 (J)		<0.025
8/15/2016				<0.025				
8/18/2016	0.0118 (J)	0.0078 (J)	0.0061 (J)					
10/4/2016							<0.025	
10/5/2016								<0.025
10/6/2016						0.0102 (J)		
10/10/2016	0.0137 (J)	0.0093 (J)	0.006 (J)	<0.025				
12/2/2016							<0.025	
12/5/2016								<0.025
12/6/2016						0.0094 (J)		
12/7/2016		0.0117 (J)	0.0066 (J)					
12/8/2016	0.0154 (J)			<0.025				
1/23/2017					0.0171 (J)			
2/7/2017					0.0196 (J)			
2/14/2017							<0.025	
2/15/2017						<0.025		<0.025
2/17/2017	0.0125 (J)							
2/20/2017		0.011 (J)	0.0053 (J)	<0.025				
3/27/2017					0.0192 (J)			
4/14/2017							<0.025	
4/17/2017					0.0169 (J)			0.0013 (J)
4/18/2017						0.0086 (J)		
4/19/2017		0.0105 (J)	0.0055 (J)					
4/20/2017	0.012 (J)			<0.025				
5/22/2017					0.0167 (J)			
5/26/2017							<0.025	0.0013 (J)
6/1/2017				<0.025				
6/2/2017						0.0102 (J)		
6/5/2017	0.0114 (J)	0.0108 (J)	0.0068 (J)		0.0177 (J)			
7/10/2017							<0.025	
7/11/2017					0.0203 (J)			<0.025
7/14/2017						0.0092 (J)		
7/17/2017		0.0095 (J)	<0.025	<0.025				
7/19/2017	0.0126 (J)							
8/23/2017					0.0182 (J)			
3/26/2018					0.0063 (J)		<0.025	
3/27/2018						0.0087 (J)		0.0014 (J)
3/28/2018				<0.025				
3/29/2018	0.021 (J)	0.014 (J)	0.0053 (J)					
6/12/2018							<0.025	0.0012 (J)
6/13/2018		0.014 (J)	0.0067 (J)			0.0084 (J)		
6/14/2018	0.024 (J)			<0.025				
6/15/2018					0.0049 (J)			
10/16/2018							0.001 (J)	
10/17/2018								<0.025
10/18/2018						0.0083 (J)		
10/22/2018	0.034 (J)	0.016 (J)	0.0075 (J)	<0.025	0.005 (J)			

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.025	
2/28/2019						0.0086 (J)		
3/1/2019	0.022 (J)	0.017 (J)	0.0068 (J)	<0.025	0.0044 (J)			
4/1/2019							<0.025	0.0012 (J)
4/2/2019					0.0041 (J)	0.0073 (J)		
4/3/2019	0.024 (J)	0.013 (J)	0.0048 (J)					
4/4/2019				<0.025				
Mean	0.01742	0.01169	0.006585	0.0125	0.01311	0.009123	0.01162	0.007825
Std. Dev.	0.006995	0.002971	0.001936	0	0.006817	0.00131	0.00319	0.005778
Upper Lim.	0.02199	0.0139	0.007629	0.0125	0.01838	0.0101	0.0125	0.0125
Lower Lim.	0.01238	0.009483	0.005354	0.0125	0.01127	0.008149	0.001	0.0012

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/6/2019 11:58 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0001 (J)	0.0001 (J)		9.8E-05 (J)	0.00017 (J)				
6/8/2016						<0.0002	<0.0002	<0.0002	<0.0002
6/10/2016			<0.0002						
8/11/2016				<0.0002	0.00019 (J)				
8/12/2016		<0.0002				<0.0002	<0.0002	<0.0002	
8/16/2016	<0.0002								
8/17/2016			<0.0002						
8/18/2016									<0.0002
10/6/2016		<0.0002							
10/7/2016	<0.0002		<0.0002	<0.0002	0.00014 (J)	<0.0002	<0.0002		
10/10/2016								<0.0002	<0.0002
12/5/2016		<0.0002							
12/6/2016	<0.0002			<0.0002	0.00016 (J)	<0.0002			
12/7/2016							8E-05 (J)	<0.0002	
12/8/2016			<0.0002						<0.0002
2/15/2017		<0.0002							
2/16/2017	<0.0002			<0.0002	0.00017 (J)	<0.0002	<0.0002		
2/17/2017								<0.0002	<0.0002
2/21/2017			<0.0002						
4/18/2017	<0.0002	<0.0002		<0.0002					
4/19/2017					0.00014 (J)	<0.0002	<0.0002	<0.0002	<0.0002
4/21/2017			<0.0002						
5/30/2017				<0.0002	0.00023 (J)				
6/1/2017						<0.0002	<0.0002	<0.0002	<0.0002
6/2/2017	<0.0002	<0.0002							
6/6/2017			<0.0002						
6/15/2017			6.2E-05 (J)						
7/12/2017	<0.0002								
7/13/2017		<0.0002							
7/14/2017				<0.0002	0.00016 (J)	<0.0002	<0.0002		
7/18/2017								<0.0002	<0.0002
7/19/2017			<0.0002						
3/27/2018	<0.0002			<0.0002	<0.0002	<0.0002	<0.0002		
3/28/2018		<0.0002						<0.0002	<0.0002
3/29/2018			<0.0002						
2/25/2019				<0.0002					
2/27/2019					0.00029 (J)	7.9E-05 (J)		6.6E-05 (J)	
2/28/2019	4.8E-05 (J)	5.8E-05 (J)							
3/1/2019							5E-05 (J)		
3/6/2019			<0.0002						
4/1/2019		<0.0002							
4/2/2019	<0.0002			<0.0002	0.0004	<0.0002			
4/3/2019							<0.0002	<0.0002	<0.0002
4/4/2019			<0.0002						
Mean	9.527E-05	9.618E-05	9.683E-05	9.982E-05	0.0001955	9.809E-05	9.364E-05	9.691E-05	0.0001
Std. Dev.	1.568E-05	1.266E-05	1.097E-05	6E-07	8.43E-05	6.332E-06	1.567E-05	1.025E-05	0
Upper Lim.	0.0001	0.0001	0.0001	0.0001	0.0002657	0.0001	0.0001	0.0001	0.0001
Lower Lim.	4.8E-05	5.8E-05	6.2E-05	9.8E-05	0.0001252	7.9E-05	5E-05	6.6E-05	0.0001

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								8E-05 (J)
6/7/2016							9.7E-05 (J)	
6/8/2016	9.2E-05 (J)			<0.0002		<0.0002		
6/9/2016		<0.0002	<0.0002					
8/10/2016							<0.0002	
8/11/2016						<0.0002		<0.0002
8/15/2016				<0.0002				
8/18/2016	<0.0002	<0.0002	<0.0002					
10/4/2016							<0.0002	
10/5/2016								<0.0002
10/6/2016						<0.0002		
10/10/2016	<0.0002	<0.0002	4E-05 (J)	<0.0002				
12/2/2016							<0.0002	
12/5/2016								<0.0002
12/6/2016						<0.0002		
12/7/2016		5E-05 (J)	7E-05 (J)					
12/8/2016	<0.0002			<0.0002				
1/23/2017					8E-05 (J)			
2/7/2017					0.00011 (J)			
2/14/2017							<0.0002	
2/15/2017						<0.0002		<0.0002
2/17/2017	<0.0002							
2/20/2017		<0.0002	5E-05 (J)	<0.0002				
3/27/2017					8E-05 (J)			
4/14/2017							<0.0002	
4/17/2017					4E-05 (J)			<0.0002
4/18/2017						<0.0002		
4/19/2017		<0.0002	0.00016 (J)					
4/20/2017	<0.0002			<0.0002				
5/22/2017					<0.0002			
5/26/2017							<0.0002	<0.0002
6/1/2017				<0.0002				
6/2/2017						<0.0002		
6/5/2017	<0.0002	<0.0002	0.00013 (J)		6E-05 (J)			
7/10/2017							<0.0002	
7/11/2017					9.1E-05 (J)			<0.0002
7/14/2017						<0.0002		
7/17/2017		<0.0002	0.00013 (J)	<0.0002				
7/19/2017	<0.0002							
8/23/2017					5E-05 (J)			
3/26/2018					<0.0002		<0.0002	
3/27/2018						<0.0002		<0.0002
3/28/2018				<0.0002				
3/29/2018	<0.0002	<0.0002	<0.0002					
2/25/2019							<0.0002	
2/28/2019						5.3E-05 (J)		
3/1/2019	4.2E-05 (J)	4.4E-05 (J)	0.00093	4.7E-05 (J)	0.0001 (J)			
4/1/2019							<0.0002	<0.0002
4/2/2019					<0.0002	<0.0002		
4/3/2019	<0.0002	<0.0002	0.0013					
4/4/2019				<0.0002				
Mean	9.4E-05	9.036E-05	0.0002827	9.518E-05	8.282E-05	9.573E-05	9.973E-05	9.8E-05

Confidence Interval

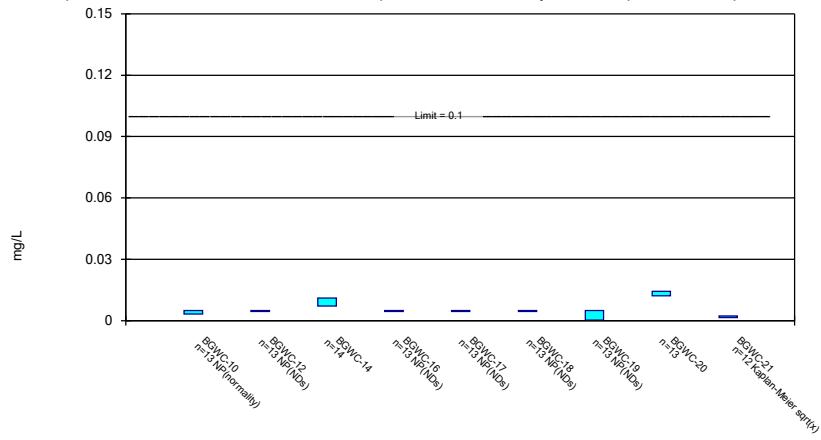
Constituent: Mercury (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
Std. Dev.	1.741E-05	2.148E-05	0.0004212	1.598E-05	2.331E-05	1.417E-05	9E-07	6.325E-06
Upper Lim.	0.0001	0.0001	0.0003115	0.0001	9.315E-05	0.0001	0.0001	0.0001
Lower Lim.	4.2E-05	4.4E-05	4.586E-05	4.7E-05	5.21E-05	5.3E-05	9.7E-05	8E-05

Parametric and Non-Parametric (NP) Confidence Interval

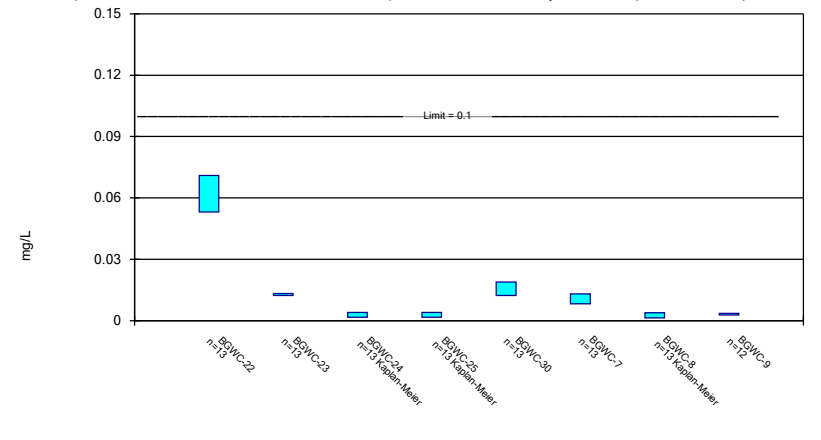
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Molybdenum Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

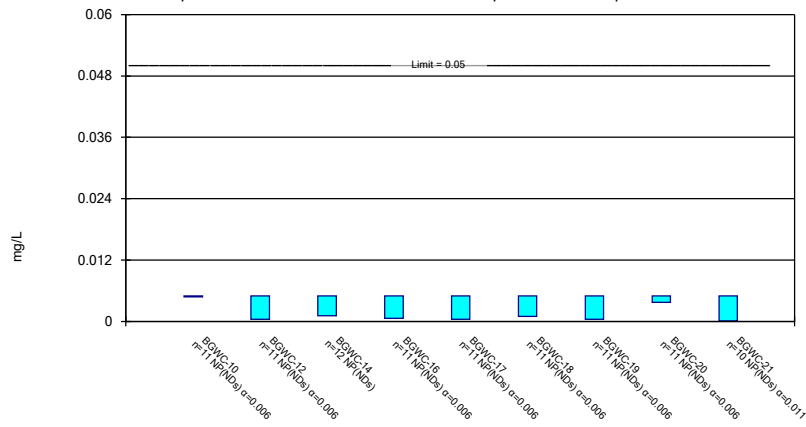
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Molybdenum Analysis Run 11/6/2019 11:56 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

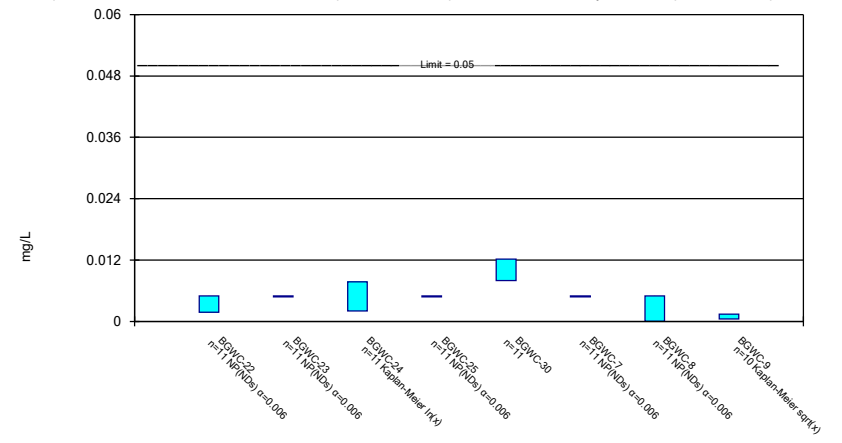
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Selenium Analysis Run 11/6/2019 11:57 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Selenium Analysis Run 11/6/2019 11:57 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0067 (J)	<0.01		<0.01	<0.01				
6/8/2016						<0.01	<0.01	0.011 (J)	0.0027 (J)
6/10/2016			0.014 (J)						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	0.0127	
8/16/2016	0.0032 (J)								
8/17/2016			0.0085 (J)						
8/18/2016									0.0023 (J)
10/6/2016		<0.01							
10/7/2016	0.0032 (J)		0.0072 (J)	<0.01	<0.01	<0.01	<0.01		
10/10/2016								0.0136	0.0025 (J)
12/5/2016		<0.01							
12/6/2016	0.0049 (J)			<0.01	<0.01	<0.01			
12/7/2016							<0.01	0.0139	
12/8/2016			0.0082 (J)						<0.01
2/15/2017		<0.01							
2/16/2017	0.0039 (J)			<0.01	<0.01	<0.01	<0.01		
2/17/2017								0.0148	<0.01
2/21/2017			0.0076 (J)						
4/18/2017	0.0032 (J)	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	0.012	0.0014 (J)
4/21/2017			0.0052 (J)						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	0.0125	0.0012 (J)
6/2/2017	0.0035 (J)	<0.01							
6/6/2017			0.0079 (J)						
6/15/2017			0.0052 (J)						
7/12/2017	0.0037 (J)								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								0.0155	0.0013 (J)
7/19/2017			0.0073 (J)						
3/27/2018	0.0032 (J)			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						0.012	<0.01
3/29/2018			0.012						
6/12/2018				<0.01					
6/13/2018								0.016	
6/14/2018	0.0033 (J)	<0.01			<0.01	<0.01	<0.01		<0.01
6/15/2018			0.012				<0.01		
10/17/2018		<0.01			<0.01				
10/18/2018	0.0034 (J)			<0.01		<0.01			
10/19/2018			0.0094 (J)				<0.01		<0.01
10/22/2018								0.013	
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		0.013	
2/28/2019	0.0035 (J)	<0.01							
3/1/2019							<0.01		
3/6/2019			0.013						
4/1/2019		<0.01							
4/2/2019	0.0032 (J)			<0.01	<0.01	<0.01			
4/3/2019							0.00023 (J)	0.012	0.0019 (J)
4/4/2019			0.0088 (J)						

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.003762	0.005	0.009021	0.005	0.005	0.005	0.004633	0.01323	0.003192
Std. Dev.	0.001	0	0.002749	0	0	0	0.001323	0.001481	0.001659
Upper Lim.	0.0049	0.005	0.01097	0.005	0.005	0.005	0.005	0.01433	0.002329
Lower Lim.	0.0032	0.005	0.007074	0.005	0.005	0.005	0.00023	0.01213	0.001438

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.0028 (J)
6/7/2016							0.00063 (J)	
6/8/2016	0.07			0.0064 (J)		0.0088 (J)		
6/9/2016		0.013 (J)	0.0024 (J)					
8/10/2016							0.0039 (J)	
8/11/2016						0.01		0.003 (J)
8/15/2016				0.0039 (J)				
8/18/2016	0.0758	0.0136	0.0034 (J)					
10/4/2016							0.0052 (J)	
10/5/2016								0.0032 (J)
10/6/2016						0.0117		
10/10/2016	0.0712	0.0134	0.0047 (J)	0.0029 (J)				
12/2/2016							<0.01	
12/5/2016								0.0033 (J)
12/6/2016						0.0102		
12/7/2016		0.0128	0.0066 (J)					
12/8/2016	0.0682			<0.01				
1/23/2017					0.0125			
2/7/2017					0.0163			
2/14/2017							0.0044 (J)	
2/15/2017						0.0018 (J)		0.0027 (J)
2/17/2017	0.066							
2/20/2017		0.0122	0.0026 (J)	0.0024 (J)				
3/27/2017					0.0157			
4/14/2017							0.0013 (J)	
4/17/2017					0.0178			0.0025 (J)
4/18/2017						0.0103		
4/19/2017		0.0124	0.002 (J)					
4/20/2017	0.0662			0.0019 (J)				
5/22/2017					0.0208			
5/26/2017							0.0024 (J)	0.0029 (J)
6/1/2017				0.0026 (J)				
6/2/2017						0.0129		
6/5/2017	0.071	0.0115	0.0015 (J)		0.0191			
7/10/2017							0.0013 (J)	
7/11/2017					0.0218			0.0029 (J)
7/14/2017						0.0129		
7/17/2017		0.0131	0.0013 (J)	0.0024 (J)				
7/19/2017	0.0703							
8/23/2017					0.0218			
3/26/2018					0.014		<0.01	
3/27/2018						0.01		0.0031 (J)
3/28/2018				<0.01				
3/29/2018	0.056	0.013	0.0027 (J)					
6/12/2018							0.0026 (J)	0.0043 (J)
6/13/2018		0.013	<0.01			0.013		
6/14/2018	0.059			<0.01				
6/15/2018					0.012			
10/16/2018							0.0041 (J)	
10/17/2018								0.0038 (J)
10/18/2018						0.01 (J)		
10/22/2018	0.055	0.013	<0.01	<0.01	0.01			

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.01	
2/28/2019						0.016		
3/1/2019	0.039	0.013	<0.01	<0.01	0.011			
4/1/2019							0.00054 (J)	0.0027 (J)
4/2/2019					0.01	0.011		
4/3/2019	0.039	0.012	0.00095 (J)					
4/4/2019				0.00096 (J)				
Mean	0.06205	0.01277	0.003319	0.003728	0.0156	0.01066	0.003182	0.0031
Std. Dev.	0.01195	0.0005865	0.001771	0.001627	0.004383	0.003277	0.001788	0.0005081
Upper Lim.	0.07094	0.01321	0.004028	0.004007	0.01886	0.0131	0.003806	0.003499
Lower Lim.	0.05317	0.01233	0.001602	0.001616	0.01234	0.008225	0.001325	0.002701

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		<0.01	0.0004 (J)				
6/8/2016						<0.01	0.00043 (J)	<0.01	<0.01
6/10/2016			<0.01						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		
10/10/2016								<0.01	0.001 (J)
12/5/2016		<0.01							
12/6/2016	<0.01			<0.01	<0.01	<0.01			
12/7/2016							<0.01	0.0037 (J)	
12/8/2016			<0.01						<0.01
2/15/2017		<0.01							
2/16/2017	<0.01			0.0012 (J)	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			0.0011 (J)						
4/18/2017	<0.01	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	<0.01							
6/6/2017			<0.01						
6/15/2017			<0.01						
7/12/2017	<0.01								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								<0.01	<0.01
7/19/2017			<0.01						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		<0.01	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		0.0004 (J)							
4/2/2019	<0.01			0.0006 (J)	0.00077 (J)	0.001 (J)			
4/3/2019							0.00058 (J)	<0.01	0.00012 (J)
4/4/2019			0.00014 (J)						
Mean	0.005	0.004582	0.00427	0.004255	0.004197	0.004636	0.004183	0.004882	0.004112
Std. Dev.	0	0.001387	0.001717	0.001664	0.001788	0.001206	0.001819	0.000392	0.001884
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.005	0.0004	0.0011	0.0006	0.0004	0.001	0.00043	0.0037	0.00012

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.00031 (J)
6/7/2016							4.8E-05 (J)	
6/8/2016	<0.01			<0.01		<0.01		
6/9/2016		<0.01	0.00099 (J)					
8/10/2016							<0.01	
8/11/2016						<0.01		0.001 (J)
8/15/2016				<0.01				
8/18/2016	<0.01	<0.01	0.0023 (J)					
10/4/2016							<0.01	
10/5/2016								0.0017 (J)
10/6/2016						<0.01		
10/10/2016	<0.01	<0.01	0.004 (J)	<0.01				
12/2/2016							<0.01	
12/5/2016								<0.01
12/6/2016						<0.01		
12/7/2016		0.0176	0.0302					
12/8/2016	0.012			<0.01				
1/23/2017					0.015			
2/7/2017					0.0114			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	<0.01							
2/20/2017		<0.01	0.0044 (J)	<0.01				
3/27/2017					0.0092 (J)			
4/14/2017							<0.01	
4/17/2017					0.0082 (J)			<0.01
4/18/2017						<0.01		
4/19/2017		<0.01	0.0046 (J)					
4/20/2017	<0.01			<0.01				
5/22/2017					0.0094 (J)			
5/26/2017							<0.01	0.0014 (J)
6/1/2017				<0.01				
6/2/2017						<0.01		
6/5/2017	0.0018 (J)	<0.01	0.0033 (J)		0.0118			
7/10/2017							<0.01	
7/11/2017					0.012			<0.01
7/14/2017						<0.01		
7/17/2017		<0.01	0.0052 (J)	<0.01				
7/19/2017	<0.01							
8/23/2017					0.0097 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	<0.01	<0.01	<0.01					
2/25/2019							<0.01	
2/28/2019						<0.01		
3/1/2019	<0.01	<0.01	<0.01	<0.01	0.01 (J)			
4/1/2019							0.00015 (J)	0.0004 (J)
4/2/2019					0.0092 (J)	<0.01		
4/3/2019	<0.01	<0.01	0.0038 (J)					
4/4/2019				<0.01				
Mean	0.005345	0.006145	0.006254	0.005	0.01008	0.005	0.004109	0.002981

Confidence Interval

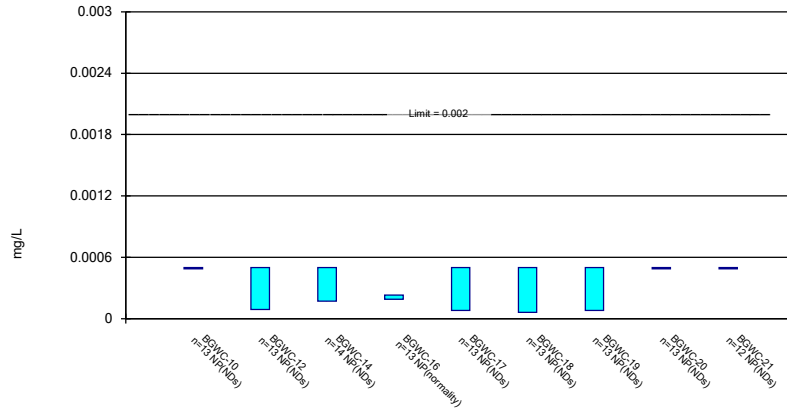
Constituent: Selenium (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
Std. Dev.	0.002407	0.003799	0.008044	0	0.002532	0	0.001983	0.002166
Upper Lim.	0.005	0.005	0.007735	0.005	0.01219	0.005	0.005	0.001437
Lower Lim.	0.0018	0.005	0.002032	0.005	0.007972	0.005	4.8E-05	0.0004511

Non-Parametric Confidence Interval

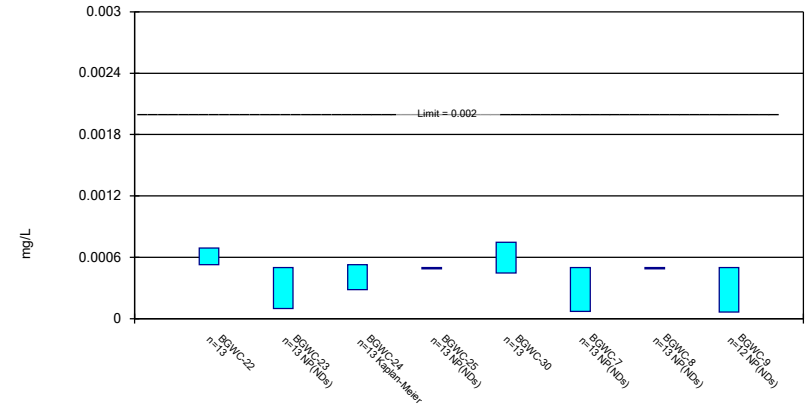
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 11/6/2019 11:57 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

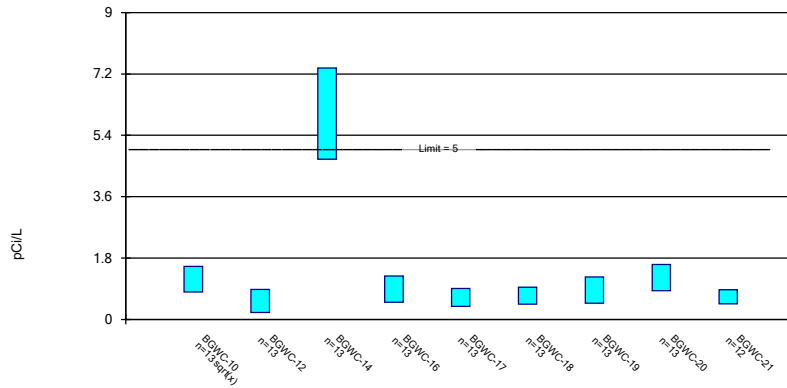
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Thallium Analysis Run 11/6/2019 11:57 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

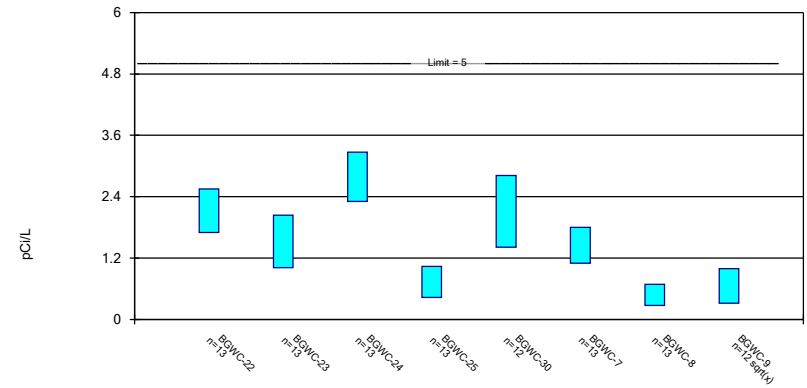
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Total Radium Analysis Run 11/6/2019 11:57 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Total Radium Analysis Run 11/6/2019 11:57 AM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.001	<0.001		0.0002 (J)	8.5E-05 (J)				
6/8/2016						<0.001	8.5E-05 (J)	<0.001	<0.001
6/10/2016			<0.001						
8/11/2016				0.0002 (J)	8E-05 (J)				
8/12/2016		9E-05 (J)				6E-05 (J)	8E-05 (J)	<0.001	
8/16/2016	<0.001								
8/17/2016			<0.001						
8/18/2016									<0.001
10/6/2016		<0.001							
10/7/2016	<0.001		<0.001	0.0002 (J)	<0.001	<0.001	<0.001		
10/10/2016								<0.001	<0.001
12/5/2016		<0.001							
12/6/2016	<0.001			0.0003 (J)	<0.001	<0.001			
12/7/2016							<0.001	<0.001	
12/8/2016			<0.001						<0.001
2/15/2017		<0.001							
2/16/2017	<0.001			0.0003 (J)	<0.001	<0.001	<0.001		
2/17/2017								<0.001	<0.001
2/21/2017			<0.001						
4/18/2017	<0.001	9E-05 (J)		0.0002 (J)					
4/19/2017					8E-05 (J)	<0.001	6E-05 (J)	<0.001	<0.001
4/21/2017			<0.001						
5/30/2017				0.0002 (J)	9E-05 (J)				
6/1/2017						<0.001	8E-05 (J)	<0.001	<0.001
6/2/2017	<0.001	<0.001							
6/6/2017			<0.001						
6/15/2017			<0.001						
7/12/2017	<0.001								
7/13/2017		8E-05 (J)							
7/14/2017				0.0002 (J)	9E-05 (J)	<0.001	8E-05 (J)		
7/18/2017								<0.001	<0.001
7/19/2017			<0.001						
3/27/2018	<0.001			0.00019 (J)	<0.001	<0.001	<0.001		
3/28/2018		<0.001						<0.001	<0.001
3/29/2018			<0.001						
6/12/2018				0.0002 (J)					
6/13/2018								<0.001	
6/14/2018	<0.001	<0.001			<0.001	<0.001			<0.001
6/15/2018			<0.001				<0.001		
10/17/2018		<0.001			<0.001				
10/18/2018	<0.001			0.0002 (J)		<0.001			
10/19/2018			0.00017 (J)				<0.001		<0.001
10/22/2018								<0.001	
2/25/2019				0.00023 (J)					
2/27/2019					<0.001	<0.001		<0.001	
2/28/2019	<0.001	<0.001							
3/1/2019							<0.001		
3/6/2019			<0.001						
4/1/2019		<0.001							
4/2/2019	<0.001			0.0002 (J)	7.5E-05 (J)	<0.001			
4/3/2019							<0.001	<0.001	<0.001
4/4/2019			<0.001						

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
Mean	0.0005	0.0004046	0.0004764	0.0002169	0.0003077	0.0004662	0.0003373	0.0005	0.0005
Std. Dev.	0	0.0001813	8.82E-05	3.794E-05	0.0002162	0.000122	0.0002143	0	0
Upper Lim.	0.0005	0.0005	0.0005	0.00023	0.0005	0.0005	0.0005	0.0005	0.0005
Lower Lim.	0.0005	9E-05	0.00017	0.00019	8E-05	6E-05	8E-05	0.0005	0.0005

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.001
6/7/2016							<0.001	
6/8/2016	0.00035 (J)			<0.001		<0.001		
6/9/2016		0.0001 (J)	0.00022 (J)					
8/10/2016							<0.001	
8/11/2016						<0.001		<0.001
8/15/2016				<0.001				
8/18/2016	0.0005 (J)	<0.001	<0.001					
10/4/2016							<0.001	
10/5/2016								<0.001
10/6/2016						<0.001		
10/10/2016	0.0006 (J)	<0.001	0.0003 (J)	<0.001				
12/2/2016							<0.001	
12/5/2016								<0.001
12/6/2016						<0.001		
12/7/2016		<0.001	<0.001					
12/8/2016	0.0005 (J)			<0.001				
1/23/2017					0.0008 (J)			
2/7/2017					0.0008 (J)			
2/14/2017							<0.001	
2/15/2017						<0.001		<0.001
2/17/2017	0.0006 (J)							
2/20/2017		<0.001	0.0003 (J)	<0.001				
3/27/2017					0.0006 (J)			
4/14/2017							<0.001	
4/17/2017					0.0007 (J)			<0.001
4/18/2017						<0.001		
4/19/2017		<0.001	0.0004 (J)					
4/20/2017	0.0006 (J)			<0.001				
5/22/2017					0.0008 (J)			
5/26/2017							<0.001	<0.001
6/1/2017				<0.001				
6/2/2017						<0.001		
6/5/2017	0.0006 (J)	<0.001	0.0004 (J)		0.0007 (J)			
7/10/2017							<0.001	
7/11/2017					0.0007 (J)			<0.001
7/14/2017						<0.001		
7/17/2017		<0.001	0.0004 (J)	<0.001				
7/19/2017	0.0007 (J)							
8/23/2017					0.0007 (J)			
3/26/2018					0.00058 (J)		<0.001	
3/27/2018						<0.001		<0.001
3/28/2018				<0.001				
3/29/2018	0.00063 (J)	<0.001	0.00048 (J)					
6/12/2018							<0.001	<0.001
6/13/2018		<0.001	0.00053 (J)			<0.001		
6/14/2018	0.00069 (J)			<0.001				
6/15/2018					0.00056 (J)			
10/16/2018							<0.001	
10/17/2018								<0.001
10/18/2018						<0.001		
10/22/2018	0.00071 (J)	<0.001	0.00047 (J)	<0.001	0.00034 (J)			

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.001	
2/28/2019						<0.001		
3/1/2019	0.00074 (J)	<0.001	0.0007 (J)	<0.001	0.00024 (J)			
4/1/2019							<0.001	6.5E-05 (J)
4/2/2019					0.00024 (J)	7E-05 (J)		
4/3/2019	0.0007 (J)	<0.001	0.00064 (J)					
4/4/2019				<0.001				
Mean	0.0006092	0.0004692	0.0004492	0.0005	0.0005969	0.0004669	0.0005	0.0004638
Std. Dev.	0.0001088	0.0001109	0.0001344	0	0.0002018	0.0001193	0	0.0001256
Upper Lim.	0.0006901	0.0005	0.0005277	0.0005	0.000747	0.0005	0.0005	0.0005
Lower Lim.	0.0005283	0.0001	0.000282	0.0005	0.0004469	7E-05	0.0005	6.5E-05

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.616	0.024 (U)		0.284 (U)	0.135 (U)				
6/8/2016						0.406	0.264 (U)	0.863 (U)	0.573
8/11/2016				1.71	0.808				
8/12/2016		0.849				1.39	1.18	1.74	
8/16/2016	1.08								
8/17/2016			5.18						
8/18/2016									0.44 (U)
10/6/2016		1.57							
10/7/2016	2.82			0.485 (U)	0.874 (U)	0.451 (U)	1.97		
10/10/2016								0.944 (U)	0.933 (U)
12/5/2016		0.956							
12/6/2016	0.719 (U)			1.22	0.131 (U)	0.516 (U)			
12/7/2016							1.31 (U)	2.29	
12/8/2016									1.02 (U)
2/15/2017		0.229 (U)							
2/16/2017	0.966 (U)			0.19 (U)	0.471 (U)	0.172 (U)	0.35 (U)		
2/17/2017								1.35 (U)	0.193 (U)
2/21/2017			5.1						
4/18/2017	1.01 (U)	0.0114 (U)		0.52 (U)					
4/19/2017					0.65 (U)	0.704 (U)	0.974 (U)	1.48	0.488 (U)
5/26/2017			7.14						
5/30/2017				1.21 (U)	0.65 (U)				
6/1/2017						0.493 (U)	0.332 (U)	1.61	0.837 (U)
6/2/2017	1.13 (U)	0.375 (U)							
6/6/2017			4.68						
6/15/2017			5.69						
7/12/2017	1.29		2.92						
7/13/2017		0.636 (U)							
7/14/2017				0.526 (U)	0.592 (U)	0.547 (U)	1.27		
7/18/2017									0.498 (U)
7/19/2017								1.626	
8/10/2017			6.51						
8/25/2017			7.04						
3/27/2018	0.779 (U)			1.34	0.551 (U)	0.569 (U)	0.169 (U)		
3/28/2018		0.36 (U)						0.97 (U)	0.864 (U)
3/29/2018			6.35						
6/12/2018				0.732 (U)					
6/13/2018								0.686 (U)	
6/14/2018	1.22 (U)	0.316 (U)			0.638 (U)	0.989 (U)			0.583 (U)
6/15/2018			6.2				0.625 (U)		
10/17/2018		0.326 (U)			0.555 (U)				
10/18/2018	0.841 (U)			0.522 (U)		0.875 (U)			
10/19/2018			3.76				0.784 (U)		0.982 (U)
10/22/2018								0.559 (U)	
2/25/2019				1.08					
2/27/2019					1.57	1.12		1.24	
2/28/2019	1.88	1.04							
3/1/2019							0.989 (U)		
3/6/2019			9.46						
4/1/2019		0.328 (U)							
4/2/2019	1.21 (U)			1.73	0.71 (U)	0.814 (U)			
4/3/2019							0.98 (U)	0.567 (U)	0.532 (U)

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
4/4/2019			8.48						
Mean	1.197	0.54	6.039	0.8884	0.6412	0.6958	0.8613	1.225	0.6619
Std. Dev.	0.5834	0.4501	1.797	0.5227	0.3551	0.3322	0.5149	0.5189	0.2581
Upper Lim.	1.552	0.8748	7.375	1.277	0.9052	0.9428	1.244	1.611	0.8645
Lower Lim.	0.8002	0.2053	4.703	0.4997	0.3771	0.4489	0.4784	0.8391	0.4594

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.488
6/7/2016							0.0507 (U)	
6/8/2016	1.53			0.314 (U)		0.854		
6/9/2016		0.704	2.13					
8/10/2016							0.862 (U)	
8/11/2016						1.24		0.639 (U)
8/15/2016				1.2				
8/18/2016	2.47	1.88	2.67					
10/4/2016							0.48 (U)	
10/5/2016								0.945 (U)
10/6/2016						2.43		
10/10/2016	2.11	1.48	3.46	1.03 (U)				
12/2/2016							0.219 (U)	
12/5/2016								2.2
12/6/2016						0.958 (U)		
12/7/2016		2.61	1.65					
12/8/2016	2.64			1.47 (U)				
1/23/2017					2.17			
2/7/2017					3			
2/14/2017							0.636 (U)	
2/15/2017						1.18		0.74 (U)
2/17/2017	1.34							
2/20/2017		0.884 (U)	2.68	0.547 (U)				
4/14/2017							0.13 (U)	
4/17/2017					2.73			0.764 (U)
4/18/2017						1.26		
4/19/2017		0.948 (U)	3.81					
4/20/2017	2.35			0.0595 (U)				
5/22/2017					3.15			
5/26/2017							0.349 (U)	0.245 (U)
6/1/2017				0.67 (U)				
6/2/2017						1.24 (U)		
6/5/2017	1.6	1.33	2.86		0.86 (U)			
7/10/2017							0.565 (U)	
7/11/2017					1.87			0.502 (U)
7/14/2017						1.55		
7/17/2017		1.04	2.87	1.25 (U)				
7/19/2017	1.76							
8/23/2017					3.39			
3/26/2018					1.61		0.303 (U)	
3/27/2018						2.15		0.745 (U)
3/28/2018				0.507 (U)				
3/29/2018	2.43	1.65	2.79					
6/12/2018							0.494 (U)	0.319 (U)
6/13/2018		0.983 (U)	2.19			1.95		
6/14/2018	2.14			0.721 (U)				
6/15/2018					0.815 (U)			
10/16/2018							0.633 (U)	
10/17/2018								0.319 (U)
10/18/2018						1.1		
10/22/2018	1.43	1.21	2.18	0.741 (U)	1.02 (U)			
2/25/2019							1.03 (U)	

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 11/6/2019 11:59 AM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/28/2019						1.38		
3/1/2019	3.32	2.24	3.37	0.634 (U)	2.47			
4/1/2019							0.474 (U)	0.225 (U)
4/2/2019					2.29	1.57		
4/3/2019	2.48	2.86	3.6					
4/4/2019				0.346 (U)				
Mean	2.123	1.525	2.789	0.73	2.115	1.451	0.4789	0.6776
Std. Dev.	0.5733	0.6891	0.6447	0.4078	0.8943	0.4696	0.2779	0.5328
Upper Lim.	2.549	2.037	3.269	1.033	2.816	1.8	0.6856	0.9916
Lower Lim.	1.697	1.012	2.31	0.4268	1.413	1.102	0.2722	0.318

September/October 2019 event (AM 02)

GA EPD Based Groundwater
Protection Standards Statistical
Analysis Package

AM 02

Tolerance Limit (EPD)

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/9/2019, 3:11 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	20	95	n/a	0.3585	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	28	35.71	n/a	0.2378	NP Inter(normality)
Barium (mg/L)	n/a	0.218	n/a	n/a	n/a	28	0	n/a	0.2378	NP Inter(normality)
Beryllium (mg/L)	n/a	0.003	n/a	n/a	n/a	24	100	n/a	0.292	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	28	96.43	n/a	0.2378	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	24	66.67	n/a	0.292	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.005	n/a	n/a	n/a	29	89.66	n/a	0.2259	NP Inter(NDs)
Fluoride (mg/L)	n/a	0.3	n/a	n/a	n/a	31	32.26	n/a	0.2039	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	24	87.5	n/a	0.292	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	28	92.86	n/a	0.2378	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	24	91.67	n/a	0.292	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	29	65.52	n/a	0.2259	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	n/a	n/a	24	95.83	n/a	0.292	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	28	78.57	n/a	0.2378	NP Inter(NDs)
Total Radium (pCi/L)	n/a	1.888	n/a	n/a	n/a	28	0	No	0.05	Inter

Table F-2
EPD Based Groundwater Protection Standards
Plant Bowen - Ash Pond 1
Bartow County, Georgia

Constituent	CAS	Units	EPA MCL	Statistically Derived Upper Tolerance Limits for Background	GWPS ¹
Antimony	7440-36-0	mg/L	0.006	0.003	0.006
Arsenic	7440-38-2	mg/L	0.01	0.005	0.01
Barium	7440-39-3	mg/L	2	0.22	2
Beryllium	7440-41-7	mg/L	0.004	0.003	0.004
Cadmium	7440-43-9	mg/L	0.005	0.003	0.005
Chromium	7440-47-3	mg/L	0.1	0.01	0.1
Cobalt ²	7440-48-4	mg/L	N/A	0.005	0.005
Fluoride	16984-48-8	mg/L	4	0.3	4
Lead ²	7439-92-1	mg/L	N/A	0.005	0.005
Lithium ²	7439-93-2	mg/L	N/A	0.03	0.03
Mercury	7439-97-6	mg/L	0.002	0.0005	0.002
Molybdenum ²	7439-98-7	mg/L	N/A	0.01	0.01
Selenium	7782-49-2	mg/L	0.05	0.01	0.05
Thallium	7440-28-0	mg/L	0.002	0.001	0.002
Total Radium	7440-14-4	pCi/L	5	1.89	5

Notes:

EPA MCL - U.S. Environmental Protection Agency, Maximum Contaminant Level

GWPS - Groundwater Protection Standards

mg/L - milligram per liter

N/A - Not Available

pCi/L - Picocuries per liter

¹GWPS selected as the greater value between the EPA MCL and the background Upper Tolerance Limit.

²Constituent without established EPA MCL.

Confidence Interval (EPD) - Significant Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 3:32 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>
Cobalt (mg/L)	BGWC-22	0.01898	0.01181	0.005	Yes	15	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-20	0.01442	0.0123	0.01	Yes	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-22	0.06829	0.051	0.01	Yes	15	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-23	0.01314	0.01229	0.01	Yes	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-30	0.01849	0.01099	0.01	Yes	14	0	No	0.01	Param.

Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 3:32 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>
Arsenic (mg/L)	BGWC-10	0.007685	0.005515	0.01	No	14	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-12	0.00102	0.0004876	0.01	No	14	42.86	ln(x)	0.01	Param.
Arsenic (mg/L)	BGWC-14	0.003267	0.001287	0.01	No	15	26.67	No	0.01	Param.
Arsenic (mg/L)	BGWC-16	0.005	0.00073	0.01	No	14	50	No	0.01	NP (normality)
Arsenic (mg/L)	BGWC-17	0.005	0.00076	0.01	No	14	57.14	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-18	0.005	0.0005	0.01	No	14	57.14	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-19	0.000915	0.0003995	0.01	No	14	35.71	ln(x)	0.01	Param.
Arsenic (mg/L)	BGWC-20	0.001665	0.0008195	0.01	No	14	28.57	sqrt(x)	0.01	Param.
Arsenic (mg/L)	BGWC-21	0.001396	0.0006667	0.01	No	13	38.46	sqrt(x)	0.01	Param.
Arsenic (mg/L)	BGWC-22	0.003219	0.001681	0.01	No	14	7.143	No	0.01	Param.
Arsenic (mg/L)	BGWC-23	0.002859	0.001526	0.01	No	14	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-24	0.007151	0.00302	0.01	No	14	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-25	0.003233	0.00201	0.01	No	14	7.143	No	0.01	Param.
Arsenic (mg/L)	BGWC-30	0.002352	0.0007736	0.01	No	14	21.43	No	0.01	Param.
Arsenic (mg/L)	BGWC-7	0.003531	0.001883	0.01	No	14	14.29	No	0.01	Param.
Arsenic (mg/L)	BGWC-8	0.0008364	0.0004089	0.01	No	14	35.71	ln(x)	0.01	Param.
Arsenic (mg/L)	BGWC-9	0.003581	0.00225	0.01	No	13	7.692	No	0.01	Param.
Barium (mg/L)	BGWC-10	0.06653	0.05033	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-12	0.03317	0.02773	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-14	0.08095	0.06637	2	No	15	0	No	0.01	Param.
Barium (mg/L)	BGWC-16	0.03122	0.02703	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-17	0.01937	0.01546	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-18	0.0375	0.03006	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-19	0.04124	0.0329	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-20	0.03386	0.02957	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-21	0.04888	0.04	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-22	0.09396	0.08728	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-23	0.09656	0.08384	2	No	14	0	x^(1/3)	0.01	Param.
Barium (mg/L)	BGWC-24	0.1232	0.08349	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-25	0.0297	0.01995	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-30	0.1884	0.1065	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-7	0.04192	0.03651	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-8	0.03179	0.02497	2	No	14	0	x^2	0.01	Param.
Barium (mg/L)	BGWC-9	0.03388	0.02775	2	No	13	0	No	0.01	Param.
Beryllium (mg/L)	BGWC-10	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-12	0.003	0.000076	0.004	No	12	91.67	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-14	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-16	0.003	0.00008	0.004	No	12	75	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-17	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-18	0.003	0.00009	0.004	No	12	75	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-19	0.003	0.00008	0.004	No	12	83.33	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-20	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-21	0.003	0.003	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-22	0.003	0.000099	0.004	No	12	75	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-23	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-24	0.003	0.000093	0.004	No	12	91.67	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-25	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-30	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-7	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-8	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)

Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 3:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Beryllium (mg/L)	BGWC-9	0.003	0.003	0.004	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BGWC-10	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-12	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-14	0.0025	0.0025	0.005	No	15	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-16	0.001418	0.001139	0.005	No	14	0	No	0.01	Param.
Cadmium (mg/L)	BGWC-17	0.0025	0.0001	0.005	No	14	35.71	No	0.01	NP (normality)
Cadmium (mg/L)	BGWC-18	0.0004936	0.0001597	0.005	No	14	28.57	sqrt(x)	0.01	Param.
Cadmium (mg/L)	BGWC-19	0.0025	0.0002	0.005	No	14	78.57	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-20	0.0025	0.00008	0.005	No	14	92.86	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-21	0.0025	0.0025	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-22	0.0025	0.0002	0.005	No	14	85.71	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-23	0.0025	0.00019	0.005	No	14	92.86	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-24	0.005359	0.002144	0.005	No	14	0	No	0.01	Param.
Cadmium (mg/L)	BGWC-25	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-30	0.0003275	0.0001083	0.005	No	14	28.57	ln(x)	0.01	Param.
Cadmium (mg/L)	BGWC-7	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-8	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-9	0.0025	0.0025	0.005	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-10	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-12	0.01	0.00055	0.1	No	12	83.33	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-14	0.01	0.0014	0.1	No	13	84.62	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-16	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-17	0.01	0.00044	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-18	0.01	0.0011	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-19	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-20	0.01	0.0022	0.1	No	12	75	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-21	0.01	0.01	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-22	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-23	0.01	0.002	0.1	No	12	75	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-24	0.01	0.0009	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-25	0.01	0.0021	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-30	0.01	0.0004	0.1	No	12	41.67	No	0.01	NP (normality)
Chromium (mg/L)	BGWC-7	0.01	0.00055	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-8	0.00473	0.00071	0.1	No	12	33.33	ln(x)	0.01	Param.
Chromium (mg/L)	BGWC-9	0.01	0.01	0.1	No	11	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	BGWC-10	0.005	0.00056	0.005	No	14	85.71	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-12	0.005	0.0004	0.005	No	14	71.43	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-14	0.005	0.0003	0.005	No	15	80	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-16	0.006146	0.004298	0.005	No	14	7.143	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BGWC-17	0.005	0.00015	0.005	No	14	92.86	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-18	0.005	0.0006	0.005	No	14	64.29	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-19	0.005	0.000072	0.005	No	14	92.86	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-20	0.005	0.0008	0.005	No	14	85.71	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-21	0.005	0.00041	0.005	No	13	61.54	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-22	0.01898	0.01181	0.005	Yes	15	0	No	0.01	Param.
Cobalt (mg/L)	BGWC-23	0.005	0.0015	0.005	No	14	78.57	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-24	0.004388	0.002641	0.005	No	14	7.143	No	0.01	Param.
Cobalt (mg/L)	BGWC-25	0.005	0.0006	0.005	No	14	85.71	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-30	0.00087	0.0003613	0.005	No	14	35.71	ln(x)	0.01	Param.
Cobalt (mg/L)	BGWC-7	0.005	0.0006	0.005	No	14	28.57	No	0.01	NP (normality)

Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 3:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	BGWC-8	0.005	0.0003	0.005	No	14	71.43	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-9	0.005	0.0003	0.005	No	13	76.92	No	0.01	NP (NDs)
Fluoride (mg/L)	BGWC-10	0.2155	0.07312	4	No	15	13.33	No	0.01	Param.
Fluoride (mg/L)	BGWC-12	0.16	0.05082	4	No	15	26.67	No	0.01	Param.
Fluoride (mg/L)	BGWC-14	0.4232	0.1421	4	No	15	13.33	No	0.01	Param.
Fluoride (mg/L)	BGWC-16	0.2657	0.09608	4	No	15	26.67	No	0.01	Param.
Fluoride (mg/L)	BGWC-17	0.3247	0.1395	4	No	15	6.667	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-18	0.2397	0.08042	4	No	15	13.33	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-19	0.1833	0.0578	4	No	15	20	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-20	0.1729	0.02833	4	No	15	26.67	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-21	0.07347	0.03541	4	No	14	28.57	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BGWC-22	0.601	0.2697	4	No	16	0	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BGWC-23	0.3697	0.08844	4	No	15	13.33	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-24	2.1	0.5001	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	BGWC-25	0.1133	0.05639	4	No	15	26.67	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-30	0.4431	0.1395	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	BGWC-7	0.2212	0.1237	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	BGWC-8	0.3	0.02	4	No	15	46.67	No	0.01	NP (normality)
Fluoride (mg/L)	BGWC-9	0.3485	0.1309	4	No	14	0	No	0.01	Param.
Lead (mg/L)	BGWC-10	0.005	0.00019	0.005	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-12	0.005	0.0001	0.005	No	12	50	No	0.01	NP (normality)
Lead (mg/L)	BGWC-14	0.005	0.00009	0.005	No	13	92.31	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-16	0.005	0.0002	0.005	No	12	75	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-17	0.005	0.005	0.005	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-18	0.005	0.00009	0.005	No	12	41.67	No	0.01	NP (normality)
Lead (mg/L)	BGWC-19	0.005	0.0006	0.005	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-20	0.005	0.0001	0.005	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-21	0.005	0.000073	0.005	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-22	0.005	0.00033	0.005	No	12	83.33	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-23	0.005	0.005	0.005	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-24	0.005	0.00059	0.005	No	12	83.33	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-25	0.005	0.0002	0.005	No	12	58.33	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-30	0.005	0.00008	0.005	No	12	58.33	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-7	0.005	0.005	0.005	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-8	0.005	0.0003	0.005	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-9	0.005	0.000092	0.005	No	11	45.45	No	0.006	NP (normality)
Lithium (mg/L)	BGWC-10	0.03	0.0011	0.03	No	14	42.86	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-12	0.03	0.0011	0.03	No	14	78.57	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-14	0.03	0.03	0.03	No	15	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-16	0.03	0.00049	0.03	No	14	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-17	0.03	0.00069	0.03	No	14	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-18	0.03	0.03	0.03	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-19	0.03	0.03	0.03	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-20	0.02231	0.01603	0.03	No	14	0	No	0.01	Param.
Lithium (mg/L)	BGWC-21	0.03	0.03	0.03	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-22	0.02429	0.01285	0.03	No	14	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	BGWC-23	0.01566	0.009487	0.03	No	14	0	No	0.01	Param.
Lithium (mg/L)	BGWC-24	0.0075	0.0053	0.03	No	14	7.143	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-25	0.03	0.03	0.03	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-30	0.01802	0.01075	0.03	No	14	0	x^3	0.01	Param.

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Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 3:32 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BGWC-7	0.0102	0.0079	0.03	No	14	7.143	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-8	0.03	0.001	0.03	No	14	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-9	0.03	0.0012	0.03	No	13	53.85	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-10	0.0005	0.0001	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-12	0.0005	0.0001	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-14	0.0005	0.000062	0.002	No	13	92.31	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-16	0.0005	0.000098	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-17	0.0002546	0.0001412	0.002	No	12	16.67	sqrt(x)	0.01	Param.
Mercury (mg/L)	BGWC-18	0.0005	0.000079	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-19	0.0005	0.00008	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-20	0.0005	0.000066	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-21	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-22	0.0005	0.000092	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-23	0.0005	0.00005	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-24	0.0006954	-0.00001456	0.002	No	12	25	No	0.01	Param.
Mercury (mg/L)	BGWC-25	0.0005	0.000047	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-30	0.00009032	0.00005166	0.002	No	12	33.33	ln(x)	0.01	Param.
Mercury (mg/L)	BGWC-7	0.0005	0.000053	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-8	0.0005	0.000097	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-9	0.0005	0.0005	0.002	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	BGWC-10	0.0039	0.0032	0.01	No	14	0	No	0.01	NP (normality)
Molybdenum (mg/L)	BGWC-12	0.01	0.01	0.01	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-14	0.01109	0.007351	0.01	No	15	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-16	0.01	0.01	0.01	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-17	0.01	0.01	0.01	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-18	0.01	0.01	0.01	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-19	0.01	0.00023	0.01	No	14	92.86	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-20	0.01442	0.0123	0.01	Yes	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-21	0.002475	0.001507	0.01	No	13	38.46	ln(x)	0.01	Param.
Molybdenum (mg/L)	BGWC-22	0.06829	0.051	0.01	Yes	15	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-23	0.01314	0.01229	0.01	Yes	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-24	0.00358	0.001497	0.01	No	14	21.43	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	BGWC-25	0.003693	0.001649	0.01	No	14	42.86	x^(1/3)	0.01	Param.
Molybdenum (mg/L)	BGWC-30	0.01849	0.01099	0.01	Yes	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-7	0.01285	0.008381	0.01	No	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-8	0.003622	0.001334	0.01	No	14	21.43	No	0.01	Param.
Molybdenum (mg/L)	BGWC-9	0.003593	0.002761	0.01	No	13	0	No	0.01	Param.
Selenium (mg/L)	BGWC-10	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-12	0.01	0.0004	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-14	0.01	0.0011	0.05	No	13	84.62	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-16	0.01	0.0012	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-17	0.01	0.00077	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-18	0.01	0.001	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-19	0.01	0.00058	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-20	0.01	0.0037	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-21	0.01	0.001	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-22	0.012	0.0018	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-23	0.0176	0.01	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-24	0.00938	0.001925	0.05	No	12	16.67	sqrt(x)	0.01	Param.
Selenium (mg/L)	BGWC-25	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)

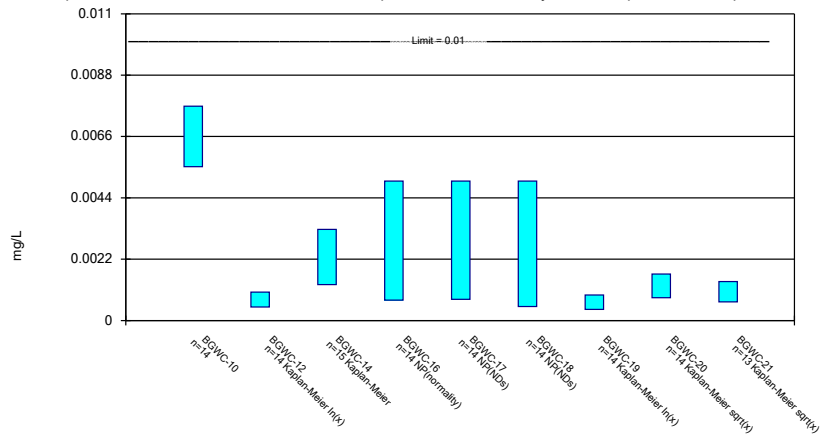
Confidence Interval (EPD) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/11/2019, 3:32 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>
Selenium (mg/L)	BGWC-30	0.0121	0.007765	0.05	No	12	8.333	No	0.01	Param.
Selenium (mg/L)	BGWC-7	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-8	0.01	0.00015	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-9	0.01	0.0004	0.05	No	11	54.55	No	0.006	NP (NDs)
Thallium (mg/L)	BGWC-10	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-12	0.001	0.00008	0.002	No	14	71.43	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-14	0.001	0.00017	0.002	No	15	93.33	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-16	0.00023	0.00019	0.002	No	14	0	No	0.01	NP (normality)
Thallium (mg/L)	BGWC-17	0.001	0.00008	0.002	No	14	50	No	0.01	NP (normality)
Thallium (mg/L)	BGWC-18	0.001	0.000071	0.002	No	14	85.71	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-19	0.001	0.00008	0.002	No	14	57.14	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-20	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-21	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-22	0.0007186	0.0005385	0.002	No	14	0	No	0.01	Param.
Thallium (mg/L)	BGWC-23	0.001	0.00018	0.002	No	14	85.71	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-24	0.0007098	0.0003659	0.002	No	14	14.29	No	0.01	Param.
Thallium (mg/L)	BGWC-25	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-30	0.0007266	0.000402	0.002	No	14	0	No	0.01	Param.
Thallium (mg/L)	BGWC-7	0.001	0.000087	0.002	No	14	85.71	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-8	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-9	0.001	0.000065	0.002	No	13	92.31	No	0.01	NP (NDs)
Total Radium (pCi/L)	BGWC-10	1.494	0.8	5	No	14	0	sqrt(x)	0.01	Param.
Total Radium (pCi/L)	BGWC-12	0.8548	0.2408	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-14	7.261	4.816	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-16	1.3	0.5572	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-17	0.9405	0.4174	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-18	0.9477	0.4836	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-19	1.238	0.5277	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-20	1.554	0.8159	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-21	0.9108	0.4897	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-22	2.586	1.761	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-23	2.069	1.088	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-24	3.224	2.346	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-25	1.027	0.4652	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-30	2.709	1.384	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-7	1.808	1.151	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-8	0.8626	0.2682	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-9	1.083	0.3562	5	No	13	0	sqrt(x)	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

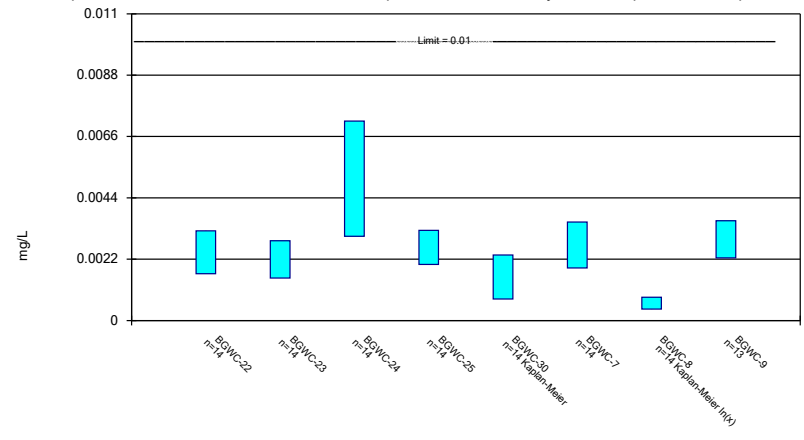
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

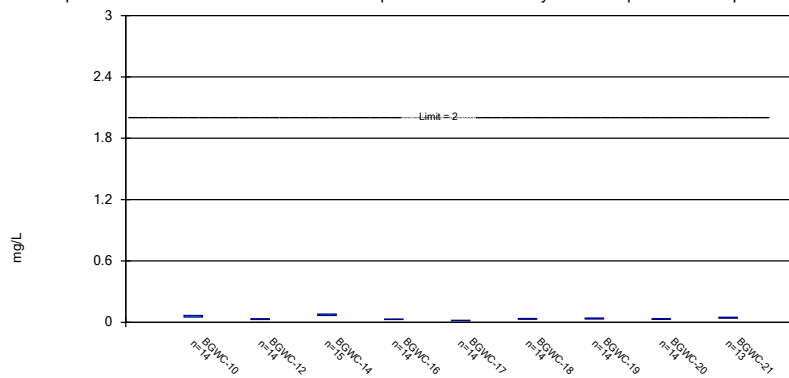
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

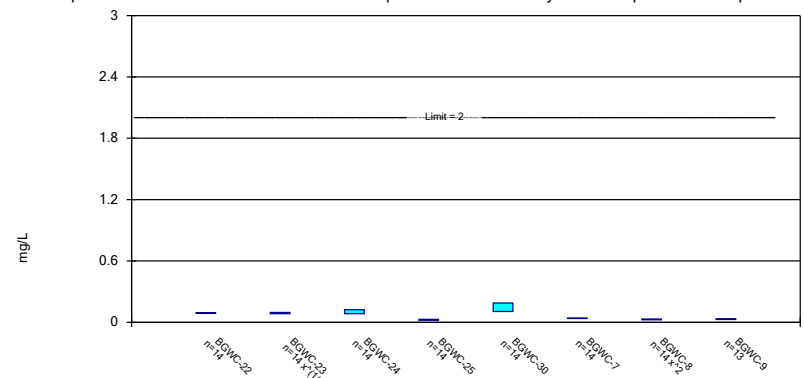
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0039	<0.005		<0.005	<0.005				
6/8/2016						<0.005	0.00046 (J)	0.0011 (J)	0.0015
6/10/2016			0.0049						
8/11/2016				<0.005	<0.005				
8/12/2016		0.0009 (J)				<0.005	0.0008 (J)	0.0017 (J)	
8/16/2016	0.0091								
8/17/2016			0.0042 (J)						
8/18/2016									<0.005
10/6/2016		<0.005							
10/7/2016	0.0074		<0.005	<0.005	<0.005	<0.005	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		<0.005							
12/6/2016	0.0044 (J)			<0.005	<0.005	<0.005			
12/7/2016							<0.005	<0.005	
12/8/2016			<0.005						<0.005
2/15/2017		<0.005							
2/16/2017	0.0081			<0.005	<0.005	<0.005	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	0.0084	0.0009 (J)		0.0007 (J)					
4/19/2017					0.0012 (J)	0.0013 (J)	0.0015 (J)	0.002 (J)	0.002 (J)
4/21/2017			0.0039 (J)						
5/30/2017				0.0008 (J)	0.0006 (J)				
6/1/2017						0.0005 (J)	0.0008 (J)	0.0017 (J)	0.0011 (J)
6/2/2017	0.008	0.0015 (J)							
6/6/2017			0.001 (J)						
6/15/2017			0.0024 (J)						
7/12/2017	0.0063								
7/13/2017		0.0006 (J)							
7/14/2017				0.0008 (J)	<0.005	<0.005	0.0006 (J)		
7/18/2017								0.0018 (J)	0.0015 (J)
7/19/2017			0.0031 (J)						
3/27/2018	0.0064			0.0014 (J)	0.00076 (J)	0.00066 (J)	0.00082 (J)		
3/28/2018		0.0015 (J)						0.0018 (J)	0.0012 (J)
3/29/2018			0.0017 (J)						
6/12/2018				0.00073 (J)					
6/13/2018								0.0015 (J)	
6/14/2018	0.0075	0.00096 (J)			<0.005	<0.005			0.00087 (J)
6/15/2018			0.00074 (J)				0.00074 (J)		
10/17/2018		<0.005			<0.005				
10/18/2018	0.0056			<0.005		<0.005			
10/19/2018			<0.005				<0.005		0.00059 (J)
10/22/2018								<0.005	
2/25/2019				<0.005					
2/27/2019					0.001 (J)	0.00083 (J)		0.0014 (J)	
2/28/2019	0.0058	<0.005							
3/1/2019							<0.005		
3/6/2019			0.0015 (J)						
4/1/2019		0.00028 (J)							
4/2/2019	0.0057			0.0003 (J)	0.00024 (J)	0.00015 (J)			
4/3/2019							0.00017 (J)	0.00027 (J)	0.00038 (J)
4/4/2019			0.00041 (J)						

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	0.0058	0.00085 (J)	0.0012 (J)						
9/26/2019				0.00074 (J)	0.0008 (J)	0.00046 (J)	0.00067 (J)	0.00087 (J)	
9/30/2019									<0.005
Mean	0.0066	0.002678	0.003003	0.002891	0.003186	0.003136	0.002254	0.002439	0.002626
Std. Dev.	0.001532	0.002109	0.001797	0.0022	0.002184	0.002247	0.002142	0.001738	0.001995
Upper Lim.	0.007685	0.00102	0.003267	0.005	0.005	0.005	0.000915	0.001665	0.001396
Lower Lim.	0.005515	0.0004876	0.001287	0.00073	0.00076	0.0005	0.0003995	0.0008195	0.0006667

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.0022
6/7/2016							0.00018 (J)	
6/8/2016	0.0012 (J)			0.0037		0.0024		
6/9/2016		0.0012 (J)	0.0016					
8/10/2016							<0.005	
8/11/2016						0.0024 (J)		0.0028 (J)
8/15/2016				0.003 (J)				
8/18/2016	0.0022 (J)	0.003 (J)	0.0054					
10/4/2016							<0.005	
10/5/2016								0.002 (J)
10/6/2016						<0.005		
10/10/2016	0.002 (J)	0.0021 (J)	0.0079	0.0026 (J)				
12/2/2016							<0.005	
12/5/2016								<0.005
12/6/2016						<0.005		
12/7/2016		0.0023 (J)	0.0121					
12/8/2016	<0.005			<0.005				
1/23/2017					<0.005			
2/7/2017					<0.005			
2/14/2017							<0.005	
2/15/2017						0.003 (J)		0.0033 (J)
2/17/2017	0.0023 (J)							
2/20/2017		0.0025 (J)	0.0063	0.0029 (J)				
3/27/2017					0.0019 (J)			
4/14/2017							0.0007 (J)	
4/17/2017					0.0017 (J)			0.0028 (J)
4/18/2017						0.0029 (J)		
4/19/2017		0.0032 (J)	0.0051					
4/20/2017	0.0028 (J)			0.0024 (J)				
5/22/2017					0.0034 (J)			
5/26/2017							0.0008 (J)	0.0035 (J)
6/1/2017				0.0025 (J)				
6/2/2017						0.0031 (J)		
6/5/2017	0.0035 (J)	0.0043 (J)	0.0072		0.0039 (J)			
7/10/2017							0.0011 (J)	
7/11/2017					0.0016 (J)			0.0033 (J)
7/14/2017						0.0017 (J)		
7/17/2017		0.0017 (J)	0.0031 (J)	0.0021 (J)				
7/19/2017	0.0028 (J)							
8/23/2017					0.001 (J)			
3/26/2018					0.0015 (J)		0.0009 (J)	
3/27/2018						0.0028 (J)		0.0021 (J)
3/28/2018				0.0019 (J)				
3/29/2018	0.0037 (J)	0.0028 (J)	0.0075 (J)					
6/12/2018							0.00065 (J)	0.0015 (J)
6/13/2018		0.0019 (J)	0.0045 (J)			0.0023 (J)		
6/14/2018	0.0027 (J)			0.0022 (J)				
6/15/2018					0.00089 (J)			
10/16/2018							0.00064 (J)	
10/17/2018								0.0035 (J)
10/18/2018						0.0015 (J)		
10/22/2018	0.0016 (J)	0.0015 (J)	0.0027 (J)	0.0026 (J)	0.00064 (J)			

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.005	
2/28/2019						0.0011 (J)		
3/1/2019	0.0011 (J)	0.0023 (J)	0.0032 (J)	0.0022 (J)	<0.005			
4/1/2019							0.00041 (J)	0.0026 (J)
4/2/2019					0.00024 (J)	0.0016 (J)		
4/3/2019	0.0021 (J)	0.00093 (J)	0.0019 (J)					
4/4/2019				0.0016 (J)				
9/24/2019						0.0031 (J)	0.00047 (J)	0.0033 (J)
9/27/2019	0.0013 (J)	0.00096 (J)			0.00042 (J)			
9/30/2019			0.0027 (J)	0.002 (J)				
Mean	0.00245	0.002192	0.005086	0.002621	0.002299	0.002707	0.002204	0.002915
Std. Dev.	0.001085	0.0009409	0.002916	0.0008631	0.001787	0.001163	0.002174	0.0008952
Upper Lim.	0.003219	0.002859	0.007151	0.003233	0.002352	0.003531	0.0008364	0.003581
Lower Lim.	0.001681	0.001526	0.00302	0.00201	0.0007736	0.001883	0.0004089	0.00225

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.091	0.027		0.027	0.017				
6/8/2016						0.039	0.036	0.036	0.054
6/10/2016			0.08						
8/11/2016				0.0292	0.0152				
8/12/2016		0.026				0.031	0.0412	0.0283	
8/16/2016	0.0667								
8/17/2016			0.0801						
8/18/2016									0.0479
10/6/2016		0.0308							
10/7/2016	0.0631		0.0764	0.0295	0.0225	0.0427	0.0427		
10/10/2016								0.0288	0.0433
12/5/2016		0.0258							
12/6/2016	0.0659			0.0367	0.0171	0.0398			
12/7/2016							0.0338	0.0279	
12/8/2016			0.0723						0.0474
2/15/2017		0.029							
2/16/2017	0.0621			0.0315	0.0187	0.0309	0.0407		
2/17/2017								0.0316	0.0483
2/21/2017			0.0789						
4/18/2017	0.0545	0.0294		0.0272					
4/19/2017					0.0183	0.0325	0.042	0.0367	0.0486
4/21/2017			0.0871						
5/30/2017				0.0316	0.0179				
6/1/2017						0.0331	0.0341	0.0361	0.0468
6/2/2017	0.0555	0.0354							
6/6/2017			0.0789						
6/15/2017			0.0822						
7/12/2017	0.0572								
7/13/2017		0.0329							
7/14/2017				0.029	0.0191	0.0349	0.0405		
7/18/2017								0.0346	0.0494
7/19/2017			0.091						
3/27/2018	0.051			0.027	0.015	0.027	0.029		
3/28/2018		0.034						0.03	0.043
3/29/2018			0.067						
6/12/2018				0.029					
6/13/2018								0.031	
6/14/2018	0.053	0.032			0.016	0.032			0.042
6/15/2018			0.066				0.032		
10/17/2018		0.033			0.015				
10/18/2018	0.053			0.026		0.033			
10/19/2018			0.065				0.037		0.038
10/22/2018								0.03	
2/25/2019				0.028					
2/27/2019					0.014	0.027		0.032	
2/28/2019	0.053	0.033							
3/1/2019							0.028		
3/6/2019			0.065						
4/1/2019		0.023							
4/2/2019	0.045			0.025	0.015	0.028			
4/3/2019							0.033	0.029	0.033
4/4/2019			0.049						

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	0.047	0.035	0.066						
9/26/2019				0.031	0.023	0.042	0.049	0.032	
9/30/2019									0.036
Mean	0.05843	0.03045	0.07366	0.02912	0.01741	0.03378	0.03707	0.03171	0.04444
Std. Dev.	0.01144	0.003837	0.01076	0.002956	0.002758	0.005256	0.005888	0.003031	0.005968
Upper Lim.	0.06653	0.03317	0.08095	0.03122	0.01937	0.0375	0.04124	0.03386	0.04888
Lower Lim.	0.05033	0.02773	0.06637	0.02703	0.01546	0.03006	0.0329	0.02957	0.04

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.034
6/7/2016							0.0051	
6/8/2016	0.092			0.038		0.048		
6/9/2016		0.11	0.14					
8/10/2016							0.0264	
8/11/2016						0.0428		0.0305
8/15/2016				0.0321				
8/18/2016	0.0953	0.0893	0.113					
10/4/2016							0.0316	
10/5/2016								0.0289
10/6/2016						0.0404		
10/10/2016	0.0954	0.0839	0.0888	0.0283				
12/2/2016							0.026	
12/5/2016								0.0269
12/6/2016						0.0385		
12/7/2016		0.0912	0.0289					
12/8/2016	0.0991			0.0294				
1/23/2017					0.237			
2/7/2017					0.191			
2/14/2017							0.0299	
2/15/2017						0.039		0.0299
2/17/2017	0.0927							
2/20/2017		0.0813	0.0999	0.0275				
3/27/2017					0.197			
4/14/2017							0.0275	
4/17/2017					0.192			0.0318
4/18/2017						0.0392		
4/19/2017		0.087	0.114					
4/20/2017	0.086			0.0279				
5/22/2017					0.197			
5/26/2017							0.0328	0.0341
6/1/2017				0.0313				
6/2/2017						0.0407		
6/5/2017	0.0875	0.084	0.135		0.201			
7/10/2017							0.0305	
7/11/2017					0.179			0.0355
7/14/2017						0.0394		
7/17/2017		0.0809	0.134	0.0251				
7/19/2017	0.0877							
8/23/2017					0.15			
3/26/2018					0.1		0.029	
3/27/2018						0.039		0.026
3/28/2018				0.018				
3/29/2018	0.088	0.085	0.08					
6/12/2018							0.031	0.024
6/13/2018		0.091	0.1			0.038		
6/14/2018	0.093			0.019				
6/15/2018					0.087			
10/16/2018							0.034	
10/17/2018								0.037
10/18/2018						0.037		
10/22/2018	0.088	0.087	0.1	0.018	0.1			

Confidence Interval

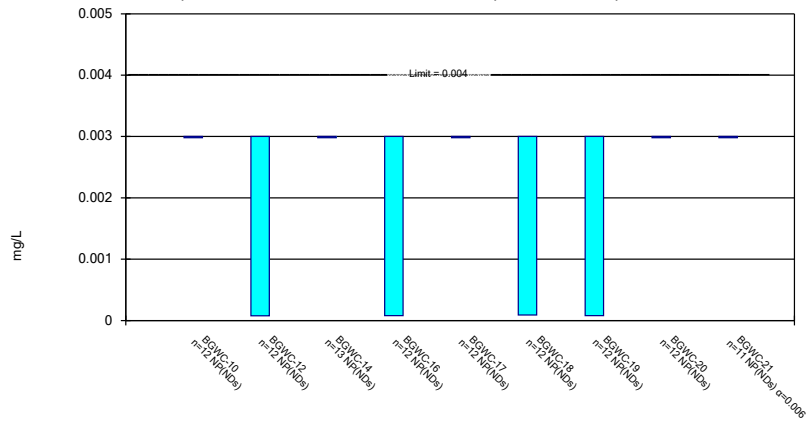
Constituent: Barium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							0.03	
2/28/2019						0.041		
3/1/2019	0.087	0.097	0.12	0.021	0.078			
4/1/2019							0.025	0.027
4/2/2019					0.075	0.031		
4/3/2019	0.082	0.087	0.095					
4/4/2019				0.016				
9/24/2019						0.035	0.03	0.035
9/27/2019	0.095	0.11			0.08			
9/30/2019			0.098	0.016				
Mean	0.09062	0.09033	0.1033	0.02483	0.1474	0.03921	0.02777	0.03082
Std. Dev.	0.004711	0.00934	0.02801	0.006881	0.05782	0.003814	0.007013	0.00412
Upper Lim.	0.09396	0.09656	0.1232	0.0297	0.1884	0.04192	0.03179	0.03388
Lower Lim.	0.08728	0.08384	0.08349	0.01995	0.1065	0.03651	0.02497	0.02775

Non-Parametric Confidence Interval

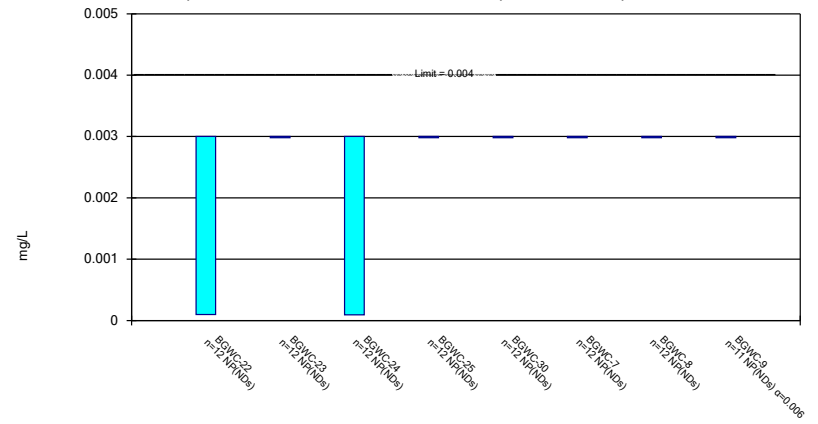
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

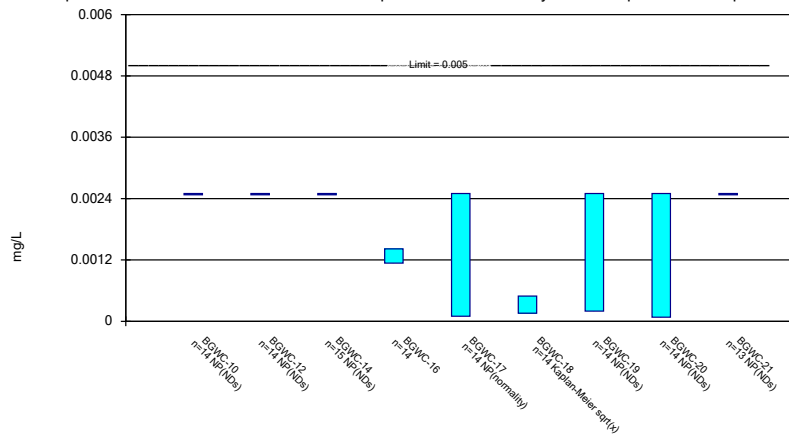
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

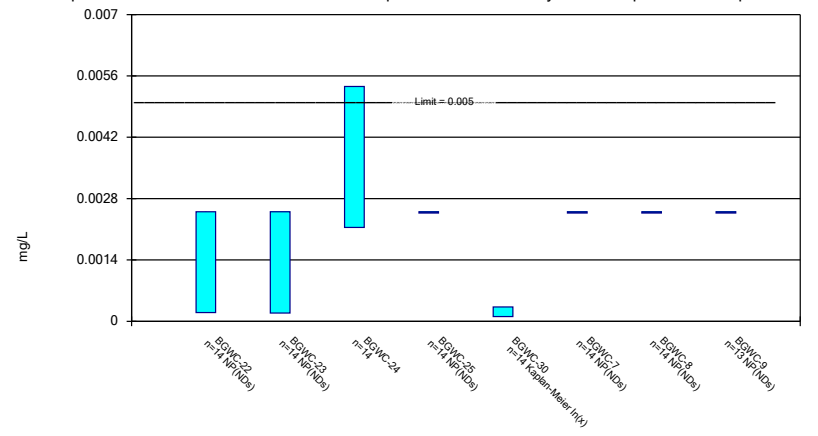
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.003	<0.003		<0.003	<0.003				
6/8/2016						<0.003	<0.003	<0.003	<0.003
6/10/2016			<0.003						
8/11/2016				<0.003	<0.003				
8/12/2016		<0.003				<0.003	<0.003	<0.003	
8/16/2016	<0.003								
8/17/2016			<0.003						
8/18/2016									<0.003
10/6/2016		<0.003							
10/7/2016	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003		
10/10/2016								<0.003	<0.003
12/5/2016		<0.003							
12/6/2016	<0.003			<0.003	<0.003	<0.003			
12/7/2016							<0.003	<0.003	
12/8/2016			<0.003						<0.003
2/15/2017		<0.003							
2/16/2017	<0.003			<0.003	<0.003	<0.003	<0.003		
2/17/2017								<0.003	<0.003
2/21/2017			<0.003						
4/18/2017	<0.003	<0.003		<0.003					
4/19/2017					<0.003	<0.003	8E-05 (J)	<0.003	<0.003
4/21/2017			<0.003						
5/30/2017				<0.003	<0.003				
6/1/2017						9E-05 (J)	7E-05 (J)	<0.003	<0.003
6/2/2017	<0.003	<0.003							
6/6/2017			<0.003						
6/15/2017			<0.003						
7/12/2017	<0.003								
7/13/2017		<0.003							
7/14/2017				<0.003	<0.003	<0.003	<0.003		
7/18/2017								<0.003	<0.003
7/19/2017			<0.003						
3/27/2018	<0.003			<0.003	<0.003	<0.003	<0.003		
3/28/2018		<0.003						<0.003	<0.003
3/29/2018			<0.003						
2/25/2019				8.7E-05 (J)					
2/27/2019					<0.003	0.00011 (J)		<0.003	
2/28/2019	<0.003	7.6E-05 (J)							
3/1/2019							<0.003		
3/6/2019			<0.003						
4/1/2019		<0.003							
4/2/2019	<0.003			6.3E-05 (J)	<0.003	5.2E-05 (J)			
4/3/2019							<0.003	<0.003	<0.003
4/4/2019			<0.003						
9/25/2019	<0.003	<0.003	<0.003						
9/26/2019				8E-05 (J)	<0.003	<0.003	<0.003	<0.003	
9/30/2019									<0.003
Mean	0.003	0.002756	0.003	0.002269	0.003	0.002271	0.002513	0.003	0.003
Std. Dev.	0	0.0008441	0	0.001322	0	0.001319	0.001139	0	0
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.003	7.6E-05	0.003	8E-05	0.003	9E-05	8E-05	0.003	0.003

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.003
6/7/2016							<0.003	
6/8/2016	<0.003			<0.003		<0.003		
6/9/2016		<0.003	<0.003					
8/10/2016							<0.003	
8/11/2016						<0.003		<0.003
8/15/2016				<0.003				
8/18/2016	<0.003	<0.003	<0.003					
10/4/2016							<0.003	
10/5/2016								<0.003
10/6/2016						<0.003		
10/10/2016	<0.003	<0.003	<0.003	<0.003				
12/2/2016							<0.003	
12/5/2016								<0.003
12/6/2016						<0.003		
12/7/2016		<0.003	<0.003					
12/8/2016	<0.003			<0.003				
1/23/2017					<0.003			
2/7/2017					<0.003			
2/14/2017							<0.003	
2/15/2017						<0.003		<0.003
2/17/2017	<0.003							
2/20/2017		<0.003	<0.003	<0.003				
3/27/2017					<0.003			
4/14/2017							<0.003	
4/17/2017					<0.003			<0.003
4/18/2017						<0.003		
4/19/2017		<0.003	<0.003					
4/20/2017	<0.003			<0.003				
5/22/2017					<0.003			
5/26/2017							<0.003	<0.003
6/1/2017				<0.003				
6/2/2017						<0.003		
6/5/2017	<0.003	<0.003	<0.003		<0.003			
7/10/2017							<0.003	
7/11/2017					<0.003			<0.003
7/14/2017						<0.003		
7/17/2017		<0.003	<0.003	<0.003				
7/19/2017	<0.003							
8/23/2017					<0.003			
3/26/2018					<0.003		<0.003	
3/27/2018						<0.003		<0.003
3/28/2018				<0.003				
3/29/2018	<0.003	<0.003	<0.003					
2/25/2019							<0.003	
2/28/2019						<0.003		
3/1/2019	0.00012 (J)	<0.003	<0.003	<0.003	<0.003			
4/1/2019							<0.003	<0.003
4/2/2019					<0.003	<0.003		
4/3/2019	6.7E-05 (J)	<0.003	<0.003					
4/4/2019				<0.003				
9/24/2019						<0.003	<0.003	<0.003

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	9.9E-05 (J)	<0.003			<0.003			
9/30/2019			9.3E-05 (J)	<0.003				
Mean	0.002274	0.003	0.002758	0.003	0.003	0.003	0.003	0.003
Std. Dev.	0.001314	0	0.0008392	0	0	0	0	0
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	9.9E-05	0.003	9.3E-05	0.003	0.003	0.003	0.003	0.003

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.0025	<0.0025		0.0011 (J)	<0.0025				
6/8/2016						0.00063 (J)	<0.0025	<0.0025	<0.0025
6/10/2016			<0.0025						
8/11/2016				0.0011	0.0001 (J)				
8/12/2016		<0.0025				0.0004 (J)	<0.0025	<0.0025	
8/16/2016	<0.0025								
8/17/2016			<0.0025						
8/18/2016									<0.0025
10/6/2016		<0.0025							
10/7/2016	<0.0025		<0.0025	0.0012	0.0002 (J)	0.0008 (J)	0.0001 (J)		
10/10/2016								<0.0025	<0.0025
12/5/2016		<0.0025							
12/6/2016	<0.0025			0.0012	0.0001 (J)	0.0006 (J)			
12/7/2016							<0.0025	<0.0025	
12/8/2016			<0.0025						<0.0025
2/15/2017		<0.0025							
2/16/2017	<0.0025			0.0015	0.0001 (J)	0.0002 (J)	<0.0025		
2/17/2017								8E-05 (J)	<0.0025
2/21/2017			<0.0025						
4/18/2017	<0.0025	<0.0025		0.0012					
4/19/2017					0.0001 (J)	9E-05 (J)	<0.0025	<0.0025	<0.0025
4/21/2017			<0.0025						
5/30/2017				0.0011	0.0002 (J)				
6/1/2017						0.0003 (J)	0.0001 (J)	<0.0025	<0.0025
6/2/2017	<0.0025	<0.0025							
6/6/2017			<0.0025						
6/15/2017			<0.0025						
7/12/2017	<0.0025								
7/13/2017		<0.0025							
7/14/2017				0.0012	0.0002 (J)	0.0002 (J)	<0.0025		
7/18/2017								<0.0025	<0.0025
7/19/2017			<0.0025						
3/27/2018	<0.0025			0.0013	<0.0025	<0.0025	<0.0025		
3/28/2018		<0.0025						<0.0025	<0.0025
3/29/2018			<0.0025						
6/12/2018				0.0011					
6/13/2018								<0.0025	
6/14/2018	<0.0025	<0.0025			0.00015 (J)	<0.0025			<0.0025
6/15/2018			<0.0025				<0.0025		
10/17/2018		<0.0025			<0.0025				
10/18/2018	<0.0025			0.0012		0.00032 (J)			
10/19/2018			<0.0025				<0.0025		<0.0025
10/22/2018								<0.0025	
2/25/2019				0.0016					
2/27/2019					<0.0025	<0.0025		<0.0025	
2/28/2019	<0.0025	<0.0025							
3/1/2019							<0.0025		
3/6/2019			<0.0025						
4/1/2019		<0.0025							
4/2/2019	<0.0025			0.0014	<0.0025	7.3E-05 (J)			
4/3/2019							<0.0025	<0.0025	<0.0025
4/4/2019			<0.0025						

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	<0.0025	<0.0025	<0.0025						
9/26/2019				0.0017 (J)	0.00015 (J)	<0.0025	0.0002 (J)	<0.0025	
9/30/2019									<0.0025
Mean	0.0025	0.0025	0.0025	0.001279	0.0009857	0.0009724	0.001993	0.002327	0.0025
Std. Dev.	0	0	0	0.0001968	0.001172	0.001023	0.001008	0.0006468	0
Upper Lim.	0.0025	0.0025	0.0025	0.001418	0.0025	0.0004936	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0025	0.0025	0.001139	0.0001	0.0001597	0.0002	8E-05	0.0025

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.0025
6/7/2016							<0.0025	
6/8/2016	<0.0025			<0.0025		<0.0025		
6/9/2016		<0.0025	0.00052 (J)					
8/10/2016							<0.0025	
8/11/2016						<0.0025		<0.0025
8/15/2016				<0.0025				
8/18/2016	<0.0025	<0.0025	0.0009 (J)					
10/4/2016							<0.0025	
10/5/2016								<0.0025
10/6/2016						<0.0025		
10/10/2016	<0.0025	<0.0025	0.0017	<0.0025				
12/2/2016							<0.0025	
12/5/2016								<0.0025
12/6/2016						<0.0025		
12/7/2016		<0.0025	0.0004 (J)					
12/8/2016	0.0002 (J)			<0.0025				
1/23/2017					0.0003 (J)			
2/7/2017					0.0006 (J)			
2/14/2017							<0.0025	
2/15/2017						<0.0025		<0.0025
2/17/2017	<0.0025							
2/20/2017		<0.0025	0.0028	<0.0025				
3/27/2017					0.0003 (J)			
4/14/2017							<0.0025	
4/17/2017					0.0002 (J)			<0.0025
4/18/2017						<0.0025		
4/19/2017		<0.0025	0.0035					
4/20/2017	<0.0025			<0.0025				
5/22/2017					0.0003 (J)			
5/26/2017							<0.0025	<0.0025
6/1/2017				<0.0025				
6/2/2017						<0.0025		
6/5/2017	<0.0025	<0.0025	0.0035		0.0003 (J)			
7/10/2017							<0.0025	
7/11/2017					0.0005 (J)			<0.0025
7/14/2017						<0.0025		
7/17/2017		<0.0025	0.0037	<0.0025				
7/19/2017	<0.0025							
8/23/2017					0.0004 (J)			
3/26/2018					<0.0025		<0.0025	
3/27/2018						<0.0025		<0.0025
3/28/2018				<0.0025				
3/29/2018	<0.0025	<0.0025	0.0063					
6/12/2018							<0.0025	<0.0025
6/13/2018		<0.0025	0.0053			<0.0025		
6/14/2018	<0.0025			<0.0025				
6/15/2018					0.0002 (J)			
10/16/2018							<0.0025	
10/17/2018								<0.0025
10/18/2018						<0.0025		
10/22/2018	<0.0025	<0.0025	0.0053	<0.0025	<0.0025			

Confidence Interval

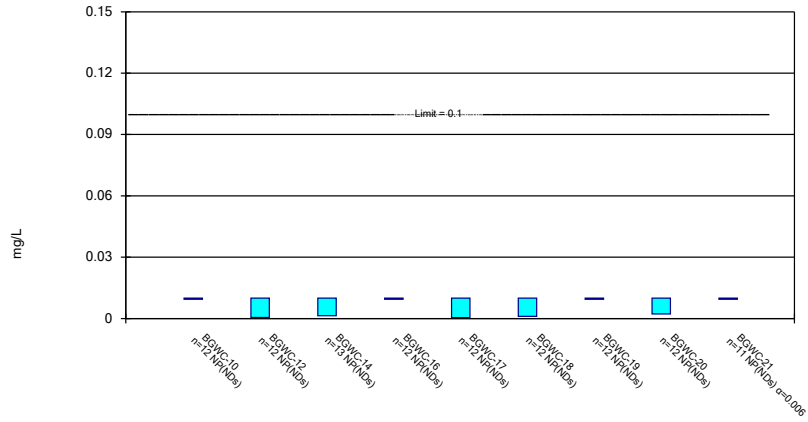
Constituent: Cadmium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.0025	
2/28/2019						<0.0025		
3/1/2019	0.00013 (J)	0.00019 (J)	0.0058	<0.0025	<0.0025			
4/1/2019							<0.0025	<0.0025
4/2/2019					7.9E-05 (J)	<0.0025		
4/3/2019	<0.0025	<0.0025	0.0053					
4/4/2019				<0.0025				
9/24/2019						<0.0025	<0.0025	<0.0025
9/27/2019	<0.0025	<0.0025			<0.0025			
9/30/2019			0.0075	<0.0025				
Mean	0.002166	0.002335	0.003751	0.0025	0.0009414	0.0025	0.0025	0.0025
Std. Dev.	0.000848	0.0006174	0.00227	0	0.001031	0	0	0
Upper Lim.	0.0025	0.0025	0.005359	0.0025	0.0003275	0.0025	0.0025	0.0025
Lower Lim.	0.0002	0.00019	0.002144	0.0025	0.0001083	0.0025	0.0025	0.0025

Non-Parametric Confidence Interval

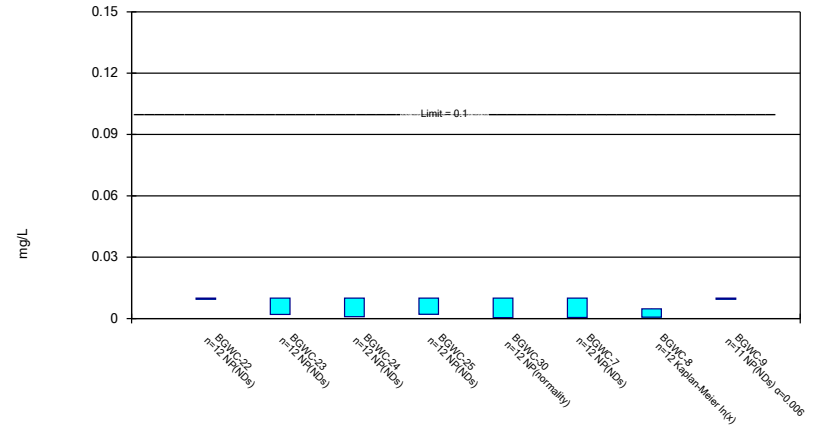
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Chromium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

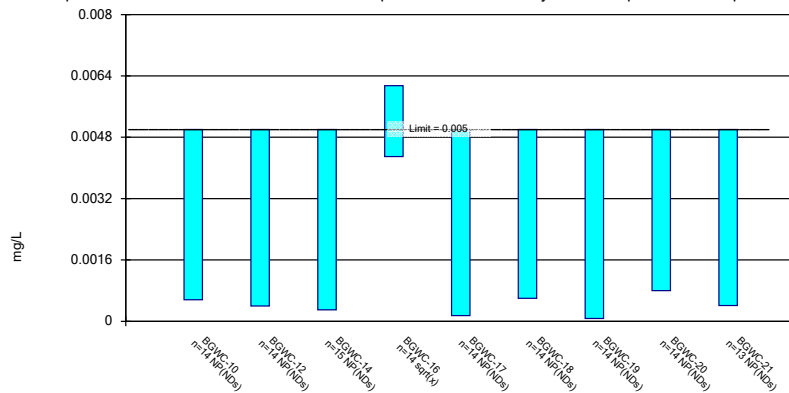
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chromium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

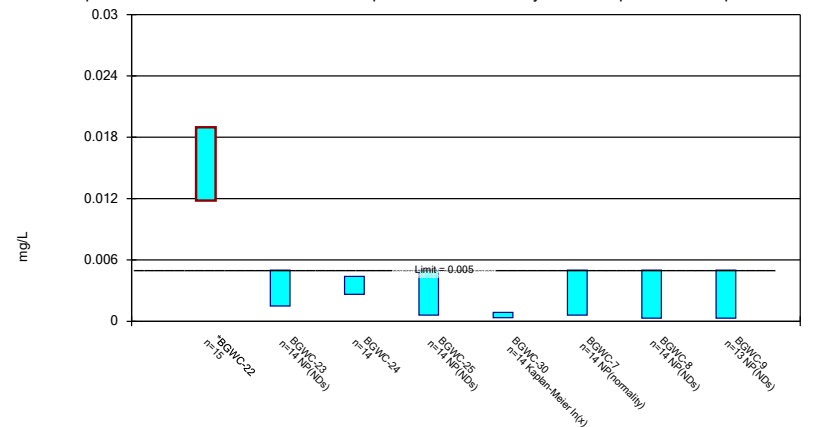
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		<0.01	<0.01				
6/8/2016						<0.01	<0.01	<0.01	<0.01
6/10/2016			<0.01						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		0.0014 (J)	<0.01	<0.01	0.0011 (J)	<0.01		
10/10/2016								<0.01	<0.01
12/5/2016		<0.01							
12/6/2016	<0.01			<0.01	<0.01	<0.01			
12/7/2016							<0.01	<0.01	
12/8/2016			<0.01						<0.01
2/15/2017		<0.01							
2/16/2017	<0.01			<0.01	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			<0.01						
4/18/2017	<0.01	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	0.0003 (J)							
6/6/2017			<0.01						
6/15/2017			<0.01						
7/12/2017	<0.01								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								<0.01	<0.01
7/19/2017			<0.01						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		0.0048 (J)	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		<0.01							
4/2/2019	<0.01			<0.01	0.00044 (J)	<0.01			
4/3/2019							<0.01	0.00088 (J)	<0.01
4/4/2019			0.00057 (J)						
9/25/2019	<0.01	0.00055 (J)	<0.01						
9/26/2019				<0.01	<0.01	<0.01	<0.01	0.0022 (J)	
9/30/2019									<0.01
Mean	0.01	0.008404	0.008613	0.01	0.009203	0.009258	0.01	0.008157	0.01
Std. Dev.	0	0.003727	0.00339	0	0.00276	0.002569	0	0.003441	0
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.01	0.00055	0.0014	0.01	0.00044	0.0011	0.01	0.0022	0.01

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.01
6/7/2016							<0.01	
6/8/2016	<0.01			<0.01		<0.01		
6/9/2016		<0.01	<0.01					
8/10/2016							0.0052 (J)	
8/11/2016						<0.01		<0.01
8/15/2016				<0.01				
8/18/2016	<0.01	<0.01	<0.01					
10/4/2016							0.0015 (J)	
10/5/2016								0.002 (J)
10/6/2016						<0.01		
10/10/2016	<0.01	<0.01	0.0009 (J)	<0.01				
12/2/2016							0.0013 (J)	
12/5/2016								<0.01
12/6/2016						<0.01		
12/7/2016		0.002 (J)	<0.01					
12/8/2016	<0.01			<0.01				
1/23/2017					0.001 (J)			
2/7/2017					<0.01			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	<0.01							
2/20/2017		<0.01	<0.01	<0.01				
3/27/2017					<0.01			
4/14/2017							0.0011 (J)	
4/17/2017					<0.01			<0.01
4/18/2017						<0.01		
4/19/2017		<0.01	<0.01					
4/20/2017	<0.01			<0.01				
5/22/2017					0.0004 (J)			
5/26/2017							0.0008 (J)	<0.01
6/1/2017				<0.01				
6/2/2017						<0.01		
6/5/2017	<0.01	<0.01	<0.01		0.0004 (J)			
7/10/2017							0.0009 (J)	
7/11/2017					0.0012 (J)			<0.01
7/14/2017						<0.01		
7/17/2017		<0.01	<0.01	<0.01				
7/19/2017	<0.01							
8/23/2017					0.0009 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	<0.01	<0.01	<0.01					
2/25/2019							<0.01	
2/28/2019						<0.01		
3/1/2019	<0.01	0.0033 (J)	<0.01	<0.01	<0.01			
4/1/2019							0.00091 (J)	<0.01
4/2/2019					0.00095 (J)	<0.01		
4/3/2019	<0.01	0.00057 (J)	<0.01					
4/4/2019				<0.01				
9/24/2019						0.00055 (J)	0.063	<0.01

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	<0.01	<0.01			0.00056 (J)			
9/30/2019			<0.01	0.0021 (J)				
Mean	0.01	0.007989	0.009242	0.009342	0.004617	0.009212	0.009559	0.009273
Std. Dev.	0	0.003684	0.002627	0.002281	0.004757	0.002728	0.01734	0.002412
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.00473	0.01
Lower Lim.	0.01	0.002	0.0009	0.0021	0.0004	0.00055	0.00071	0.01

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.005	<0.005		0.0037	<0.005				
6/8/2016						0.00071 (J)	<0.005	<0.005	0.00041 (J)
6/10/2016			<0.005						
8/11/2016				0.0039 (J)	<0.005				
8/12/2016		<0.005				0.0006 (J)	<0.005	<0.005	
8/16/2016	<0.005								
8/17/2016			<0.005						
8/18/2016									<0.005
10/6/2016		<0.005							
10/7/2016	<0.005		<0.005	0.0043 (J)	<0.005	0.0005 (J)	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		0.0006 (J)							
12/6/2016	<0.005			0.005 (J)	<0.005	0.0009 (J)			
12/7/2016							<0.005	0.0008 (J)	
12/8/2016			<0.005						0.0006 (J)
2/15/2017		<0.005							
2/16/2017	<0.005			0.0054 (J)	<0.005	<0.005	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	<0.005	<0.005		0.0054 (J)					
4/19/2017					<0.005	<0.005	<0.005	<0.005	<0.005
4/21/2017			<0.005						
5/30/2017				0.0045 (J)	<0.005				
6/1/2017						<0.005	<0.005	<0.005	<0.005
6/2/2017	<0.005	<0.005							
6/6/2017			<0.005						
6/15/2017			0.0003 (J)						
7/12/2017	<0.005								
7/13/2017		0.0003 (J)							
7/14/2017				0.0049 (J)	<0.005	<0.005	<0.005		
7/18/2017								<0.005	0.0004 (J)
7/19/2017			0.0003 (J)						
3/27/2018	<0.005			<0.005	<0.005	<0.005	<0.005		
3/28/2018		<0.005						<0.005	<0.005
3/29/2018			<0.005						
6/12/2018				0.0048 (J)					
6/13/2018								<0.005	
6/14/2018	<0.005	<0.005			<0.005	<0.005			<0.005
6/15/2018			<0.005				<0.005		
10/17/2018		<0.005			<0.005				
10/18/2018	<0.005			0.0047 (J)		<0.005			
10/19/2018			<0.005				<0.005		<0.005
10/22/2018								<0.005	
2/25/2019				0.0071 (J)					
2/27/2019					<0.005	<0.005		<0.005	
2/28/2019	<0.005	<0.005							
3/1/2019							<0.005		
3/6/2019			<0.005						
4/1/2019		0.00034 (J)							
4/2/2019	0.00027 (J)			0.0056 (J)	0.00015 (J)	0.00012 (J)			
4/3/2019							7.2E-05 (J)	0.00024 (J)	0.00064 (J)
4/4/2019			0.00015 (J)						

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	0.00056 (J)	0.0004 (J)	<0.005						
9/26/2019				0.0093	<0.005	<0.005	<0.005	<0.005	
9/30/2019									0.0004 (J)
Mean	0.004345	0.003689	0.00405	0.005257	0.004654	0.003416	0.004648	0.00436	0.003265
Std. Dev.	0.001666	0.002153	0.001967	0.001426	0.001296	0.002211	0.001317	0.001631	0.002285
Upper Lim.	0.005	0.005	0.005	0.006146	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00056	0.0004	0.0003	0.004298	0.00015	0.0006	7.2E-05	0.0008	0.00041

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.005
6/7/2016							0.00013 (J)	
6/8/2016	0.0079			<0.005		0.00081 (J)		
6/9/2016		<0.005	0.0026					
8/10/2016							0.0003 (J)	
8/11/2016						0.0007 (J)		0.0003 (J)
8/15/2016				<0.005				
8/18/2016	0.0109	<0.005	0.0021 (J)					
10/4/2016							<0.005	
10/5/2016								<0.005
10/6/2016						<0.005		
10/10/2016	0.011	<0.005	0.0018 (J)	<0.005				
12/2/2016							<0.005	
12/5/2016								0.0006 (J)
12/6/2016						0.0009 (J)		
12/7/2016		0.0015 (J)	0.0018 (J)					
12/8/2016	0.013			0.0006 (J)				
1/23/2017					0.0012 (J)			
2/7/2017					0.0008 (J)			
2/14/2017							<0.005	
2/15/2017						<0.005		<0.005
2/17/2017	0.0122							
2/20/2017		<0.005	0.0027 (J)	<0.005				
3/27/2017					0.001 (J)			
4/14/2017							<0.005	
4/17/2017					0.0009 (J)			<0.005
4/18/2017						0.0005 (J)		
4/19/2017		<0.005	0.0032 (J)					
4/20/2017	0.0116			<0.005				
5/22/2017					0.0008 (J)			
5/26/2017							<0.005	<0.005
6/1/2017				<0.005				
6/2/2017						0.0006 (J)		
6/5/2017	0.0112	<0.005	0.0034 (J)		0.0008 (J)			
7/10/2017							<0.005	
7/11/2017					0.0008 (J)			<0.005
7/14/2017						0.0006 (J)		
7/17/2017		<0.005	0.0033 (J)	<0.005				
7/19/2017	0.0131							
8/23/2017					0.0006 (J)			
3/26/2018					<0.005		<0.005	
3/27/2018						<0.005		<0.005
3/28/2018				<0.005				
3/29/2018	0.016	<0.005	<0.005					
6/12/2018							<0.005	<0.005
6/13/2018		<0.005	0.0039 (J)			0.00068 (J)		
6/14/2018	0.017			<0.005				
6/15/2018					<0.005			
10/16/2018							<0.005	
10/17/2018								<0.005
10/18/2018						<0.005		
10/22/2018	0.021	<0.005	0.0043 (J)	<0.005	<0.005			

Confidence Interval

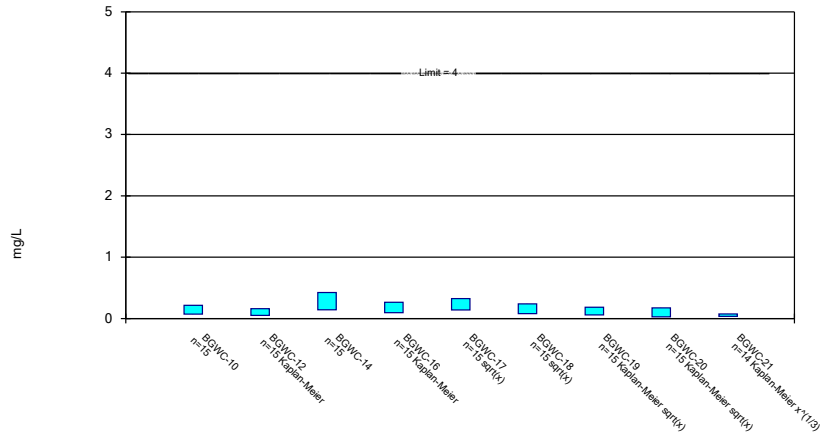
Constituent: Cobalt (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.005	
2/28/2019						0.00067 (J)		
3/1/2019	0.017	<0.005	0.0055 (J)	<0.005	<0.005			
4/1/2019							5.6E-05 (J)	0.00024 (J)
4/2/2019					0.00022 (J)	0.00094 (J)		
4/3/2019	0.019	0.00058 (J)	0.0048 (J)					
4/4/2019				0.00022 (J)				
5/2/2019	0.023 (J)							
9/24/2019						0.00078 (J)	0.0012 (J)	<0.005
9/27/2019	0.027	0.00034 (J)			<0.005			
9/30/2019			0.0048	<0.005				
Mean	0.01539	0.004101	0.003514	0.004344	0.002294	0.001941	0.003692	0.003934
Std. Dev.	0.005287	0.001802	0.001233	0.001668	0.002104	0.002011	0.002161	0.002028
Upper Lim.	0.01898	0.005	0.004388	0.005	0.00087	0.005	0.005	0.005
Lower Lim.	0.01181	0.0015	0.002641	0.0006	0.0003613	0.0006	0.0003	0.0003

Parametric Confidence Interval

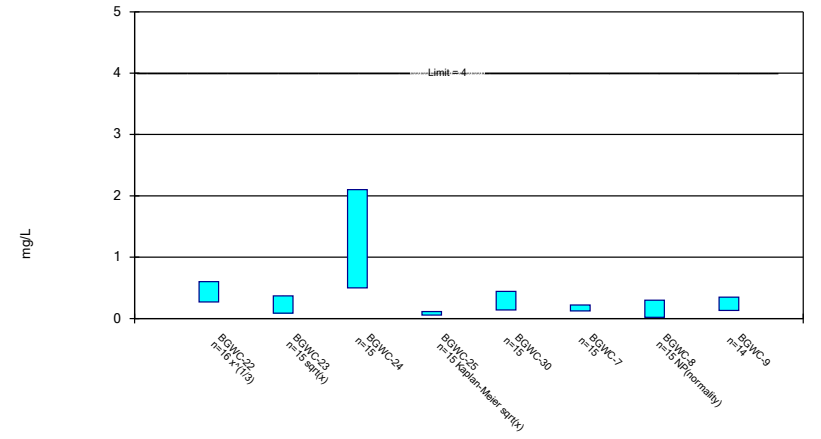
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Fluoride Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

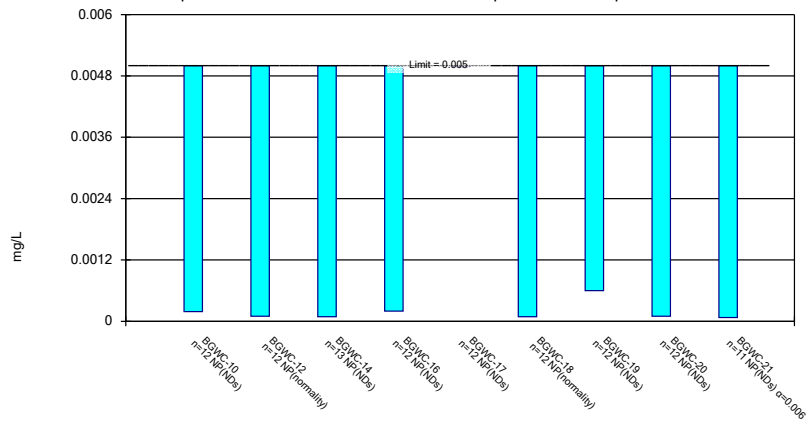
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Fluoride Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

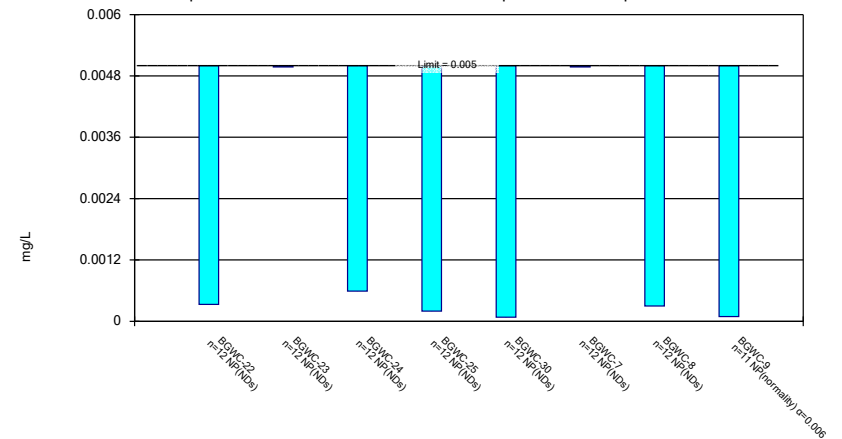
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.09 (J)	<0.3		<0.3	0.15 (J)				
6/8/2016						0.1 (J)	<0.3	0.09 (J)	<0.3
6/10/2016			0.23						
8/11/2016				0.12 (J)	0.3 (J)				
8/12/2016		0.08 (J)				0.39	0.2 (J)	0.04 (J)	
8/16/2016	0.09 (J)								
8/17/2016			0.12 (J)						
8/18/2016									0.09 (J)
10/6/2016		0.06 (J)							
10/7/2016	0.17 (J)		0.13 (J)	0.08 (J)	0.14 (J)	0.16 (J)	0.07 (J)		
10/10/2016								0.06 (J)	0.04 (J)
12/5/2016		0.12 (J)							
12/6/2016	0.16 (J)			0.24 (J)	0.19 (J)	0.32			
12/7/2016							0.09 (J)	0.07 (J)	
12/8/2016			0.31						0.08 (J)
2/15/2017		0.33							
2/16/2017	0.38			0.31	0.51	0.38	0.6		
2/17/2017								0.06 (J)	0.08 (J)
2/21/2017			0.35						
4/18/2017	0.12 (J)	0.006 (J)		0.02 (J)					
4/19/2017					0.18 (J)	0.08 (J)	0.09 (J)	0.005 (J)	0.04 (J)
4/21/2017			0.04 (J)						
5/30/2017				0.51	0.15 (J)				
6/1/2017						0.09 (J)	0.05 (J)	0.65	0.03 (J)
6/2/2017	0.03 (J)	0.04 (J)							
6/6/2017			0.36						
7/12/2017	0.15 (J)								
7/13/2017		0.17 (J)							
7/14/2017				0.14 (J)	0.16 (J)	0.06 (J)	0.08 (J)		
7/18/2017								0.36	0.08 (J)
7/19/2017			0.18 (J)						
10/10/2017		0.08 (J)							
10/11/2017	0.07 (J)			0.29 (J)	0.64	0.14 (J)	0.11 (J)	<0.3	
10/12/2017			0.08 (J)						0.12 (J)
3/27/2018	<0.3			<0.3	0.33	<0.3	<0.3		
3/28/2018		<0.3						<0.3	<0.3
3/29/2018			<0.3						
6/12/2018				0.061 (J)					
6/13/2018								0.038 (J)	
6/14/2018	0.046 (J)	<0.3			0.11 (J)	0.095 (J)			<0.3
6/15/2018			0.41				0.07 (J)		
10/17/2018		<0.3			<0.3				
10/18/2018	<0.3			<0.3		0.054 (J)			
10/19/2018			<0.3				0.17 (J)		<0.3
10/22/2018								<0.3	
2/25/2019				0.13 (J)					
2/27/2019					0.26 (J)	<0.3		0.13 (J)	
2/28/2019	0.14 (J)	0.18 (J)							
3/1/2019							0.14 (J)		
3/6/2019			0.88						
4/1/2019		0.065 (J)							
4/2/2019	0.044 (J)			0.23 (J)	0.14 (J)	0.044 (J)			

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
4/3/2019							0.051 (J)	0.072 (J)	0.032 (J)
4/4/2019			0.44						
9/25/2019	0.075 (J)	0.13 (J)	0.11 (J)						
9/26/2019				<0.3	0.071 (J)	0.052 (J)	<0.3	<0.3	
9/30/2019									0.066 (J)
Mean	0.1443	0.1641	0.2827	0.2221	0.2421	0.171	0.1747	0.185	0.1327
Std. Dev.	0.1051	0.1134	0.2074	0.1289	0.1565	0.1282	0.1488	0.1781	0.1125
Upper Lim.	0.2155	0.16	0.4232	0.2657	0.3247	0.2397	0.1833	0.1729	0.07347
Lower Lim.	0.07312	0.05082	0.1421	0.09608	0.1395	0.08042	0.0578	0.02833	0.03541

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.12 (J)
6/7/2016							<0.3	
6/8/2016	0.43			0.14 (J)		0.19 (J)		
6/9/2016		0.12 (J)	<0.3					
8/10/2016							0.07 (J)	
8/11/2016						0.15 (J)		0.27 (J)
8/15/2016				0.08 (J)				
8/18/2016	0.3 (J)	0.08 (J)	0.24 (J)					
10/4/2016							0.07 (J)	
10/5/2016								0.12 (J)
10/6/2016						0.17 (J)		
10/10/2016	0.32	0.09 (J)	0.3	0.1 (J)				
12/2/2016							0.09 (J)	
12/5/2016								0.26 (J)
12/6/2016						0.22 (J)		
12/7/2016		0.08 (J)	0.05 (J)					
12/8/2016	0.26 (J)			0.06 (J)				
1/23/2017					0.06 (J)			
2/7/2017					0.09 (J)			
2/14/2017							0.02 (J)	
2/15/2017						0.18 (J)		0.46
2/17/2017	0.39							
2/20/2017		0.09 (J)	0.65	0.16 (J)				
3/27/2017					0.09 (J)			
4/14/2017							0.02 (J)	
4/17/2017					0.36			0.14 (J)
4/18/2017						0.11 (J)		
4/19/2017		0.03 (J)	0.21 (J)					
4/20/2017	0.34			0.02 (J)				
5/22/2017					0.05 (J)			
5/26/2017							0.02 (J)	0.13 (J)
6/1/2017				0.04 (J)				
6/2/2017						0.07 (J)		
6/5/2017	0.29 (J)	<0.3	0.05 (J)		0.32			
7/10/2017							0.03 (J)	
7/11/2017					0.13 (J)			0.2 (J)
7/14/2017						0.23 (J)		
7/17/2017		0.09 (J)	2.5	0.07 (J)				
7/19/2017	0.33							
8/23/2017					0.17 (J)			
10/10/2017					0.35		<0.3	0.61
10/11/2017		0.09 (J)	1.8	0.11 (J)		0.1 (J)		
10/12/2017	0.31							
3/26/2018					0.75		<0.3	
3/27/2018								0.36
3/28/2018				<0.3				
3/29/2018	0.58	<0.3	2					
6/12/2018							0.061 (J)	0.13 (J)
6/13/2018		0.71	3.1			0.25 (J)		
6/14/2018	0.15 (J)			<0.3				
6/15/2018					0.51			
10/16/2018							<0.3	

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
10/17/2018								0.13 (J)
10/18/2018						0.047 (J)		
10/22/2018	0.78	0.81	3.1	<0.3	0.44			
2/25/2019							<0.3	
2/28/2019						0.23 (J)		
3/1/2019	0.34	0.38	1	0.12 (J)	0.24 (J)			
4/1/2019							<0.3	0.33
4/2/2019					0.68	0.22 (J)		
4/3/2019	0.23 (J)	0.1 (J)	3					
4/4/2019				<0.3				
5/2/2019	1.4							
9/24/2019						0.12 (J)	<0.3	0.096 (J)
9/27/2019	1	0.54			0.13 (J)			
9/30/2019			1.2	0.065 (J)				
Mean	0.4656	0.254	1.3	0.1443	0.2913	0.1725	0.1654	0.2397
Std. Dev.	0.3295	0.2506	1.18	0.1036	0.224	0.07193	0.1318	0.1536
Upper Lim.	0.601	0.3697	2.1	0.1133	0.4431	0.2212	0.3	0.3485
Lower Lim.	0.2697	0.08844	0.5001	0.05639	0.1395	0.1237	0.02	0.1309

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.005	<0.005		<0.005	<0.005				
6/8/2016						<0.005	<0.005	<0.005	<0.005
6/10/2016			<0.005						
8/11/2016				<0.005	<0.005				
8/12/2016		0.0001 (J)				0.0001 (J)	<0.005	<0.005	
8/16/2016	<0.005								
8/17/2016			<0.005						
8/18/2016									<0.005
10/6/2016		0.0002 (J)							
10/7/2016	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		0.0003 (J)							
12/6/2016	<0.005			<0.005	<0.005	0.0001 (J)			
12/7/2016							<0.005	<0.005	
12/8/2016			<0.005						<0.005
2/15/2017		<0.005							
2/16/2017	<0.005			<0.005	<0.005	0.0002 (J)	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	<0.005	<0.005		<0.005					
4/19/2017					<0.005	0.0001 (J)	0.0006 (J)	<0.005	<0.005
4/21/2017			<0.005						
5/30/2017				0.0001 (J)	<0.005				
6/1/2017						9E-05 (J)	<0.005	0.0001 (J)	<0.005
6/2/2017	<0.005	0.0001 (J)							
6/6/2017			<0.005						
6/15/2017			9E-05 (J)						
7/12/2017	<0.005								
7/13/2017		0.0001 (J)							
7/14/2017				0.0002 (J)	<0.005	0.0001 (J)	<0.005		
7/18/2017								<0.005	<0.005
7/19/2017			<0.005						
3/27/2018	<0.005			<0.005	<0.005	<0.005	<0.005		
3/28/2018		<0.005						<0.005	<0.005
3/29/2018			<0.005						
2/25/2019				<0.005					
2/27/2019					<0.005	<0.005		<0.005	
2/28/2019	<0.005	<0.005							
3/1/2019							<0.005		
3/6/2019			<0.005						
4/1/2019		<0.005							
4/2/2019	<0.005			<0.005	<0.005	8.1E-05 (J)			
4/3/2019							<0.005	<0.005	6.8E-05 (J)
4/4/2019			<0.005						
9/25/2019	0.00019 (J)	0.00063 (J)	<0.005						
9/26/2019				0.00034 (J)	<0.005	<0.005	<0.005	<0.005	
9/30/2019									7.3E-05 (J)
Mean	0.004599	0.002619	0.004622	0.003803	0.005	0.002148	0.004633	0.004592	0.004104
Std. Dev.	0.001389	0.002491	0.001362	0.002165	0	0.002518	0.00127	0.001415	0.001994
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00019	0.0001	9E-05	0.0002	0.005	9E-05	0.0006	0.0001	7.3E-05

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.005
6/7/2016							<0.005	
6/8/2016	<0.005			<0.005		<0.005		
6/9/2016		<0.005	0.00059 (J)					
8/10/2016							<0.005	
8/11/2016						<0.005		<0.005
8/15/2016				0.0005 (J)				
8/18/2016	<0.005	<0.005	<0.005					
10/4/2016							<0.005	
10/5/2016								0.0005 (J)
10/6/2016						<0.005		
10/10/2016	<0.005	<0.005	<0.005	<0.005				
12/2/2016							<0.005	
12/5/2016								0.0002 (J)
12/6/2016						<0.005		
12/7/2016		<0.005	<0.005					
12/8/2016	<0.005			0.0006 (J)				
1/23/2017					0.0003 (J)			
2/7/2017					0.0002 (J)			
2/14/2017							<0.005	
2/15/2017						<0.005		<0.005
2/17/2017	<0.005							
2/20/2017		<0.005	<0.005	0.0004 (J)				
3/27/2017					8E-05 (J)			
4/14/2017							<0.005	
4/17/2017					<0.005			0.0001 (J)
4/18/2017						<0.005		
4/19/2017		<0.005	<0.005					
4/20/2017	<0.005			0.0002 (J)				
5/22/2017					<0.005			
5/26/2017							0.0003 (J)	0.0001 (J)
6/1/2017				7E-05 (J)				
6/2/2017						<0.005		
6/5/2017	<0.005	<0.005	7E-05 (J)		<0.005			
7/10/2017							<0.005	
7/11/2017					8E-05 (J)			<0.005
7/14/2017						<0.005		
7/17/2017		<0.005	<0.005	<0.005				
7/19/2017	<0.005							
8/23/2017					<0.005			
3/26/2018					<0.005		<0.005	
3/27/2018						<0.005		<0.005
3/28/2018				<0.005				
3/29/2018	<0.005	<0.005	<0.005					
2/25/2019							<0.005	
2/28/2019						<0.005		
3/1/2019	0.00033 (J)	<0.005	<0.005	<0.005	<0.005			
4/1/2019							<0.005	9.2E-05 (J)
4/2/2019					<0.005	<0.005		
4/3/2019	<0.005	<0.005	<0.005					
4/4/2019				<0.005				
9/24/2019						<0.005	<0.005	5.6E-05 (J)

Confidence Interval

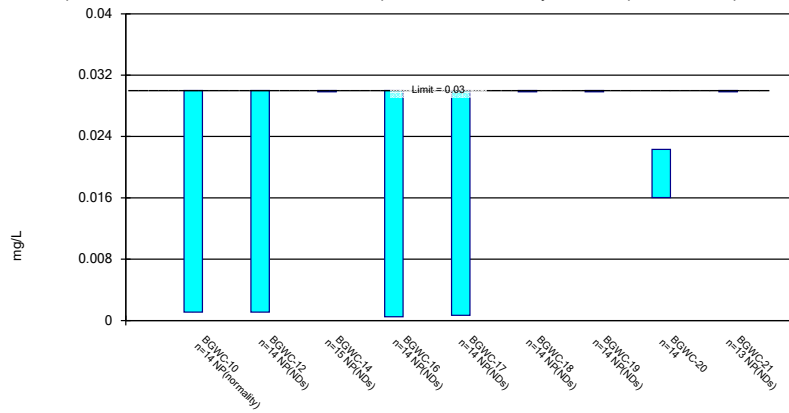
Constituent: Lead (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	5.4E-05 (J)	<0.005			0.00018 (J)			
9/30/2019			<0.005	<0.005				
Mean	0.004199	0.005	0.004222	0.003064	0.002987	0.005	0.004608	0.002368
Std. Dev.	0.001872	0	0.001821	0.002396	0.002489	0	0.001357	0.002523
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00033	0.005	0.00059	0.0002	8E-05	0.005	0.0003	9.2E-05

Parametric and Non-Parametric (NP) Confidence Interval

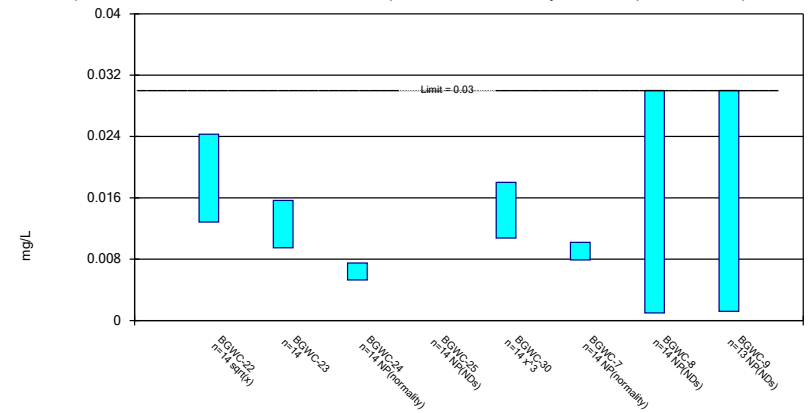
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lithium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

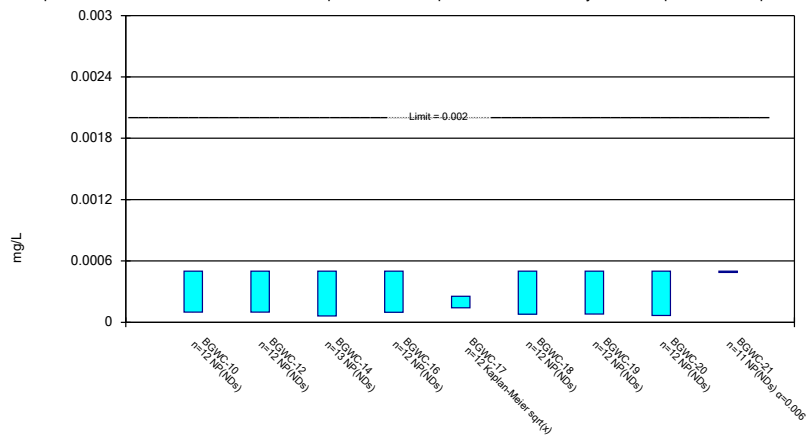
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lithium Analysis Run 12/11/2019 3:27 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

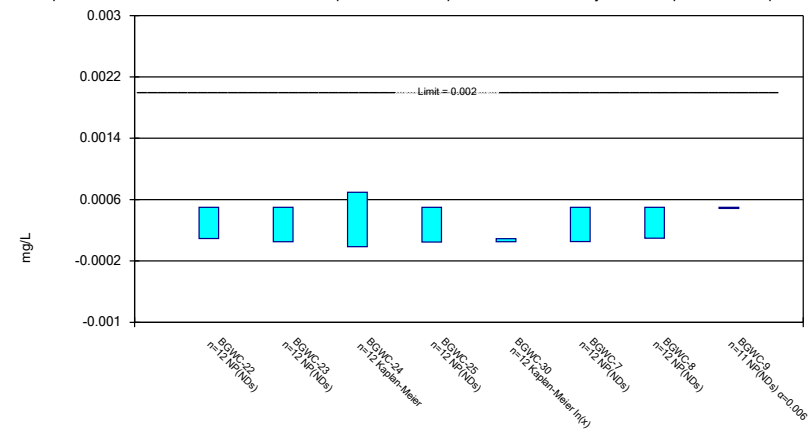
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Mercury Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Mercury Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0065	<0.03		<0.03	<0.03				
6/8/2016						<0.03	<0.03	0.016	<0.03
6/10/2016			<0.03						
8/11/2016				<0.03	<0.03				
8/12/2016		<0.03				<0.03	<0.03	0.0202 (J)	
8/16/2016	<0.03								
8/17/2016			<0.03						
8/18/2016									<0.03
10/6/2016		<0.03							
10/7/2016	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03		
10/10/2016								0.0194 (J)	<0.03
12/5/2016		<0.03							
12/6/2016	<0.03			<0.03	<0.03	<0.03			
12/7/2016							<0.03	0.0265 (J)	
12/8/2016			<0.03						<0.03
2/15/2017		<0.03							
2/16/2017	<0.03			<0.03	<0.03	<0.03	<0.03		
2/17/2017								0.0253 (J)	<0.03
2/21/2017			<0.03						
4/18/2017	0.0011 (J)	<0.03		<0.03					
4/19/2017					<0.03	<0.03	<0.03	0.0233 (J)	<0.03
4/21/2017			<0.03						
5/30/2017				<0.03	<0.03				
6/1/2017						<0.03	<0.03	0.023 (J)	<0.03
6/2/2017	0.0011 (J)	<0.03							
6/6/2017			<0.03						
6/15/2017			<0.03						
7/12/2017	<0.03								
7/13/2017		<0.03							
7/14/2017				<0.03	<0.03	<0.03	<0.03		
7/18/2017								0.0207 (J)	<0.03
7/19/2017			<0.03						
3/27/2018	0.0025 (J)			<0.03	<0.03	<0.03	<0.03		
3/28/2018		<0.03						0.013 (J)	<0.03
3/29/2018			<0.03						
6/12/2018				<0.03					
6/13/2018								0.02 (J)	
6/14/2018	0.0011 (J)	<0.03			<0.03	<0.03			<0.03
6/15/2018			<0.03				<0.03		
10/17/2018		<0.03			<0.03				
10/18/2018	0.0016 (J)			<0.03		<0.03			
10/19/2018			<0.03				<0.03		<0.03
10/22/2018								0.016 (J)	
2/25/2019				<0.03					
2/27/2019					<0.03	<0.03		0.015 (J)	
2/28/2019	0.0017 (J)	0.0011 (J)							
3/1/2019							<0.03		
3/6/2019			<0.03						
4/1/2019		0.00078 (J)							
4/2/2019	0.0012 (J)			0.00049 (J)	0.00069 (J)	<0.03			
4/3/2019							<0.03	0.012 (J)	<0.03
4/4/2019			<0.03						

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	<0.03	0.001 (J)	<0.03						
9/26/2019				<0.03	<0.03	<0.03	<0.03	0.018	
9/30/2019									<0.03
Mean	0.01406	0.02378	0.03	0.02789	0.02791	0.03	0.03	0.01917	0.03
Std. Dev.	0.01439	0.01237	0	0.007887	0.007833	0	0	0.004433	0
Upper Lim.	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02231	0.03
Lower Lim.	0.0011	0.0011	0.03	0.00049	0.00069	0.03	0.03	0.01603	0.03

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.03
6/7/2016							<0.03	
6/8/2016	0.012			<0.03		0.0079		
6/9/2016		0.0074	0.0057					
8/10/2016							<0.03	
8/11/2016						0.0093 (J)		<0.03
8/15/2016				<0.03				
8/18/2016	0.0118 (J)	0.0078 (J)	0.0061 (J)					
10/4/2016							<0.03	
10/5/2016								<0.03
10/6/2016						0.0102 (J)		
10/10/2016	0.0137 (J)	0.0093 (J)	0.006 (J)	<0.03				
12/2/2016							<0.03	
12/5/2016								<0.03
12/6/2016						0.0094 (J)		
12/7/2016		0.0117 (J)	0.0066 (J)					
12/8/2016	0.0154 (J)			<0.03				
1/23/2017					0.0171 (J)			
2/7/2017					0.0196 (J)			
2/14/2017							<0.03	
2/15/2017						<0.03		<0.03
2/17/2017	0.0125 (J)							
2/20/2017		0.011 (J)	0.0053 (J)	<0.03				
3/27/2017					0.0192 (J)			
4/14/2017							<0.03	
4/17/2017					0.0169 (J)			0.0013 (J)
4/18/2017						0.0086 (J)		
4/19/2017		0.0105 (J)	0.0055 (J)					
4/20/2017	0.012 (J)			<0.03				
5/22/2017					0.0167 (J)			
5/26/2017							<0.03	0.0013 (J)
6/1/2017				<0.03				
6/2/2017						0.0102 (J)		
6/5/2017	0.0114 (J)	0.0108 (J)	0.0068 (J)		0.0177 (J)			
7/10/2017							<0.03	
7/11/2017					0.0203 (J)			<0.03
7/14/2017						0.0092 (J)		
7/17/2017		0.0095 (J)	<0.03	<0.03				
7/19/2017	0.0126 (J)							
8/23/2017					0.0182 (J)			
3/26/2018					0.0063 (J)		<0.03	
3/27/2018						0.0087 (J)		0.0014 (J)
3/28/2018				<0.03				
3/29/2018	0.021 (J)	0.014 (J)	0.0053 (J)					
6/12/2018							<0.03	0.0012 (J)
6/13/2018		0.014 (J)	0.0067 (J)			0.0084 (J)		
6/14/2018	0.024 (J)			<0.03				
6/15/2018					0.0049 (J)			
10/16/2018							0.001 (J)	
10/17/2018								<0.03
10/18/2018						0.0083 (J)		
10/22/2018	0.034 (J)	0.016 (J)	0.0075 (J)	<0.03	0.005 (J)			

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.03	
2/28/2019						0.0086 (J)		
3/1/2019	0.022 (J)	0.017 (J)	0.0068 (J)	<0.03	0.0044 (J)			
4/1/2019							<0.03	0.0012 (J)
4/2/2019					0.0041 (J)	0.0073 (J)		
4/3/2019	0.024 (J)	0.013 (J)	0.0048 (J)					
4/4/2019				<0.03				
9/24/2019						0.0083 (J)	<0.03	0.0011 (J)
9/27/2019	0.039	0.024			0.0012 (J)			
9/30/2019			0.0077 (J)	<0.03				
Mean	0.01896	0.01257	0.007914	0.03	0.01226	0.01031	0.02793	0.01673
Std. Dev.	0.008857	0.004355	0.006414	0	0.007282	0.005723	0.007751	0.01492
Upper Lim.	0.02429	0.01566	0.0075	0.03	0.01802	0.0102	0.03	0.03
Lower Lim.	0.01285	0.009487	0.0053	0.03	0.01075	0.0079	0.001	0.0012

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0001 (J)	0.0001 (J)		9.8E-05 (J)	0.00017 (J)				
6/8/2016						<0.0005	<0.0005	<0.0005	<0.0005
6/10/2016			<0.0005						
8/11/2016				<0.0005	0.00019 (J)				
8/12/2016		<0.0005				<0.0005	<0.0005	<0.0005	
8/16/2016	<0.0005								
8/17/2016			<0.0005						
8/18/2016									<0.0005
10/6/2016		<0.0005							
10/7/2016	<0.0005		<0.0005	<0.0005	0.00014 (J)	<0.0005	<0.0005		
10/10/2016								<0.0005	<0.0005
12/5/2016		<0.0005							
12/6/2016	<0.0005			<0.0005	0.00016 (J)	<0.0005			
12/7/2016							8E-05 (J)	<0.0005	
12/8/2016			<0.0005						<0.0005
2/15/2017		<0.0005							
2/16/2017	<0.0005			<0.0005	0.00017 (J)	<0.0005	<0.0005		
2/17/2017								<0.0005	<0.0005
2/21/2017			<0.0005						
4/18/2017	<0.0005	<0.0005		<0.0005					
4/19/2017					0.00014 (J)	<0.0005	<0.0005	<0.0005	<0.0005
4/21/2017			<0.0005						
5/30/2017				<0.0005	0.00023 (J)				
6/1/2017						<0.0005	<0.0005	<0.0005	<0.0005
6/2/2017	<0.0005	<0.0005							
6/6/2017			<0.0005						
6/15/2017			6.2E-05 (J)						
7/12/2017	<0.0005								
7/13/2017		<0.0005							
7/14/2017				<0.0005	0.00016 (J)	<0.0005	<0.0005		
7/18/2017								<0.0005	<0.0005
7/19/2017			<0.0005						
3/27/2018	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005		
3/28/2018		<0.0005						<0.0005	<0.0005
3/29/2018			<0.0005						
2/25/2019				<0.0005					
2/27/2019					0.00029 (J)	7.9E-05 (J)		6.6E-05 (J)	
2/28/2019	4.8E-05 (J)	5.8E-05 (J)							
3/1/2019							5E-05 (J)		
3/6/2019			<0.0005						
4/1/2019		<0.0005							
4/2/2019	<0.0005			<0.0005	0.0004	<0.0005			
4/3/2019							<0.0005	<0.0005	<0.0005
4/4/2019			<0.0005						
9/25/2019	<0.0005	<0.0005	<0.0005						
9/26/2019				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/30/2019									<0.0005
Mean	0.000429	0.0004298	0.0004663	0.0004665	0.0002542	0.0004649	0.0004275	0.0004638	0.0005
Std. Dev.	0.0001662	0.0001641	0.0001215	0.000116	0.0001369	0.0001215	0.0001694	0.0001253	0
Upper Lim.	0.0005	0.0005	0.0005	0.0005	0.0002546	0.0005	0.0005	0.0005	0.0005
Lower Lim.	0.0001	0.0001	6.2E-05	9.8E-05	0.0001412	7.9E-05	8E-05	6.6E-05	0.0005

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								8E-05 (J)
6/7/2016							9.7E-05 (J)	
6/8/2016	9.2E-05 (J)			<0.0005		<0.0005		
6/9/2016		<0.0005	<0.0005					
8/10/2016							<0.0005	
8/11/2016						<0.0005		<0.0005
8/15/2016				<0.0005				
8/18/2016	<0.0005	<0.0005	<0.0005					
10/4/2016							<0.0005	
10/5/2016								<0.0005
10/6/2016						<0.0005		
10/10/2016	<0.0005	<0.0005	4E-05 (J)	<0.0005				
12/2/2016							<0.0005	
12/5/2016								<0.0005
12/6/2016						<0.0005		
12/7/2016		5E-05 (J)	7E-05 (J)					
12/8/2016	<0.0005			<0.0005				
1/23/2017					8E-05 (J)			
2/7/2017					0.00011 (J)			
2/14/2017							<0.0005	
2/15/2017						<0.0005		<0.0005
2/17/2017	<0.0005							
2/20/2017		<0.0005	5E-05 (J)	<0.0005				
3/27/2017					8E-05 (J)			
4/14/2017							<0.0005	
4/17/2017					4E-05 (J)			<0.0005
4/18/2017						<0.0005		
4/19/2017		<0.0005	0.00016 (J)					
4/20/2017	<0.0005			<0.0005				
5/22/2017					<0.0005			
5/26/2017							<0.0005	<0.0005
6/1/2017				<0.0005				
6/2/2017						<0.0005		
6/5/2017	<0.0005	<0.0005	0.00013 (J)		6E-05 (J)			
7/10/2017							<0.0005	
7/11/2017					9.1E-05 (J)			<0.0005
7/14/2017						<0.0005		
7/17/2017		<0.0005	0.00013 (J)	<0.0005				
7/19/2017	<0.0005							
8/23/2017					5E-05 (J)			
3/26/2018					<0.0005		<0.0005	
3/27/2018						<0.0005		<0.0005
3/28/2018				<0.0005				
3/29/2018	<0.0005	<0.0005	<0.0005					
2/25/2019							<0.0005	
2/28/2019						5.3E-05 (J)		
3/1/2019	4.2E-05 (J)	4.4E-05 (J)	0.00093	4.7E-05 (J)	0.0001 (J)			
4/1/2019							<0.0005	<0.0005
4/2/2019					<0.0005	<0.0005		
4/3/2019	<0.0005	<0.0005	0.0013					
4/4/2019				<0.0005				
9/24/2019						<0.0005	<0.0005	<0.0005

Confidence Interval

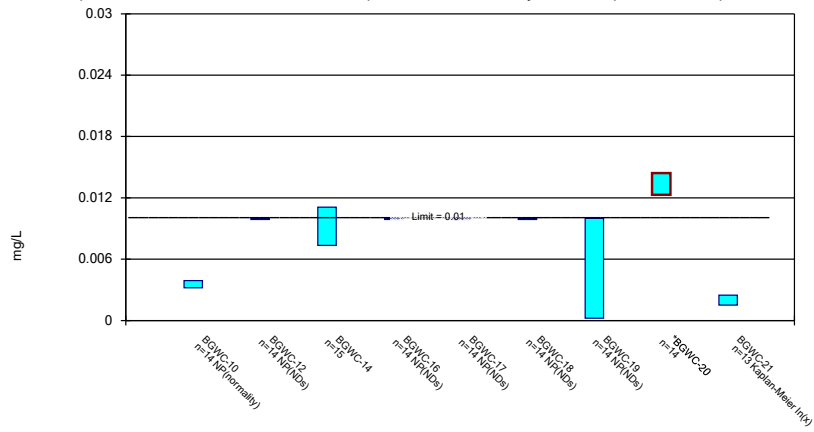
Constituent: Mercury (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	<0.0005	<0.0005			<0.0005			
9/30/2019			0.0011	<0.0005				
Mean	0.0004278	0.0004245	0.0004508	0.0004623	0.0002176	0.0004628	0.0004664	0.0004618
Std. Dev.	0.0001689	0.0001763	0.0004415	0.0001308	0.0002095	0.000129	0.0001163	0.0001266
Upper Lim.	0.0005	0.0005	0.0006954	0.0005	9.032E-05	0.0005	0.0005	0.0005
Lower Lim.	9.2E-05	5E-05	-1.456E-05	4.7E-05	5.166E-05	5.3E-05	9.7E-05	0.0005

Parametric and Non-Parametric (NP) Confidence Interval

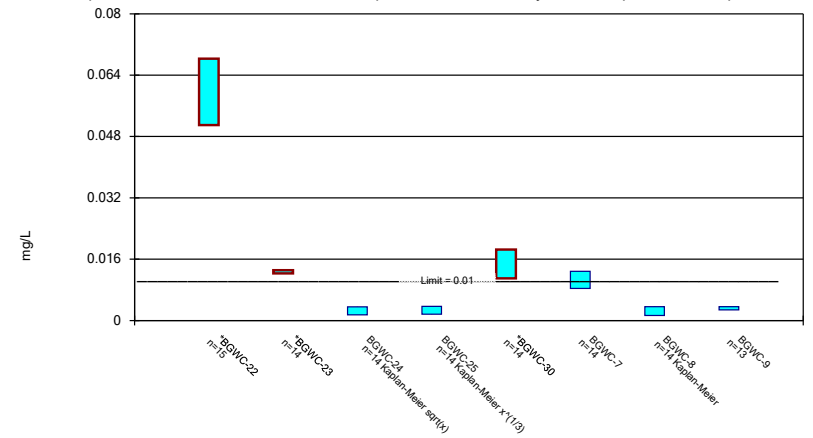
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Molybdenum Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

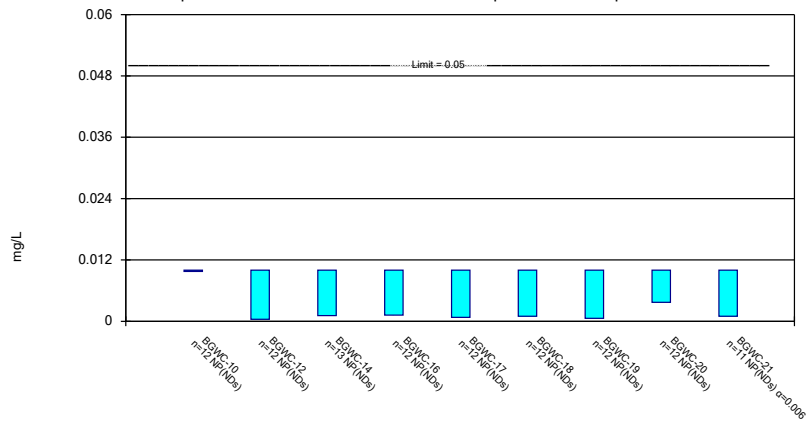
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Molybdenum Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

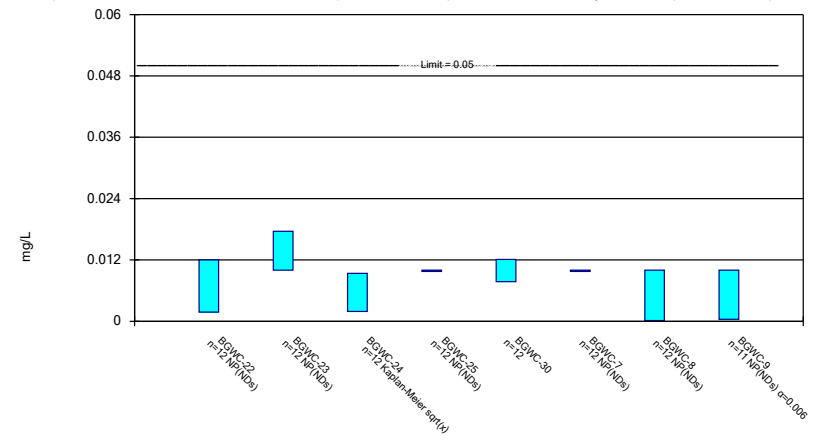
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Selenium Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Selenium Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0067 (J)	<0.01		<0.01	<0.01				
6/8/2016						<0.01	<0.01	0.011 (J)	0.0027 (J)
6/10/2016			0.014 (J)						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	0.0127	
8/16/2016	0.0032 (J)								
8/17/2016			0.0085 (J)						
8/18/2016									0.0023 (J)
10/6/2016		<0.01							
10/7/2016	0.0032 (J)		0.0072 (J)	<0.01	<0.01	<0.01	<0.01		
10/10/2016								0.0136	0.0025 (J)
12/5/2016		<0.01							
12/6/2016	0.0049 (J)			<0.01	<0.01	<0.01			
12/7/2016							<0.01	0.0139	
12/8/2016			0.0082 (J)						<0.01
2/15/2017		<0.01							
2/16/2017	0.0039 (J)			<0.01	<0.01	<0.01	<0.01		
2/17/2017								0.0148	<0.01
2/21/2017			0.0076 (J)						
4/18/2017	0.0032 (J)	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	0.012	0.0014 (J)
4/21/2017			0.0052 (J)						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	0.0125	0.0012 (J)
6/2/2017	0.0035 (J)	<0.01							
6/6/2017			0.0079 (J)						
6/15/2017			0.0052 (J)						
7/12/2017	0.0037 (J)								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								0.0155	0.0013 (J)
7/19/2017			0.0073 (J)						
3/27/2018	0.0032 (J)			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						0.012	<0.01
3/29/2018			0.012						
6/12/2018				<0.01					
6/13/2018								0.016	
6/14/2018	0.0033 (J)	<0.01			<0.01	<0.01			<0.01
6/15/2018			0.012				<0.01		
10/17/2018		<0.01			<0.01				
10/18/2018	0.0034 (J)			<0.01		<0.01			
10/19/2018			0.0094 (J)				<0.01		<0.01
10/22/2018								0.013	
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		0.013	
2/28/2019	0.0035 (J)	<0.01							
3/1/2019							<0.01		
3/6/2019			0.013						
4/1/2019		<0.01							
4/2/2019	0.0032 (J)			<0.01	<0.01	<0.01			
4/3/2019							0.00023 (J)	0.012	0.0019 (J)
4/4/2019			0.0088 (J)						

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	0.0035 (J)	<0.01	0.012						
9/26/2019				<0.01	<0.01	<0.01	<0.01	0.015	
9/30/2019									0.003 (J)
Mean	0.003743	0.01	0.00922	0.01	0.01	0.01	0.009302	0.01336	0.0051
Std. Dev.	0.0009637	0	0.002759	0	0	0	0.002611	0.001499	0.004066
Upper Lim.	0.0039	0.01	0.01109	0.01	0.01	0.01	0.01	0.01442	0.002475
Lower Lim.	0.0032	0.01	0.007351	0.01	0.01	0.01	0.00023	0.0123	0.001507

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.0028 (J)
6/7/2016							0.00063 (J)	
6/8/2016	0.07			0.0064 (J)		0.0088 (J)		
6/9/2016		0.013 (J)	0.0024 (J)					
8/10/2016							0.0039 (J)	
8/11/2016						0.01		0.003 (J)
8/15/2016				0.0039 (J)				
8/18/2016	0.0758	0.0136	0.0034 (J)					
10/4/2016							0.0052 (J)	
10/5/2016								0.0032 (J)
10/6/2016						0.0117		
10/10/2016	0.0712	0.0134	0.0047 (J)	0.0029 (J)				
12/2/2016							<0.01	
12/5/2016								0.0033 (J)
12/6/2016						0.0102		
12/7/2016		0.0128	0.0066 (J)					
12/8/2016	0.0682			<0.01				
1/23/2017					0.0125			
2/7/2017					0.0163			
2/14/2017							0.0044 (J)	
2/15/2017						0.0018 (J)		0.0027 (J)
2/17/2017	0.066							
2/20/2017		0.0122	0.0026 (J)	0.0024 (J)				
3/27/2017					0.0157			
4/14/2017							0.0013 (J)	
4/17/2017					0.0178			0.0025 (J)
4/18/2017						0.0103		
4/19/2017		0.0124	0.002 (J)					
4/20/2017	0.0662			0.0019 (J)				
5/22/2017					0.0208			
5/26/2017							0.0024 (J)	0.0029 (J)
6/1/2017				0.0026 (J)				
6/2/2017						0.0129		
6/5/2017	0.071	0.0115	0.0015 (J)		0.0191			
7/10/2017							0.0013 (J)	
7/11/2017					0.0218			0.0029 (J)
7/14/2017						0.0129		
7/17/2017		0.0131	0.0013 (J)	0.0024 (J)				
7/19/2017	0.0703							
8/23/2017					0.0218			
3/26/2018					0.014		<0.01	
3/27/2018						0.01		0.0031 (J)
3/28/2018				<0.01				
3/29/2018	0.056	0.013	0.0027 (J)					
6/12/2018							0.0026 (J)	0.0043 (J)
6/13/2018		0.013	<0.01			0.013		
6/14/2018	0.059			<0.01				
6/15/2018					0.012			
10/16/2018							0.0041 (J)	
10/17/2018								0.0038 (J)
10/18/2018						0.01 (J)		
10/22/2018	0.055	0.013	<0.01	<0.01	0.01			

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.01	
2/28/2019						0.016		
3/1/2019	0.039	0.013	<0.01	<0.01	0.011			
4/1/2019							0.00054 (J)	0.0027 (J)
4/2/2019					0.01	0.011		
4/3/2019	0.039	0.012	0.00095 (J)					
4/4/2019				0.00096 (J)				
5/2/2019	0.043							
9/24/2019						0.01 (J)	0.0016 (J)	0.0041 (J)
9/27/2019	0.045	0.012			0.0036 (J)			
9/30/2019			0.00099 (J)	<0.01				
Mean	0.05965	0.01271	0.004224	0.005961	0.01474	0.01061	0.004141	0.003177
Std. Dev.	0.01276	0.0005998	0.003475	0.003822	0.005293	0.003153	0.003481	0.00056
Upper Lim.	0.06829	0.01314	0.00358	0.003693	0.01849	0.01285	0.003622	0.003593
Lower Lim.	0.051	0.01229	0.001497	0.001649	0.01099	0.008381	0.001334	0.002761

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		<0.01	0.0004 (J)				
6/8/2016						<0.01	0.00043 (J)	<0.01	<0.01
6/10/2016			<0.01						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		
10/10/2016								<0.01	0.001 (J)
12/5/2016		<0.01							
12/6/2016	<0.01			<0.01	<0.01	<0.01			
12/7/2016							<0.01	0.0037 (J)	
12/8/2016			<0.01						<0.01
2/15/2017		<0.01							
2/16/2017	<0.01			0.0012 (J)	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			0.0011 (J)						
4/18/2017	<0.01	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	<0.01							
6/6/2017			<0.01						
6/15/2017			<0.01						
7/12/2017	<0.01								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								<0.01	<0.01
7/19/2017			<0.01						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		<0.01	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		0.0004 (J)							
4/2/2019	<0.01			0.0006 (J)	0.00077 (J)	0.001 (J)			
4/3/2019							0.00058 (J)	<0.01	0.00012 (J)
4/4/2019			0.00014 (J)						
9/25/2019	<0.01	<0.01	<0.01						
9/26/2019				<0.01	<0.01	<0.01	<0.01	<0.01	
9/30/2019									<0.01
Mean	0.01	0.0092	0.008557	0.008483	0.008431	0.00925	0.008417	0.009475	0.008284
Std. Dev.	0	0.002771	0.003528	0.003544	0.003666	0.002598	0.003696	0.001819	0.003824
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.01	0.0004	0.0011	0.0012	0.00077	0.001	0.00058	0.0037	0.001

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.00031 (J)
6/7/2016							4.8E-05 (J)	
6/8/2016	<0.01			<0.01		<0.01		
6/9/2016		<0.01	0.00099 (J)					
8/10/2016							<0.01	
8/11/2016						<0.01		0.001 (J)
8/15/2016				<0.01				
8/18/2016	<0.01	<0.01	0.0023 (J)					
10/4/2016							<0.01	
10/5/2016								0.0017 (J)
10/6/2016						<0.01		
10/10/2016	<0.01	<0.01	0.004 (J)	<0.01				
12/2/2016							<0.01	
12/5/2016								<0.01
12/6/2016						<0.01		
12/7/2016		0.0176	0.0302					
12/8/2016	0.012			<0.01				
1/23/2017					0.015			
2/7/2017					0.0114			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	<0.01							
2/20/2017		<0.01	0.0044 (J)	<0.01				
3/27/2017					0.0092 (J)			
4/14/2017							<0.01	
4/17/2017					0.0082 (J)			<0.01
4/18/2017						<0.01		
4/19/2017		<0.01	0.0046 (J)					
4/20/2017	<0.01			<0.01				
5/22/2017					0.0094 (J)			
5/26/2017							<0.01	0.0014 (J)
6/1/2017				<0.01				
6/2/2017						<0.01		
6/5/2017	0.0018 (J)	<0.01	0.0033 (J)		0.0118			
7/10/2017							<0.01	
7/11/2017					0.012			<0.01
7/14/2017						<0.01		
7/17/2017		<0.01	0.0052 (J)	<0.01				
7/19/2017	<0.01							
8/23/2017					0.0097 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	<0.01	<0.01	<0.01					
2/25/2019							<0.01	
2/28/2019						<0.01		
3/1/2019	<0.01	<0.01	<0.01	<0.01	0.01 (J)			
4/1/2019							0.00015 (J)	0.0004 (J)
4/2/2019					0.0092 (J)	<0.01		
4/3/2019	<0.01	<0.01	0.0038 (J)					
4/4/2019				<0.01				
9/24/2019						<0.01	<0.01	<0.01

Confidence Interval

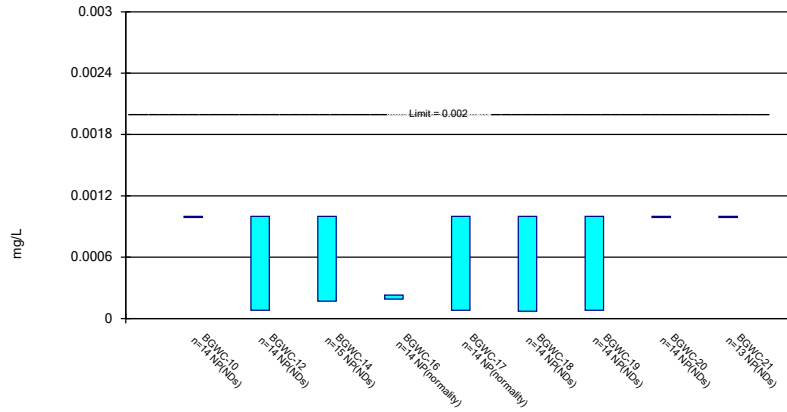
Constituent: Selenium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	<0.01	<0.01			0.0033 (J)			
9/30/2019			0.0065 (J)	<0.01				
Mean	0.009483	0.01063	0.007107	0.01	0.009933	0.01	0.00835	0.005892
Std. Dev.	0.002487	0.002194	0.007765	0	0.002764	0	0.003854	0.004736
Upper Lim.	0.012	0.0176	0.00938	0.01	0.0121	0.01	0.01	0.01
Lower Lim.	0.0018	0.01	0.001925	0.01	0.007765	0.01	0.00015	0.0004

Non-Parametric Confidence Interval

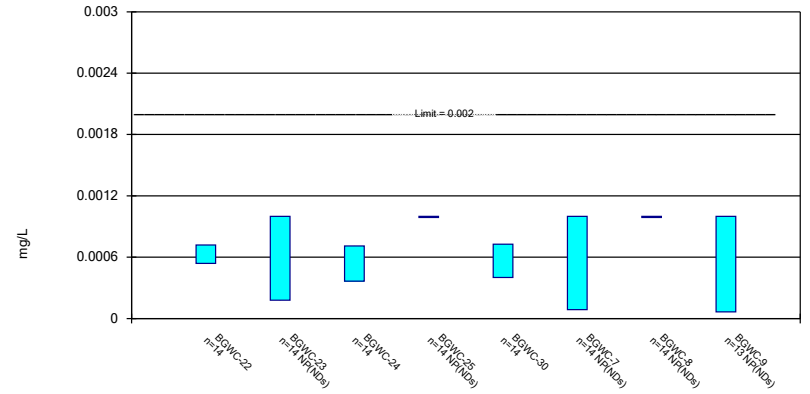
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

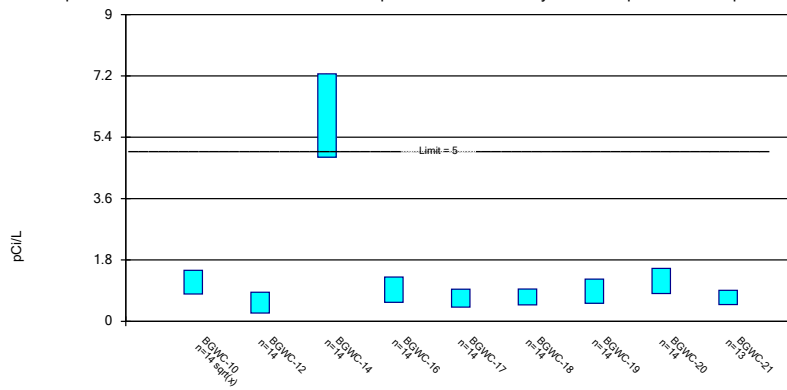
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Thallium Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

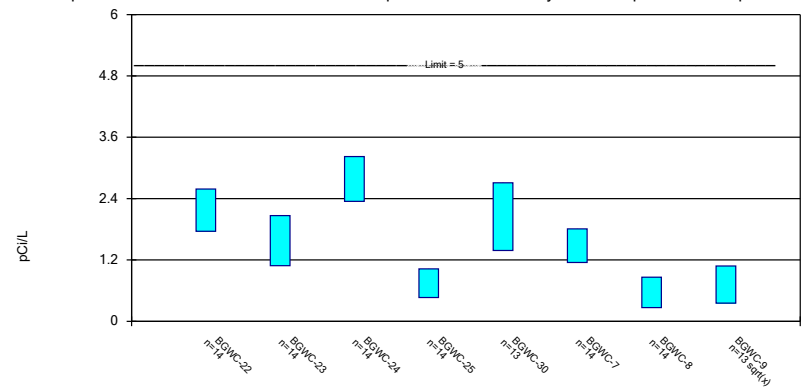
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Total Radium Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Total Radium Analysis Run 12/11/2019 3:28 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.001	<0.001		0.0002 (J)	8.5E-05 (J)				
6/8/2016						<0.001	8.5E-05 (J)	<0.001	<0.001
6/10/2016			<0.001						
8/11/2016				0.0002 (J)	8E-05 (J)				
8/12/2016		9E-05 (J)				6E-05 (J)	8E-05 (J)	<0.001	
8/16/2016	<0.001								
8/17/2016			<0.001						
8/18/2016									<0.001
10/6/2016		<0.001							
10/7/2016	<0.001		<0.001	0.0002 (J)	<0.001	<0.001	<0.001		
10/10/2016								<0.001	<0.001
12/5/2016		<0.001							
12/6/2016	<0.001			0.0003 (J)	<0.001	<0.001			
12/7/2016							<0.001	<0.001	
12/8/2016			<0.001						<0.001
2/15/2017		<0.001							
2/16/2017	<0.001			0.0003 (J)	<0.001	<0.001	<0.001		
2/17/2017								<0.001	<0.001
2/21/2017			<0.001						
4/18/2017	<0.001	9E-05 (J)		0.0002 (J)					
4/19/2017					8E-05 (J)	<0.001	6E-05 (J)	<0.001	<0.001
4/21/2017			<0.001						
5/30/2017				0.0002 (J)	9E-05 (J)				
6/1/2017						<0.001	8E-05 (J)	<0.001	<0.001
6/2/2017	<0.001	<0.001							
6/6/2017			<0.001						
6/15/2017			<0.001						
7/12/2017	<0.001								
7/13/2017		8E-05 (J)							
7/14/2017				0.0002 (J)	9E-05 (J)	<0.001	8E-05 (J)		
7/18/2017								<0.001	<0.001
7/19/2017			<0.001						
3/27/2018	<0.001			0.00019 (J)	<0.001	<0.001	<0.001		
3/28/2018		<0.001						<0.001	<0.001
3/29/2018			<0.001						
6/12/2018				0.0002 (J)					
6/13/2018								<0.001	
6/14/2018	<0.001	<0.001			<0.001	<0.001			<0.001
6/15/2018			<0.001				<0.001		
10/17/2018		<0.001			<0.001				
10/18/2018	<0.001			0.0002 (J)		<0.001			
10/19/2018			0.00017 (J)				<0.001		<0.001
10/22/2018								<0.001	
2/25/2019				0.00023 (J)					
2/27/2019					<0.001	<0.001		<0.001	
2/28/2019	<0.001	<0.001							
3/1/2019							<0.001		
3/6/2019			<0.001						
4/1/2019		<0.001							
4/2/2019	<0.001			0.0002 (J)	7.5E-05 (J)	<0.001			
4/3/2019							<0.001	<0.001	<0.001
4/4/2019			<0.001						

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	<0.001	6E-05 (J)	<0.001						
9/26/2019				0.00023 (J)	0.00026 (J)	7.1E-05 (J)	8E-05 (J)	<0.001	
9/30/2019									<0.001
Mean	0.001	0.0007371	0.0009447	0.0002179	0.0005543	0.0008665	0.0006046	0.001	0.001
Std. Dev.	0	0.0004314	0.0002143	3.662E-05	0.0004648	0.0003394	0.0004738	0	0
Upper Lim.	0.001	0.001	0.001	0.00023	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.001	8E-05	0.00017	0.00019	8E-05	7.1E-05	8E-05	0.001	0.001

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.001
6/7/2016							<0.001	
6/8/2016	0.00035 (J)			<0.001		<0.001		
6/9/2016		0.0001 (J)	0.00022 (J)					
8/10/2016							<0.001	
8/11/2016						<0.001		<0.001
8/15/2016				<0.001				
8/18/2016	0.0005 (J)	<0.001	<0.001					
10/4/2016							<0.001	
10/5/2016								<0.001
10/6/2016						<0.001		
10/10/2016	0.0006 (J)	<0.001	0.0003 (J)	<0.001				
12/2/2016							<0.001	
12/5/2016								<0.001
12/6/2016						<0.001		
12/7/2016		<0.001	<0.001					
12/8/2016	0.0005 (J)			<0.001				
1/23/2017					0.0008 (J)			
2/7/2017					0.0008 (J)			
2/14/2017							<0.001	
2/15/2017						<0.001		<0.001
2/17/2017	0.0006 (J)							
2/20/2017		<0.001	0.0003 (J)	<0.001				
3/27/2017					0.0006 (J)			
4/14/2017							<0.001	
4/17/2017					0.0007 (J)			<0.001
4/18/2017						<0.001		
4/19/2017		<0.001	0.0004 (J)					
4/20/2017	0.0006 (J)			<0.001				
5/22/2017					0.0008 (J)			
5/26/2017							<0.001	<0.001
6/1/2017				<0.001				
6/2/2017						<0.001		
6/5/2017	0.0006 (J)	<0.001	0.0004 (J)		0.0007 (J)			
7/10/2017							<0.001	
7/11/2017					0.0007 (J)			<0.001
7/14/2017						<0.001		
7/17/2017		<0.001	0.0004 (J)	<0.001				
7/19/2017	0.0007 (J)							
8/23/2017					0.0007 (J)			
3/26/2018					0.00058 (J)		<0.001	
3/27/2018						<0.001		<0.001
3/28/2018				<0.001				
3/29/2018	0.00063 (J)	<0.001	0.00048 (J)					
6/12/2018							<0.001	<0.001
6/13/2018		<0.001	0.00053 (J)			<0.001		
6/14/2018	0.00069 (J)			<0.001				
6/15/2018					0.00056 (J)			
10/16/2018							<0.001	
10/17/2018								<0.001
10/18/2018						<0.001		
10/22/2018	0.00071 (J)	<0.001	0.00047 (J)	<0.001	0.00034 (J)			

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.001	
2/28/2019						<0.001		
3/1/2019	0.00074 (J)	<0.001	0.0007 (J)	<0.001	0.00024 (J)			
4/1/2019							<0.001	6.5E-05 (J)
4/2/2019					0.00024 (J)	7E-05 (J)		
4/3/2019	0.0007 (J)	<0.001	0.00064 (J)					
4/4/2019				<0.001				
9/24/2019						8.7E-05 (J)	<0.001	<0.001
9/27/2019	0.00088 (J)	0.00018 (J)			0.00014 (J)			
9/30/2019			0.00069 (J)	<0.001				
Mean	0.0006286	0.0008771	0.0005379	0.001	0.0005643	0.0008684	0.001	0.0009281
Std. Dev.	0.0001271	0.0003127	0.0002428	0	0.0002291	0.0003346	0	0.0002593
Upper Lim.	0.0007186	0.001	0.0007098	0.001	0.0007266	0.001	0.001	0.001
Lower Lim.	0.0005385	0.00018	0.0003659	0.001	0.000402	8.7E-05	0.001	6.5E-05

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.616	0.024 (U)		0.284 (U)	0.135 (U)				
6/8/2016						0.406	0.264 (U)	0.863 (U)	0.573
8/11/2016				1.71	0.808				
8/12/2016		0.849				1.39	1.18	1.74	
8/16/2016	1.08								
8/17/2016			5.18						
8/18/2016									0.44 (U)
10/6/2016		1.57							
10/7/2016	2.82			0.485 (U)	0.874 (U)	0.451 (U)	1.97		
10/10/2016								0.944 (U)	0.933 (U)
12/5/2016		0.956							
12/6/2016	0.719 (U)			1.22	0.131 (U)	0.516 (U)			
12/7/2016							1.31 (U)	2.29	
12/8/2016									1.02 (U)
2/15/2017		0.229 (U)							
2/16/2017	0.966 (U)			0.19 (U)	0.471 (U)	0.172 (U)	0.35 (U)		
2/17/2017								1.35 (U)	0.193 (U)
2/21/2017			5.1						
4/18/2017	1.01 (U)	0.0114 (U)		0.52 (U)					
4/19/2017					0.65 (U)	0.704 (U)	0.974 (U)	1.48	0.488 (U)
5/26/2017			7.14						
5/30/2017				1.21 (U)	0.65 (U)				
6/1/2017						0.493 (U)	0.332 (U)	1.61	0.837 (U)
6/2/2017	1.13 (U)	0.375 (U)							
6/6/2017			4.68						
6/15/2017			5.69						
7/12/2017	1.29		2.92						
7/13/2017		0.636 (U)							
7/14/2017				0.526 (U)	0.592 (U)	0.547 (U)	1.27		
7/18/2017									0.498 (U)
7/19/2017								1.626	
8/10/2017			6.51						
8/25/2017			7.04						
3/27/2018	0.779 (U)			1.34	0.551 (U)	0.569 (U)	0.169 (U)		
3/28/2018		0.36 (U)						0.97 (U)	0.864 (U)
3/29/2018			6.35						
6/12/2018				0.732 (U)					
6/13/2018								0.686 (U)	
6/14/2018	1.22 (U)	0.316 (U)			0.638 (U)	0.989 (U)			0.583 (U)
6/15/2018			6.2				0.625 (U)		
10/17/2018		0.326 (U)			0.555 (U)				
10/18/2018	0.841 (U)			0.522 (U)		0.875 (U)			
10/19/2018			3.76				0.784 (U)		0.982 (U)
10/22/2018								0.559 (U)	
2/25/2019				1.08					
2/27/2019					1.57	1.12		1.24	
2/28/2019	1.88	1.04							
3/1/2019							0.989 (U)		
3/6/2019			9.46						
4/1/2019		0.328 (U)							
4/2/2019	1.21 (U)			1.73	0.71 (U)	0.814 (U)			
4/3/2019							0.98 (U)	0.567 (U)	0.532 (U)

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
4/4/2019			8.48						
9/25/2019	0.816 (U)	0.649 (U)	6.03						
9/26/2019				1.45	1.17 (U)	0.973 (U)	1.16	0.662 (U)	
9/30/2019									1.16 (U)
Mean	1.17	0.5478	6.039	0.9285	0.6789	0.7156	0.8826	1.185	0.7002
Std. Dev.	0.5697	0.4335	1.726	0.5242	0.3693	0.3276	0.5011	0.5208	0.2831
Upper Lim.	1.494	0.8548	7.261	1.3	0.9405	0.9477	1.238	1.554	0.9108
Lower Lim.	0.8	0.2408	4.816	0.5572	0.4174	0.4836	0.5277	0.8159	0.4897

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.488
6/7/2016							0.0507 (U)	
6/8/2016	1.53			0.314 (U)		0.854		
6/9/2016		0.704	2.13					
8/10/2016							0.862 (U)	
8/11/2016						1.24		0.639 (U)
8/15/2016				1.2				
8/18/2016	2.47	1.88	2.67					
10/4/2016							0.48 (U)	
10/5/2016								0.945 (U)
10/6/2016						2.43		
10/10/2016	2.11	1.48	3.46	1.03 (U)				
12/2/2016							0.219 (U)	
12/5/2016								2.2
12/6/2016						0.958 (U)		
12/7/2016		2.61	1.65					
12/8/2016	2.64			1.47 (U)				
1/23/2017					2.17			
2/7/2017					3			
2/14/2017							0.636 (U)	
2/15/2017						1.18		0.74 (U)
2/17/2017	1.34							
2/20/2017		0.884 (U)	2.68	0.547 (U)				
4/14/2017							0.13 (U)	
4/17/2017					2.73			0.764 (U)
4/18/2017						1.26		
4/19/2017		0.948 (U)	3.81					
4/20/2017	2.35			0.0595 (U)				
5/22/2017					3.15			
5/26/2017							0.349 (U)	0.245 (U)
6/1/2017				0.67 (U)				
6/2/2017						1.24 (U)		
6/5/2017	1.6	1.33	2.86		0.86 (U)			
7/10/2017							0.565 (U)	
7/11/2017					1.87			0.502 (U)
7/14/2017						1.55		
7/17/2017		1.04	2.87	1.25 (U)				
7/19/2017	1.76							
8/23/2017					3.39			
3/26/2018					1.61		0.303 (U)	
3/27/2018						2.15		0.745 (U)
3/28/2018				0.507 (U)				
3/29/2018	2.43	1.65	2.79					
6/12/2018							0.494 (U)	0.319 (U)
6/13/2018		0.983 (U)	2.19			1.95		
6/14/2018	2.14			0.721 (U)				
6/15/2018					0.815 (U)			
10/16/2018							0.633 (U)	
10/17/2018								0.319 (U)
10/18/2018						1.1		
10/22/2018	1.43	1.21	2.18	0.741 (U)	1.02 (U)			
2/25/2019							1.03 (U)	

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 12/11/2019 3:32 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/28/2019						1.38		
3/1/2019	3.32	2.24	3.37	0.634 (U)	2.47			
4/1/2019							0.474 (U)	0.225 (U)
4/2/2019					2.29	1.57		
4/3/2019	2.48	2.86	3.6					
4/4/2019				0.346 (U)				
9/24/2019						1.85	1.69	1.65
9/27/2019	2.83	2.28			1.23 (U)			
9/30/2019			2.73	0.953 (U)				
Mean	2.174	1.579	2.785	0.7459	2.047	1.479	0.5654	0.7524
Std. Dev.	0.5823	0.6922	0.6196	0.3963	0.8907	0.4636	0.4196	0.577
Upper Lim.	2.586	2.069	3.224	1.027	2.709	1.808	0.8626	1.083
Lower Lim.	1.761	1.088	2.346	0.4652	1.384	1.151	0.2682	0.3562

USEPA Based Groundwater Protection
Standards Statistical Analysis Package

AM 02

Tolerance Limit (USEPA)

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 11:41 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	20	95	n/a	0.3585	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	28	35.71	n/a	0.2378	NP Inter(normality)
Barium (mg/L)	n/a	0.218	n/a	n/a	n/a	28	0	n/a	0.2378	NP Inter(normality)
Beryllium (mg/L)	n/a	0.003	n/a	n/a	n/a	24	100	n/a	0.292	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	28	96.43	n/a	0.2378	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01	n/a	n/a	n/a	24	66.67	n/a	0.292	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.005	n/a	n/a	n/a	29	89.66	n/a	0.2259	NP Inter(NDs)
Fluoride (mg/L)	n/a	0.3	n/a	n/a	n/a	31	32.26	n/a	0.2039	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	n/a	n/a	24	87.5	n/a	0.292	NP Inter(NDs)
Lithium (mg/L)	n/a	0.03	n/a	n/a	n/a	28	92.86	n/a	0.2378	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0005	n/a	n/a	n/a	24	91.67	n/a	0.292	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	29	65.52	n/a	0.2259	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	n/a	n/a	24	95.83	n/a	0.292	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	28	78.57	n/a	0.2378	NP Inter(NDs)
Total Radium (pCi/L)	n/a	1.888	n/a	n/a	n/a	28	0	No	0.05	Inter

Table F-2
USEPA Based Groundwater Protection Standards
Plant Bowen - Ash Pond 1
Bartow County, Georgia

Constituent	CAS	Units	EPA MCL	Statistically Derived Upper Tolerance Limit for Background	GWPS ¹
Antimony	7440-36-0	mg/L	0.006	0.003	0.006
Arsenic	7440-38-2	mg/L	0.01	0.005	0.01
Barium	7440-39-3	mg/L	2	0.22	2
Beryllium	7440-41-7	mg/L	0.004	0.003	0.004
Cadmium	7440-43-9	mg/L	0.005	0.003	0.005
Chromium	7440-47-3	mg/L	0.1	0.01	0.1
Cobalt ²	7440-48-4	mg/L	0.006	0.005	0.006
Fluoride	16984-48-8	mg/L	4	0.3	4
Lead ³	7439-92-1	mg/L	0.015	0.005	0.015
Lithium ²	7439-93-2	mg/L	0.04	0.03	0.04
Mercury	7439-97-6	mg/L	0.002	0.0005	0.002
Molybdenum ²	7439-98-7	mg/L	0.1	0.01	0.1
Selenium	7782-49-2	mg/L	0.05	0.01	0.05
Thallium	7440-28-0	mg/L	0.002	0.001	0.002
Total Radium	7440-14-4	pCi/L	5	1.89	5

Notes:

EPA MCL - U.S. Environmental Protection Agency, Maximum Contaminant Level

GWPS - Groundwater Protection Standards

mg/L - milligram per liter

pCi/L - Picocuries per liter

¹GWPS selected as the greater value between the EPA MCL and the background Upper Tolerance Limit.

²Regional Screening Level applied for constituent per CCR Rule Amendment, July 30, 2018.

³Currently, there is no EPA MCL established for lead. The value listed is the established EPA Action Level for drinking water.

Confidence Interval (USEPA) - Significant Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 4:49 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>
Cobalt (mg/L)	BGWC-22	0.01898	0.01181	0.006	Yes	15	0	No	0.01	Param.

Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	BGWC-10	0.007685	0.005515	0.01	No	14	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-12	0.00102	0.0004876	0.01	No	14	42.86	ln(x)	0.01	Param.
Arsenic (mg/L)	BGWC-14	0.003267	0.001287	0.01	No	15	26.67	No	0.01	Param.
Arsenic (mg/L)	BGWC-16	0.005	0.00073	0.01	No	14	50	No	0.01	NP (normality)
Arsenic (mg/L)	BGWC-17	0.005	0.00076	0.01	No	14	57.14	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-18	0.005	0.0005	0.01	No	14	57.14	No	0.01	NP (NDs)
Arsenic (mg/L)	BGWC-19	0.000915	0.0003995	0.01	No	14	35.71	ln(x)	0.01	Param.
Arsenic (mg/L)	BGWC-20	0.001665	0.0008195	0.01	No	14	28.57	sqrt(x)	0.01	Param.
Arsenic (mg/L)	BGWC-21	0.001396	0.0006667	0.01	No	13	38.46	sqrt(x)	0.01	Param.
Arsenic (mg/L)	BGWC-22	0.003219	0.001681	0.01	No	14	7.143	No	0.01	Param.
Arsenic (mg/L)	BGWC-23	0.002859	0.001526	0.01	No	14	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-24	0.007151	0.00302	0.01	No	14	0	No	0.01	Param.
Arsenic (mg/L)	BGWC-25	0.003233	0.00201	0.01	No	14	7.143	No	0.01	Param.
Arsenic (mg/L)	BGWC-30	0.002352	0.0007736	0.01	No	14	21.43	No	0.01	Param.
Arsenic (mg/L)	BGWC-7	0.003531	0.001883	0.01	No	14	14.29	No	0.01	Param.
Arsenic (mg/L)	BGWC-8	0.0008364	0.0004089	0.01	No	14	35.71	ln(x)	0.01	Param.
Arsenic (mg/L)	BGWC-9	0.003581	0.00225	0.01	No	13	7.692	No	0.01	Param.
Barium (mg/L)	BGWC-10	0.06653	0.05033	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-12	0.03317	0.02773	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-14	0.08095	0.06637	2	No	15	0	No	0.01	Param.
Barium (mg/L)	BGWC-16	0.03122	0.02703	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-17	0.01937	0.01546	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-18	0.0375	0.03006	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-19	0.04124	0.0329	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-20	0.03386	0.02957	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-21	0.04888	0.04	2	No	13	0	No	0.01	Param.
Barium (mg/L)	BGWC-22	0.09396	0.08728	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-23	0.09656	0.08384	2	No	14	0	x^(1/3)	0.01	Param.
Barium (mg/L)	BGWC-24	0.1232	0.08349	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-25	0.0297	0.01995	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-30	0.1884	0.1065	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-7	0.04192	0.03651	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BGWC-8	0.03179	0.02497	2	No	14	0	x^2	0.01	Param.
Barium (mg/L)	BGWC-9	0.03388	0.02775	2	No	13	0	No	0.01	Param.
Beryllium (mg/L)	BGWC-10	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-12	0.003	0.000076	0.004	No	12	91.67	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-14	0.003	0.003	0.004	No	13	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-16	0.003	0.00008	0.004	No	12	75	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-17	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-18	0.003	0.00009	0.004	No	12	75	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-19	0.003	0.00008	0.004	No	12	83.33	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-20	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-21	0.003	0.003	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	BGWC-22	0.003	0.000099	0.004	No	12	75	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-23	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-24	0.003	0.000093	0.004	No	12	91.67	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-25	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-30	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-7	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BGWC-8	0.003	0.003	0.004	No	12	100	No	0.01	NP (NDs)

Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Beryllium (mg/L)	BGWC-9	0.003	0.003	0.004	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	BGWC-10	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-12	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-14	0.0025	0.0025	0.005	No	15	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-16	0.001418	0.001139	0.005	No	14	0	No	0.01	Param.
Cadmium (mg/L)	BGWC-17	0.0025	0.0001	0.005	No	14	35.71	No	0.01	NP (normality)
Cadmium (mg/L)	BGWC-18	0.0004936	0.0001597	0.005	No	14	28.57	sqrt(x)	0.01	Param.
Cadmium (mg/L)	BGWC-19	0.0025	0.0002	0.005	No	14	78.57	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-20	0.0025	0.00008	0.005	No	14	92.86	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-21	0.0025	0.0025	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-22	0.0025	0.0002	0.005	No	14	85.71	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-23	0.0025	0.00019	0.005	No	14	92.86	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-24	0.005359	0.002144	0.005	No	14	0	No	0.01	Param.
Cadmium (mg/L)	BGWC-25	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-30	0.0003275	0.0001083	0.005	No	14	28.57	ln(x)	0.01	Param.
Cadmium (mg/L)	BGWC-7	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-8	0.0025	0.0025	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BGWC-9	0.0025	0.0025	0.005	No	13	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-10	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-12	0.01	0.00055	0.1	No	12	83.33	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-14	0.01	0.0014	0.1	No	13	84.62	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-16	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-17	0.01	0.00044	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-18	0.01	0.0011	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-19	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-20	0.01	0.0022	0.1	No	12	75	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-21	0.01	0.01	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	BGWC-22	0.01	0.01	0.1	No	12	100	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-23	0.01	0.002	0.1	No	12	75	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-24	0.01	0.0009	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-25	0.01	0.0021	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-30	0.01	0.0004	0.1	No	12	41.67	No	0.01	NP (normality)
Chromium (mg/L)	BGWC-7	0.01	0.00055	0.1	No	12	91.67	No	0.01	NP (NDs)
Chromium (mg/L)	BGWC-8	0.00473	0.00071	0.1	No	12	33.33	ln(x)	0.01	Param.
Chromium (mg/L)	BGWC-9	0.01	0.01	0.1	No	11	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	BGWC-10	0.005	0.00056	0.006	No	14	85.71	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-12	0.005	0.0004	0.006	No	14	71.43	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-14	0.005	0.0003	0.006	No	15	80	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-16	0.006146	0.004298	0.006	No	14	7.143	sqrt(x)	0.01	Param.
Cobalt (mg/L)	BGWC-17	0.005	0.00015	0.006	No	14	92.86	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-18	0.005	0.0006	0.006	No	14	64.29	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-19	0.005	0.000072	0.006	No	14	92.86	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-20	0.005	0.0008	0.006	No	14	85.71	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-21	0.005	0.00041	0.006	No	13	61.54	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-22	0.01898	0.01181	0.006	Yes	15	0	No	0.01	Param.
Cobalt (mg/L)	BGWC-23	0.005	0.0015	0.006	No	14	78.57	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-24	0.004388	0.002641	0.006	No	14	7.143	No	0.01	Param.
Cobalt (mg/L)	BGWC-25	0.005	0.0006	0.006	No	14	85.71	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-30	0.00087	0.0003613	0.006	No	14	35.71	ln(x)	0.01	Param.
Cobalt (mg/L)	BGWC-7	0.005	0.0006	0.006	No	14	28.57	No	0.01	NP (normality)

Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cobalt (mg/L)	BGWC-8	0.005	0.0003	0.006	No	14	71.43	No	0.01	NP (NDs)
Cobalt (mg/L)	BGWC-9	0.005	0.0003	0.006	No	13	76.92	No	0.01	NP (NDs)
Fluoride (mg/L)	BGWC-10	0.2155	0.07312	4	No	15	13.33	No	0.01	Param.
Fluoride (mg/L)	BGWC-12	0.16	0.05082	4	No	15	26.67	No	0.01	Param.
Fluoride (mg/L)	BGWC-14	0.4232	0.1421	4	No	15	13.33	No	0.01	Param.
Fluoride (mg/L)	BGWC-16	0.2657	0.09608	4	No	15	26.67	No	0.01	Param.
Fluoride (mg/L)	BGWC-17	0.3247	0.1395	4	No	15	6.667	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-18	0.2397	0.08042	4	No	15	13.33	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-19	0.1833	0.0578	4	No	15	20	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-20	0.1729	0.02833	4	No	15	26.67	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-21	0.07347	0.03541	4	No	14	28.57	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BGWC-22	0.601	0.2697	4	No	16	0	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BGWC-23	0.3697	0.08844	4	No	15	13.33	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-24	2.1	0.5001	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	BGWC-25	0.1133	0.05639	4	No	15	26.67	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BGWC-30	0.4431	0.1395	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	BGWC-7	0.2212	0.1237	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	BGWC-8	0.3	0.02	4	No	15	46.67	No	0.01	NP (normality)
Fluoride (mg/L)	BGWC-9	0.3485	0.1309	4	No	14	0	No	0.01	Param.
Lead (mg/L)	BGWC-10	0.005	0.00019	0.015	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-12	0.005	0.0001	0.015	No	12	50	No	0.01	NP (normality)
Lead (mg/L)	BGWC-14	0.005	0.00009	0.015	No	13	92.31	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-16	0.005	0.0002	0.015	No	12	75	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-17	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-18	0.005	0.00009	0.015	No	12	41.67	No	0.01	NP (normality)
Lead (mg/L)	BGWC-19	0.005	0.0006	0.015	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-20	0.005	0.0001	0.015	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-21	0.005	0.000073	0.015	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	BGWC-22	0.005	0.00033	0.015	No	12	83.33	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-23	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-24	0.005	0.00059	0.015	No	12	83.33	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-25	0.005	0.0002	0.015	No	12	58.33	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-30	0.005	0.00008	0.015	No	12	58.33	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-7	0.005	0.005	0.015	No	12	100	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-8	0.005	0.0003	0.015	No	12	91.67	No	0.01	NP (NDs)
Lead (mg/L)	BGWC-9	0.005	0.000092	0.015	No	11	45.45	No	0.006	NP (normality)
Lithium (mg/L)	BGWC-10	0.03	0.0011	0.04	No	14	42.86	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-12	0.03	0.0011	0.04	No	14	78.57	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-14	0.03	0.03	0.04	No	15	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-16	0.03	0.00049	0.04	No	14	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-17	0.03	0.00069	0.04	No	14	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-18	0.03	0.03	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-19	0.03	0.03	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-20	0.02231	0.01603	0.04	No	14	0	No	0.01	Param.
Lithium (mg/L)	BGWC-21	0.03	0.03	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-22	0.02429	0.01285	0.04	No	14	0	sqrt(x)	0.01	Param.
Lithium (mg/L)	BGWC-23	0.01566	0.009487	0.04	No	14	0	No	0.01	Param.
Lithium (mg/L)	BGWC-24	0.0075	0.0053	0.04	No	14	7.143	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-25	0.03	0.03	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-30	0.01802	0.01075	0.04	No	14	0	x^3	0.01	Param.

Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 4:49 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	BGWC-7	0.0102	0.0079	0.04	No	14	7.143	No	0.01	NP (normality)
Lithium (mg/L)	BGWC-8	0.03	0.001	0.04	No	14	92.86	No	0.01	NP (NDs)
Lithium (mg/L)	BGWC-9	0.03	0.0012	0.04	No	13	53.85	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-10	0.0005	0.0001	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-12	0.0005	0.0001	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-14	0.0005	0.000062	0.002	No	13	92.31	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-16	0.0005	0.000098	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-17	0.0002546	0.0001412	0.002	No	12	16.67	sqrt(x)	0.01	Param.
Mercury (mg/L)	BGWC-18	0.0005	0.000079	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-19	0.0005	0.00008	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-20	0.0005	0.000066	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-21	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	BGWC-22	0.0005	0.000092	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-23	0.0005	0.00005	0.002	No	12	83.33	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-24	0.0006954	-0.00001456	0.002	No	12	25	No	0.01	Param.
Mercury (mg/L)	BGWC-25	0.0005	0.000047	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-30	0.00009032	0.00005166	0.002	No	12	33.33	ln(x)	0.01	Param.
Mercury (mg/L)	BGWC-7	0.0005	0.000053	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-8	0.0005	0.000097	0.002	No	12	91.67	No	0.01	NP (NDs)
Mercury (mg/L)	BGWC-9	0.0005	0.0005	0.002	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	BGWC-10	0.0039	0.0032	0.1	No	14	0	No	0.01	NP (normality)
Molybdenum (mg/L)	BGWC-12	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-14	0.01109	0.007351	0.1	No	15	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-16	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-17	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-18	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-19	0.01	0.00023	0.1	No	14	92.86	No	0.01	NP (NDs)
Molybdenum (mg/L)	BGWC-20	0.01442	0.0123	0.1	No	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-21	0.002475	0.001507	0.1	No	13	38.46	ln(x)	0.01	Param.
Molybdenum (mg/L)	BGWC-22	0.06829	0.051	0.1	No	15	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-23	0.01314	0.01229	0.1	No	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-24	0.00358	0.001497	0.1	No	14	21.43	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	BGWC-25	0.003693	0.001649	0.1	No	14	42.86	x^(1/3)	0.01	Param.
Molybdenum (mg/L)	BGWC-30	0.01849	0.01099	0.1	No	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-7	0.01285	0.008381	0.1	No	14	0	No	0.01	Param.
Molybdenum (mg/L)	BGWC-8	0.003622	0.001334	0.1	No	14	21.43	No	0.01	Param.
Molybdenum (mg/L)	BGWC-9	0.003593	0.002761	0.1	No	13	0	No	0.01	Param.
Selenium (mg/L)	BGWC-10	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-12	0.01	0.0004	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-14	0.01	0.0011	0.05	No	13	84.62	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-16	0.01	0.0012	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-17	0.01	0.00077	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-18	0.01	0.001	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-19	0.01	0.00058	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-20	0.01	0.0037	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-21	0.01	0.001	0.05	No	11	81.82	No	0.006	NP (NDs)
Selenium (mg/L)	BGWC-22	0.012	0.0018	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-23	0.0176	0.01	0.05	No	12	91.67	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-24	0.00938	0.001925	0.05	No	12	16.67	sqrt(x)	0.01	Param.
Selenium (mg/L)	BGWC-25	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)

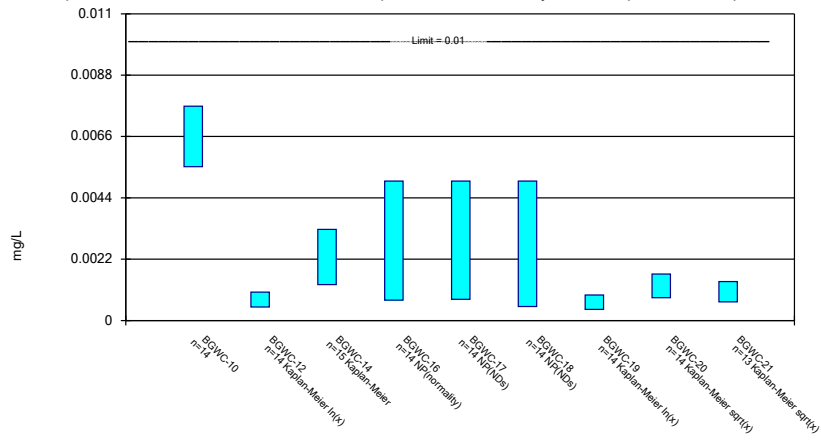
Confidence Interval (USEPA) - All Results

Plant Bowen Client: Georgia Power Data: Bowen AP-1 Printed 12/12/2019, 4:49 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>
Selenium (mg/L)	BGWC-30	0.0121	0.007765	0.05	No	12	8.333	No	0.01	Param.
Selenium (mg/L)	BGWC-7	0.01	0.01	0.05	No	12	100	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-8	0.01	0.00015	0.05	No	12	83.33	No	0.01	NP (NDs)
Selenium (mg/L)	BGWC-9	0.01	0.0004	0.05	No	11	54.55	No	0.006	NP (NDs)
Thallium (mg/L)	BGWC-10	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-12	0.001	0.00008	0.002	No	14	71.43	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-14	0.001	0.00017	0.002	No	15	93.33	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-16	0.00023	0.00019	0.002	No	14	0	No	0.01	NP (normality)
Thallium (mg/L)	BGWC-17	0.001	0.00008	0.002	No	14	50	No	0.01	NP (normality)
Thallium (mg/L)	BGWC-18	0.001	0.000071	0.002	No	14	85.71	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-19	0.001	0.00008	0.002	No	14	57.14	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-20	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-21	0.001	0.001	0.002	No	13	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-22	0.0007186	0.0005385	0.002	No	14	0	No	0.01	Param.
Thallium (mg/L)	BGWC-23	0.001	0.00018	0.002	No	14	85.71	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-24	0.0007098	0.0003659	0.002	No	14	14.29	No	0.01	Param.
Thallium (mg/L)	BGWC-25	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-30	0.0007266	0.000402	0.002	No	14	0	No	0.01	Param.
Thallium (mg/L)	BGWC-7	0.001	0.000087	0.002	No	14	85.71	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-8	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BGWC-9	0.001	0.000065	0.002	No	13	92.31	No	0.01	NP (NDs)
Total Radium (pCi/L)	BGWC-10	1.494	0.8	5	No	14	0	sqrt(x)	0.01	Param.
Total Radium (pCi/L)	BGWC-12	0.8548	0.2408	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-14	7.261	4.816	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-16	1.3	0.5572	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-17	0.9405	0.4174	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-18	0.9477	0.4836	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-19	1.238	0.5277	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-20	1.554	0.8159	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-21	0.9108	0.4897	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-22	2.586	1.761	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-23	2.069	1.088	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-24	3.224	2.346	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-25	1.027	0.4652	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-30	2.709	1.384	5	No	13	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-7	1.808	1.151	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-8	0.8626	0.2682	5	No	14	0	No	0.01	Param.
Total Radium (pCi/L)	BGWC-9	1.083	0.3562	5	No	13	0	sqrt(x)	0.01	Param.

Parametric and Non-Parametric (NP) Confidence Interval

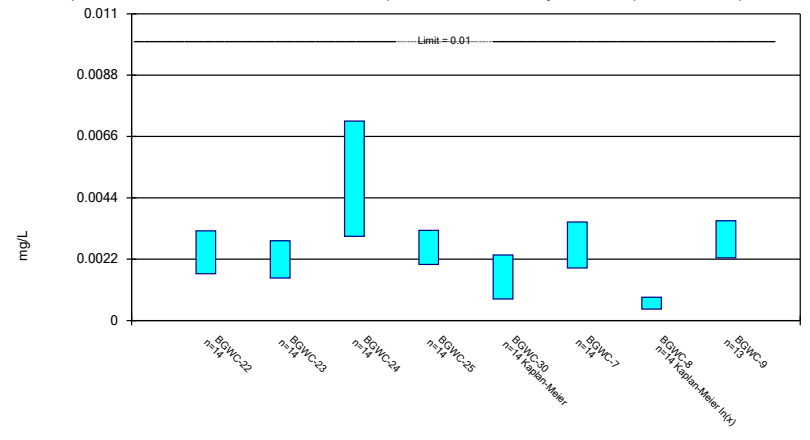
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Arsenic Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

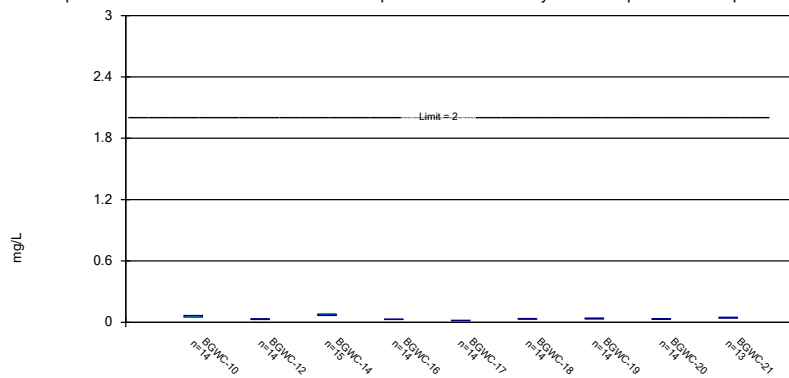
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Constituent: Arsenic Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

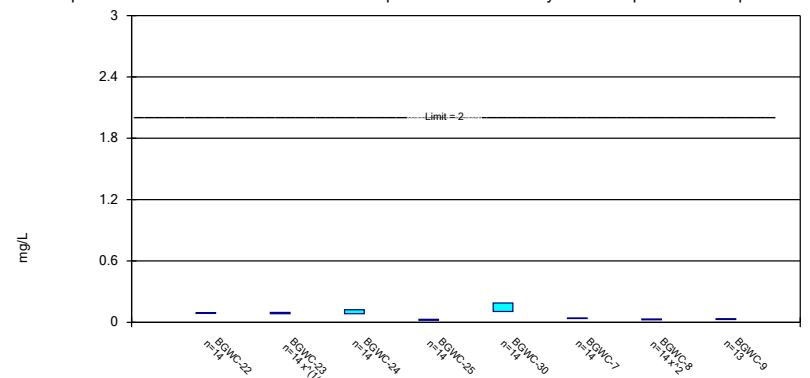
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Barium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0039	<0.005		<0.005	<0.005				
6/8/2016						<0.005	0.00046 (J)	0.0011 (J)	0.0015
6/10/2016			0.0049						
8/11/2016				<0.005	<0.005				
8/12/2016		0.0009 (J)				<0.005	0.0008 (J)	0.0017 (J)	
8/16/2016	0.0091								
8/17/2016			0.0042 (J)						
8/18/2016									<0.005
10/6/2016		<0.005							
10/7/2016	0.0074		<0.005	<0.005	<0.005	<0.005	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		<0.005							
12/6/2016	0.0044 (J)			<0.005	<0.005	<0.005			
12/7/2016							<0.005	<0.005	
12/8/2016			<0.005						<0.005
2/15/2017		<0.005							
2/16/2017	0.0081			<0.005	<0.005	<0.005	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	0.0084	0.0009 (J)		0.0007 (J)					
4/19/2017					0.0012 (J)	0.0013 (J)	0.0015 (J)	0.002 (J)	0.002 (J)
4/21/2017			0.0039 (J)						
5/30/2017				0.0008 (J)	0.0006 (J)				
6/1/2017						0.0005 (J)	0.0008 (J)	0.0017 (J)	0.0011 (J)
6/2/2017	0.008	0.0015 (J)							
6/6/2017			0.001 (J)						
6/15/2017			0.0024 (J)						
7/12/2017	0.0063								
7/13/2017		0.0006 (J)							
7/14/2017				0.0008 (J)	<0.005	<0.005	0.0006 (J)		
7/18/2017								0.0018 (J)	0.0015 (J)
7/19/2017			0.0031 (J)						
3/27/2018	0.0064			0.0014 (J)	0.00076 (J)	0.00066 (J)	0.00082 (J)		
3/28/2018		0.0015 (J)						0.0018 (J)	0.0012 (J)
3/29/2018			0.0017 (J)						
6/12/2018				0.00073 (J)					
6/13/2018								0.0015 (J)	
6/14/2018	0.0075	0.00096 (J)			<0.005	<0.005			0.00087 (J)
6/15/2018			0.00074 (J)				0.00074 (J)		
10/17/2018		<0.005			<0.005				
10/18/2018	0.0056			<0.005		<0.005			
10/19/2018			<0.005				<0.005		0.00059 (J)
10/22/2018								<0.005	
2/25/2019				<0.005					
2/27/2019					0.001 (J)	0.00083 (J)		0.0014 (J)	
2/28/2019	0.0058	<0.005							
3/1/2019							<0.005		
3/6/2019			0.0015 (J)						
4/1/2019		0.00028 (J)							
4/2/2019	0.0057			0.0003 (J)	0.00024 (J)	0.00015 (J)			
4/3/2019							0.00017 (J)	0.00027 (J)	0.00038 (J)
4/4/2019			0.00041 (J)						

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	0.0058	0.00085 (J)	0.0012 (J)						
9/26/2019				0.00074 (J)	0.0008 (J)	0.00046 (J)	0.00067 (J)	0.00087 (J)	
9/30/2019									<0.005
Mean	0.0066	0.002678	0.003003	0.002891	0.003186	0.003136	0.002254	0.002439	0.002626
Std. Dev.	0.001532	0.002109	0.001797	0.0022	0.002184	0.002247	0.002142	0.001738	0.001995
Upper Lim.	0.007685	0.00102	0.003267	0.005	0.005	0.005	0.000915	0.001665	0.001396
Lower Lim.	0.005515	0.0004876	0.001287	0.00073	0.00076	0.0005	0.0003995	0.0008195	0.0006667

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.0022
6/7/2016							0.00018 (J)	
6/8/2016	0.0012 (J)			0.0037		0.0024		
6/9/2016		0.0012 (J)	0.0016					
8/10/2016							<0.005	
8/11/2016						0.0024 (J)		0.0028 (J)
8/15/2016				0.003 (J)				
8/18/2016	0.0022 (J)	0.003 (J)	0.0054					
10/4/2016							<0.005	
10/5/2016								0.002 (J)
10/6/2016						<0.005		
10/10/2016	0.002 (J)	0.0021 (J)	0.0079	0.0026 (J)				
12/2/2016							<0.005	
12/5/2016								<0.005
12/6/2016						<0.005		
12/7/2016		0.0023 (J)	0.0121					
12/8/2016	<0.005			<0.005				
1/23/2017					<0.005			
2/7/2017					<0.005			
2/14/2017							<0.005	
2/15/2017						0.003 (J)		0.0033 (J)
2/17/2017	0.0023 (J)							
2/20/2017		0.0025 (J)	0.0063	0.0029 (J)				
3/27/2017					0.0019 (J)			
4/14/2017							0.0007 (J)	
4/17/2017					0.0017 (J)			0.0028 (J)
4/18/2017						0.0029 (J)		
4/19/2017		0.0032 (J)	0.0051					
4/20/2017	0.0028 (J)			0.0024 (J)				
5/22/2017					0.0034 (J)			
5/26/2017							0.0008 (J)	0.0035 (J)
6/1/2017				0.0025 (J)				
6/2/2017						0.0031 (J)		
6/5/2017	0.0035 (J)	0.0043 (J)	0.0072		0.0039 (J)			
7/10/2017							0.0011 (J)	
7/11/2017					0.0016 (J)			0.0033 (J)
7/14/2017						0.0017 (J)		
7/17/2017		0.0017 (J)	0.0031 (J)	0.0021 (J)				
7/19/2017	0.0028 (J)							
8/23/2017					0.001 (J)			
3/26/2018					0.0015 (J)		0.0009 (J)	
3/27/2018						0.0028 (J)		0.0021 (J)
3/28/2018				0.0019 (J)				
3/29/2018	0.0037 (J)	0.0028 (J)	0.0075 (J)					
6/12/2018							0.00065 (J)	0.0015 (J)
6/13/2018		0.0019 (J)	0.0045 (J)			0.0023 (J)		
6/14/2018	0.0027 (J)			0.0022 (J)				
6/15/2018					0.00089 (J)			
10/16/2018							0.00064 (J)	
10/17/2018								0.0035 (J)
10/18/2018						0.0015 (J)		
10/22/2018	0.0016 (J)	0.0015 (J)	0.0027 (J)	0.0026 (J)	0.00064 (J)			

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.005	
2/28/2019						0.0011 (J)		
3/1/2019	0.0011 (J)	0.0023 (J)	0.0032 (J)	0.0022 (J)	<0.005			
4/1/2019							0.00041 (J)	0.0026 (J)
4/2/2019					0.00024 (J)	0.0016 (J)		
4/3/2019	0.0021 (J)	0.00093 (J)	0.0019 (J)					
4/4/2019				0.0016 (J)				
9/24/2019						0.0031 (J)	0.00047 (J)	0.0033 (J)
9/27/2019	0.0013 (J)	0.00096 (J)			0.00042 (J)			
9/30/2019			0.0027 (J)	0.002 (J)				
Mean	0.00245	0.002192	0.005086	0.002621	0.002299	0.002707	0.002204	0.002915
Std. Dev.	0.001085	0.0009409	0.002916	0.0008631	0.001787	0.001163	0.002174	0.0008952
Upper Lim.	0.003219	0.002859	0.007151	0.003233	0.002352	0.003531	0.0008364	0.003581
Lower Lim.	0.001681	0.001526	0.00302	0.00201	0.0007736	0.001883	0.0004089	0.00225

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.091	0.027		0.027	0.017				
6/8/2016						0.039	0.036	0.036	0.054
6/10/2016			0.08						
8/11/2016				0.0292	0.0152				
8/12/2016		0.026				0.031	0.0412	0.0283	
8/16/2016	0.0667								
8/17/2016			0.0801						
8/18/2016									0.0479
10/6/2016		0.0308							
10/7/2016	0.0631		0.0764	0.0295	0.0225	0.0427	0.0427		
10/10/2016								0.0288	0.0433
12/5/2016		0.0258							
12/6/2016	0.0659			0.0367	0.0171	0.0398			
12/7/2016							0.0338	0.0279	
12/8/2016			0.0723						0.0474
2/15/2017		0.029							
2/16/2017	0.0621			0.0315	0.0187	0.0309	0.0407		
2/17/2017								0.0316	0.0483
2/21/2017			0.0789						
4/18/2017	0.0545	0.0294		0.0272					
4/19/2017					0.0183	0.0325	0.042	0.0367	0.0486
4/21/2017			0.0871						
5/30/2017				0.0316	0.0179				
6/1/2017						0.0331	0.0341	0.0361	0.0468
6/2/2017	0.0555	0.0354							
6/6/2017			0.0789						
6/15/2017			0.0822						
7/12/2017	0.0572								
7/13/2017		0.0329							
7/14/2017				0.029	0.0191	0.0349	0.0405		
7/18/2017								0.0346	0.0494
7/19/2017			0.091						
3/27/2018	0.051			0.027	0.015	0.027	0.029		
3/28/2018		0.034						0.03	0.043
3/29/2018			0.067						
6/12/2018				0.029					
6/13/2018								0.031	
6/14/2018	0.053	0.032			0.016	0.032			0.042
6/15/2018			0.066				0.032		
10/17/2018		0.033			0.015				
10/18/2018	0.053			0.026		0.033			
10/19/2018			0.065				0.037		0.038
10/22/2018								0.03	
2/25/2019				0.028					
2/27/2019					0.014	0.027		0.032	
2/28/2019	0.053	0.033							
3/1/2019							0.028		
3/6/2019			0.065						
4/1/2019		0.023							
4/2/2019	0.045			0.025	0.015	0.028			
4/3/2019							0.033	0.029	0.033
4/4/2019			0.049						

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	0.047	0.035	0.066						
9/26/2019				0.031	0.023	0.042	0.049	0.032	
9/30/2019									0.036
Mean	0.05843	0.03045	0.07366	0.02912	0.01741	0.03378	0.03707	0.03171	0.04444
Std. Dev.	0.01144	0.003837	0.01076	0.002956	0.002758	0.005256	0.005888	0.003031	0.005968
Upper Lim.	0.06653	0.03317	0.08095	0.03122	0.01937	0.0375	0.04124	0.03386	0.04888
Lower Lim.	0.05033	0.02773	0.06637	0.02703	0.01546	0.03006	0.0329	0.02957	0.04

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.034
6/7/2016							0.0051	
6/8/2016	0.092			0.038		0.048		
6/9/2016		0.11	0.14					
8/10/2016							0.0264	
8/11/2016						0.0428		0.0305
8/15/2016				0.0321				
8/18/2016	0.0953	0.0893	0.113					
10/4/2016							0.0316	
10/5/2016								0.0289
10/6/2016						0.0404		
10/10/2016	0.0954	0.0839	0.0888	0.0283				
12/2/2016							0.026	
12/5/2016								0.0269
12/6/2016						0.0385		
12/7/2016		0.0912	0.0289					
12/8/2016	0.0991			0.0294				
1/23/2017					0.237			
2/7/2017					0.191			
2/14/2017							0.0299	
2/15/2017						0.039		0.0299
2/17/2017	0.0927							
2/20/2017		0.0813	0.0999	0.0275				
3/27/2017					0.197			
4/14/2017							0.0275	
4/17/2017					0.192			0.0318
4/18/2017						0.0392		
4/19/2017		0.087	0.114					
4/20/2017	0.086			0.0279				
5/22/2017					0.197			
5/26/2017							0.0328	0.0341
6/1/2017				0.0313				
6/2/2017						0.0407		
6/5/2017	0.0875	0.084	0.135		0.201			
7/10/2017							0.0305	
7/11/2017					0.179			0.0355
7/14/2017						0.0394		
7/17/2017		0.0809	0.134	0.0251				
7/19/2017	0.0877							
8/23/2017					0.15			
3/26/2018					0.1		0.029	
3/27/2018						0.039		0.026
3/28/2018				0.018				
3/29/2018	0.088	0.085	0.08					
6/12/2018							0.031	0.024
6/13/2018		0.091	0.1			0.038		
6/14/2018	0.093			0.019				
6/15/2018					0.087			
10/16/2018							0.034	
10/17/2018								0.037
10/18/2018						0.037		
10/22/2018	0.088	0.087	0.1	0.018	0.1			

Confidence Interval

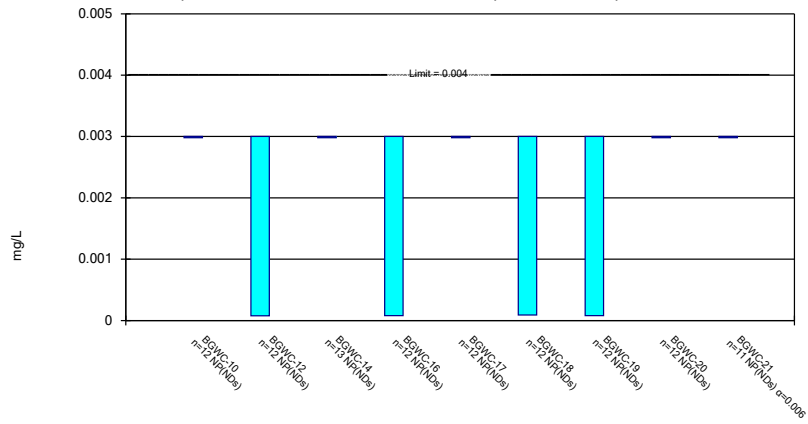
Constituent: Barium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							0.03	
2/28/2019						0.041		
3/1/2019	0.087	0.097	0.12	0.021	0.078			
4/1/2019							0.025	0.027
4/2/2019					0.075	0.031		
4/3/2019	0.082	0.087	0.095					
4/4/2019				0.016				
9/24/2019						0.035	0.03	0.035
9/27/2019	0.095	0.11			0.08			
9/30/2019			0.098	0.016				
Mean	0.09062	0.09033	0.1033	0.02483	0.1474	0.03921	0.02777	0.03082
Std. Dev.	0.004711	0.00934	0.02801	0.006881	0.05782	0.003814	0.007013	0.00412
Upper Lim.	0.09396	0.09656	0.1232	0.0297	0.1884	0.04192	0.03179	0.03388
Lower Lim.	0.08728	0.08384	0.08349	0.01995	0.1065	0.03651	0.02497	0.02775

Non-Parametric Confidence Interval

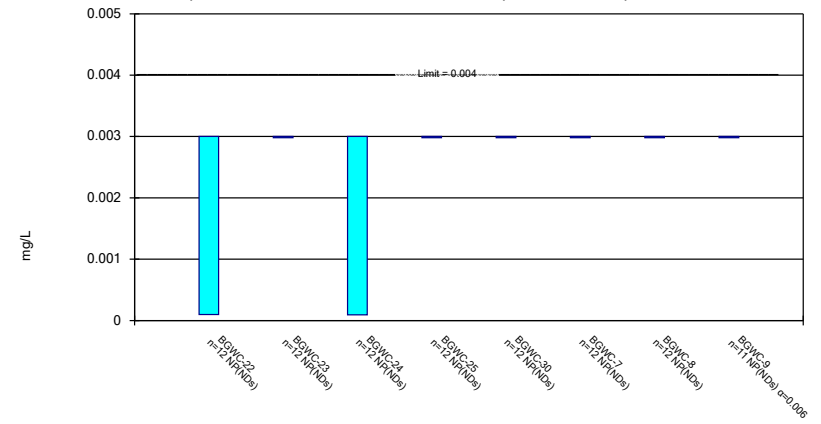
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

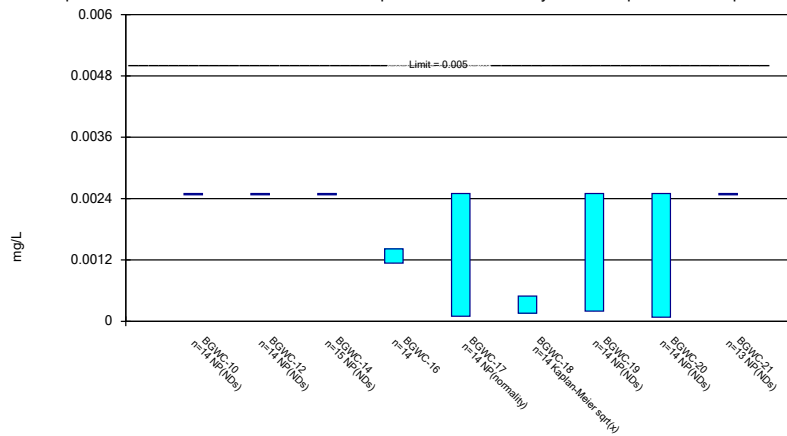
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Beryllium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

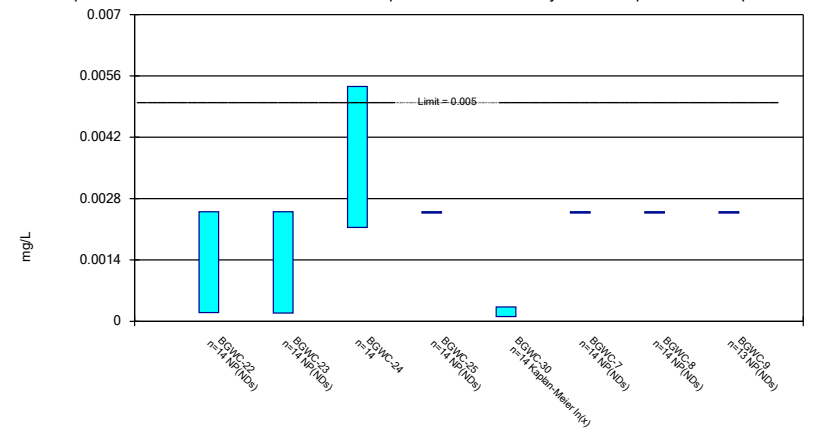
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cadmium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.003	<0.003		<0.003	<0.003				
6/8/2016						<0.003	<0.003	<0.003	<0.003
6/10/2016			<0.003						
8/11/2016				<0.003	<0.003				
8/12/2016		<0.003				<0.003	<0.003	<0.003	
8/16/2016	<0.003								
8/17/2016			<0.003						
8/18/2016									<0.003
10/6/2016		<0.003							
10/7/2016	<0.003		<0.003	<0.003	<0.003	<0.003	<0.003		
10/10/2016								<0.003	<0.003
12/5/2016		<0.003							
12/6/2016	<0.003			<0.003	<0.003	<0.003			
12/7/2016							<0.003	<0.003	
12/8/2016			<0.003						<0.003
2/15/2017		<0.003							
2/16/2017	<0.003			<0.003	<0.003	<0.003	<0.003		
2/17/2017								<0.003	<0.003
2/21/2017			<0.003						
4/18/2017	<0.003	<0.003		<0.003					
4/19/2017					<0.003	<0.003	8E-05 (J)	<0.003	<0.003
4/21/2017			<0.003						
5/30/2017				<0.003	<0.003				
6/1/2017						9E-05 (J)	7E-05 (J)	<0.003	<0.003
6/2/2017	<0.003	<0.003							
6/6/2017			<0.003						
6/15/2017			<0.003						
7/12/2017	<0.003								
7/13/2017		<0.003							
7/14/2017				<0.003	<0.003	<0.003	<0.003		
7/18/2017								<0.003	<0.003
7/19/2017			<0.003						
3/27/2018	<0.003			<0.003	<0.003	<0.003	<0.003		
3/28/2018		<0.003						<0.003	<0.003
3/29/2018			<0.003						
2/25/2019				8.7E-05 (J)					
2/27/2019					<0.003	0.00011 (J)		<0.003	
2/28/2019	<0.003	7.6E-05 (J)							
3/1/2019							<0.003		
3/6/2019			<0.003						
4/1/2019		<0.003							
4/2/2019	<0.003			6.3E-05 (J)	<0.003	5.2E-05 (J)			
4/3/2019							<0.003	<0.003	<0.003
4/4/2019			<0.003						
9/25/2019	<0.003	<0.003	<0.003						
9/26/2019				8E-05 (J)	<0.003	<0.003	<0.003	<0.003	
9/30/2019									<0.003
Mean	0.003	0.002756	0.003	0.002269	0.003	0.002271	0.002513	0.003	0.003
Std. Dev.	0	0.0008441	0	0.001322	0	0.001319	0.001139	0	0
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.003	7.6E-05	0.003	8E-05	0.003	9E-05	8E-05	0.003	0.003

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.003
6/7/2016							<0.003	
6/8/2016	<0.003			<0.003		<0.003		
6/9/2016		<0.003	<0.003					
8/10/2016							<0.003	
8/11/2016						<0.003		<0.003
8/15/2016				<0.003				
8/18/2016	<0.003	<0.003	<0.003					
10/4/2016							<0.003	
10/5/2016								<0.003
10/6/2016						<0.003		
10/10/2016	<0.003	<0.003	<0.003	<0.003				
12/2/2016							<0.003	
12/5/2016								<0.003
12/6/2016						<0.003		
12/7/2016		<0.003	<0.003					
12/8/2016	<0.003			<0.003				
1/23/2017					<0.003			
2/7/2017					<0.003			
2/14/2017							<0.003	
2/15/2017						<0.003		<0.003
2/17/2017	<0.003							
2/20/2017		<0.003	<0.003	<0.003				
3/27/2017					<0.003			
4/14/2017							<0.003	
4/17/2017					<0.003			<0.003
4/18/2017						<0.003		
4/19/2017		<0.003	<0.003					
4/20/2017	<0.003			<0.003				
5/22/2017					<0.003			
5/26/2017							<0.003	<0.003
6/1/2017				<0.003				
6/2/2017						<0.003		
6/5/2017	<0.003	<0.003	<0.003		<0.003			
7/10/2017							<0.003	
7/11/2017					<0.003			<0.003
7/14/2017						<0.003		
7/17/2017		<0.003	<0.003	<0.003				
7/19/2017	<0.003							
8/23/2017					<0.003			
3/26/2018					<0.003		<0.003	
3/27/2018						<0.003		<0.003
3/28/2018				<0.003				
3/29/2018	<0.003	<0.003	<0.003					
2/25/2019							<0.003	
2/28/2019						<0.003		
3/1/2019	0.00012 (J)	<0.003	<0.003	<0.003	<0.003			
4/1/2019							<0.003	<0.003
4/2/2019					<0.003	<0.003		
4/3/2019	6.7E-05 (J)	<0.003	<0.003					
4/4/2019				<0.003				
9/24/2019						<0.003	<0.003	<0.003

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	9.9E-05 (J)	<0.003			<0.003			
9/30/2019			9.3E-05 (J)	<0.003				
Mean	0.002274	0.003	0.002758	0.003	0.003	0.003	0.003	0.003
Std. Dev.	0.001314	0	0.0008392	0	0	0	0	0
Upper Lim.	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Lower Lim.	9.9E-05	0.003	9.3E-05	0.003	0.003	0.003	0.003	0.003

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.0025	<0.0025		0.0011 (J)	<0.0025				
6/8/2016						0.00063 (J)	<0.0025	<0.0025	<0.0025
6/10/2016			<0.0025						
8/11/2016				0.0011	0.0001 (J)				
8/12/2016		<0.0025				0.0004 (J)	<0.0025	<0.0025	
8/16/2016	<0.0025								
8/17/2016			<0.0025						
8/18/2016									<0.0025
10/6/2016		<0.0025							
10/7/2016	<0.0025		<0.0025	0.0012	0.0002 (J)	0.0008 (J)	0.0001 (J)		
10/10/2016								<0.0025	<0.0025
12/5/2016		<0.0025							
12/6/2016	<0.0025			0.0012	0.0001 (J)	0.0006 (J)			
12/7/2016							<0.0025	<0.0025	
12/8/2016			<0.0025						<0.0025
2/15/2017		<0.0025							
2/16/2017	<0.0025			0.0015	0.0001 (J)	0.0002 (J)	<0.0025		
2/17/2017								8E-05 (J)	<0.0025
2/21/2017			<0.0025						
4/18/2017	<0.0025	<0.0025		0.0012					
4/19/2017					0.0001 (J)	9E-05 (J)	<0.0025	<0.0025	<0.0025
4/21/2017			<0.0025						
5/30/2017				0.0011	0.0002 (J)				
6/1/2017						0.0003 (J)	0.0001 (J)	<0.0025	<0.0025
6/2/2017	<0.0025	<0.0025							
6/6/2017			<0.0025						
6/15/2017			<0.0025						
7/12/2017	<0.0025								
7/13/2017		<0.0025							
7/14/2017				0.0012	0.0002 (J)	0.0002 (J)	<0.0025		
7/18/2017								<0.0025	<0.0025
7/19/2017			<0.0025						
3/27/2018	<0.0025			0.0013	<0.0025	<0.0025	<0.0025		
3/28/2018		<0.0025						<0.0025	<0.0025
3/29/2018			<0.0025						
6/12/2018				0.0011					
6/13/2018								<0.0025	
6/14/2018	<0.0025	<0.0025			0.00015 (J)	<0.0025			<0.0025
6/15/2018			<0.0025				<0.0025		
10/17/2018		<0.0025			<0.0025				
10/18/2018	<0.0025			0.0012		0.00032 (J)			
10/19/2018			<0.0025				<0.0025		<0.0025
10/22/2018								<0.0025	
2/25/2019				0.0016					
2/27/2019					<0.0025	<0.0025		<0.0025	
2/28/2019	<0.0025	<0.0025							
3/1/2019							<0.0025		
3/6/2019			<0.0025						
4/1/2019		<0.0025							
4/2/2019	<0.0025			0.0014	<0.0025	7.3E-05 (J)			
4/3/2019							<0.0025	<0.0025	<0.0025
4/4/2019			<0.0025						

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	<0.0025	<0.0025	<0.0025						
9/26/2019				0.0017 (J)	0.00015 (J)	<0.0025	0.0002 (J)	<0.0025	
9/30/2019									<0.0025
Mean	0.0025	0.0025	0.0025	0.001279	0.0009857	0.0009724	0.001993	0.002327	0.0025
Std. Dev.	0	0	0	0.0001968	0.001172	0.001023	0.001008	0.0006468	0
Upper Lim.	0.0025	0.0025	0.0025	0.001418	0.0025	0.0004936	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0025	0.0025	0.001139	0.0001	0.0001597	0.0002	8E-05	0.0025

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.0025
6/7/2016							<0.0025	
6/8/2016	<0.0025			<0.0025		<0.0025		
6/9/2016		<0.0025	0.00052 (J)					
8/10/2016							<0.0025	
8/11/2016						<0.0025		<0.0025
8/15/2016				<0.0025				
8/18/2016	<0.0025	<0.0025	0.0009 (J)					
10/4/2016							<0.0025	
10/5/2016								<0.0025
10/6/2016						<0.0025		
10/10/2016	<0.0025	<0.0025	0.0017	<0.0025				
12/2/2016							<0.0025	
12/5/2016								<0.0025
12/6/2016						<0.0025		
12/7/2016		<0.0025	0.0004 (J)					
12/8/2016	0.0002 (J)			<0.0025				
1/23/2017					0.0003 (J)			
2/7/2017					0.0006 (J)			
2/14/2017							<0.0025	
2/15/2017						<0.0025		<0.0025
2/17/2017	<0.0025							
2/20/2017		<0.0025	0.0028	<0.0025				
3/27/2017					0.0003 (J)			
4/14/2017							<0.0025	
4/17/2017					0.0002 (J)			<0.0025
4/18/2017						<0.0025		
4/19/2017		<0.0025	0.0035					
4/20/2017	<0.0025			<0.0025				
5/22/2017					0.0003 (J)			
5/26/2017							<0.0025	<0.0025
6/1/2017				<0.0025				
6/2/2017						<0.0025		
6/5/2017	<0.0025	<0.0025	0.0035		0.0003 (J)			
7/10/2017							<0.0025	
7/11/2017					0.0005 (J)			<0.0025
7/14/2017						<0.0025		
7/17/2017		<0.0025	0.0037	<0.0025				
7/19/2017	<0.0025							
8/23/2017					0.0004 (J)			
3/26/2018					<0.0025		<0.0025	
3/27/2018						<0.0025		<0.0025
3/28/2018				<0.0025				
3/29/2018	<0.0025	<0.0025	0.0063					
6/12/2018							<0.0025	<0.0025
6/13/2018		<0.0025	0.0053			<0.0025		
6/14/2018	<0.0025			<0.0025				
6/15/2018					0.0002 (J)			
10/16/2018							<0.0025	
10/17/2018								<0.0025
10/18/2018						<0.0025		
10/22/2018	<0.0025	<0.0025	0.0053	<0.0025	<0.0025			

Confidence Interval

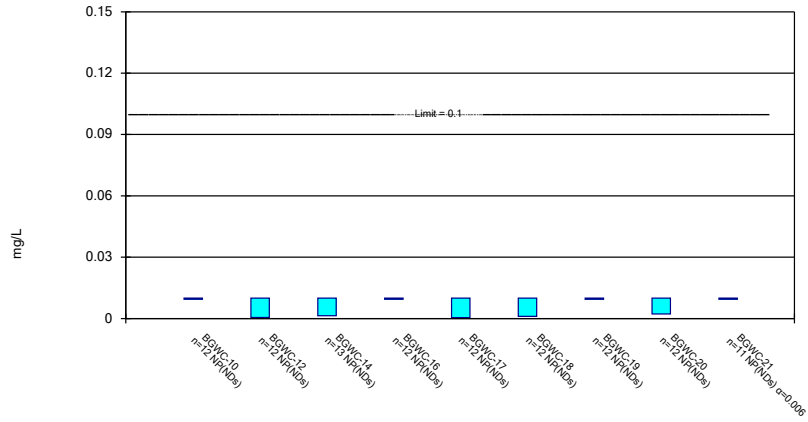
Constituent: Cadmium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.0025	
2/28/2019						<0.0025		
3/1/2019	0.00013 (J)	0.00019 (J)	0.0058	<0.0025	<0.0025			
4/1/2019							<0.0025	<0.0025
4/2/2019					7.9E-05 (J)	<0.0025		
4/3/2019	<0.0025	<0.0025	0.0053					
4/4/2019				<0.0025				
9/24/2019						<0.0025	<0.0025	<0.0025
9/27/2019	<0.0025	<0.0025			<0.0025			
9/30/2019			0.0075	<0.0025				
Mean	0.002166	0.002335	0.003751	0.0025	0.0009414	0.0025	0.0025	0.0025
Std. Dev.	0.000848	0.0006174	0.00227	0	0.001031	0	0	0
Upper Lim.	0.0025	0.0025	0.005359	0.0025	0.0003275	0.0025	0.0025	0.0025
Lower Lim.	0.0002	0.00019	0.002144	0.0025	0.0001083	0.0025	0.0025	0.0025

Non-Parametric Confidence Interval

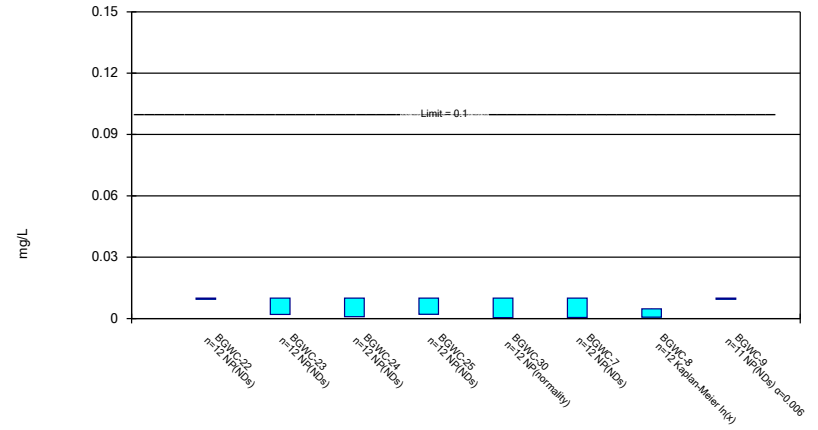
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Chromium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

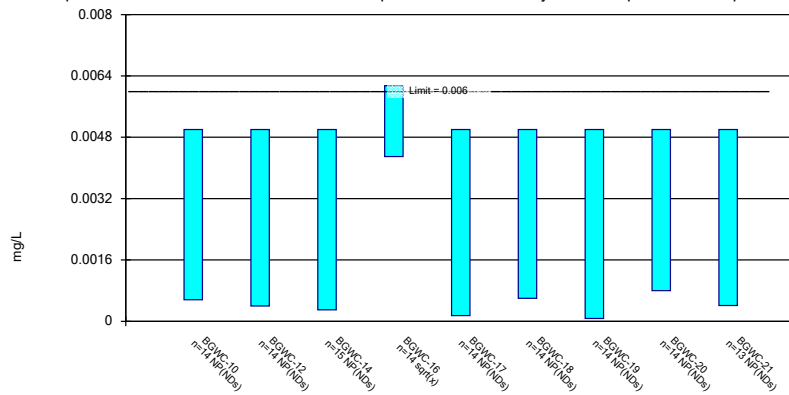
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Chromium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

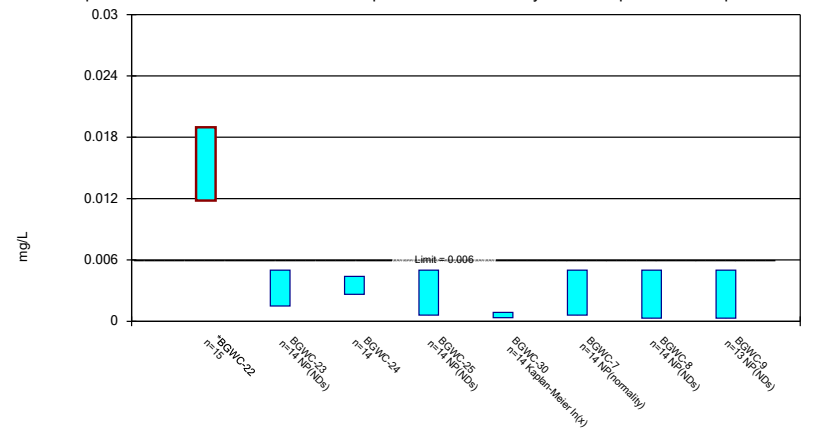
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Cobalt Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		<0.01	<0.01				
6/8/2016						<0.01	<0.01	<0.01	<0.01
6/10/2016			<0.01						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		0.0014 (J)	<0.01	<0.01	0.0011 (J)	<0.01		
10/10/2016								<0.01	<0.01
12/5/2016		<0.01							
12/6/2016	<0.01			<0.01	<0.01	<0.01			
12/7/2016							<0.01	<0.01	
12/8/2016			<0.01						<0.01
2/15/2017		<0.01							
2/16/2017	<0.01			<0.01	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			<0.01						
4/18/2017	<0.01	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	0.0003 (J)							
6/6/2017			<0.01						
6/15/2017			<0.01						
7/12/2017	<0.01								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								<0.01	<0.01
7/19/2017			<0.01						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		0.0048 (J)	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		<0.01							
4/2/2019	<0.01			<0.01	0.00044 (J)	<0.01			
4/3/2019							<0.01	0.00088 (J)	<0.01
4/4/2019			0.00057 (J)						
9/25/2019	<0.01	0.00055 (J)	<0.01						
9/26/2019				<0.01	<0.01	<0.01	<0.01	0.0022 (J)	
9/30/2019									<0.01
Mean	0.01	0.008404	0.008613	0.01	0.009203	0.009258	0.01	0.008157	0.01
Std. Dev.	0	0.003727	0.00339	0	0.00276	0.002569	0	0.003441	0
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.01	0.00055	0.0014	0.01	0.00044	0.0011	0.01	0.0022	0.01

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.01
6/7/2016							<0.01	
6/8/2016	<0.01			<0.01		<0.01		
6/9/2016		<0.01	<0.01					
8/10/2016							0.0052 (J)	
8/11/2016						<0.01		<0.01
8/15/2016				<0.01				
8/18/2016	<0.01	<0.01	<0.01					
10/4/2016							0.0015 (J)	
10/5/2016								0.002 (J)
10/6/2016						<0.01		
10/10/2016	<0.01	<0.01	0.0009 (J)	<0.01				
12/2/2016							0.0013 (J)	
12/5/2016								<0.01
12/6/2016						<0.01		
12/7/2016		0.002 (J)	<0.01					
12/8/2016	<0.01			<0.01				
1/23/2017					0.001 (J)			
2/7/2017					<0.01			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	<0.01							
2/20/2017		<0.01	<0.01	<0.01				
3/27/2017					<0.01			
4/14/2017							0.0011 (J)	
4/17/2017					<0.01			<0.01
4/18/2017						<0.01		
4/19/2017		<0.01	<0.01					
4/20/2017	<0.01			<0.01				
5/22/2017					0.0004 (J)			
5/26/2017							0.0008 (J)	<0.01
6/1/2017				<0.01				
6/2/2017						<0.01		
6/5/2017	<0.01	<0.01	<0.01		0.0004 (J)			
7/10/2017							0.0009 (J)	
7/11/2017					0.0012 (J)			<0.01
7/14/2017						<0.01		
7/17/2017		<0.01	<0.01	<0.01				
7/19/2017	<0.01							
8/23/2017					0.0009 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	<0.01	<0.01	<0.01					
2/25/2019							<0.01	
2/28/2019						<0.01		
3/1/2019	<0.01	0.0033 (J)	<0.01	<0.01	<0.01			
4/1/2019							0.00091 (J)	<0.01
4/2/2019					0.00095 (J)	<0.01		
4/3/2019	<0.01	0.00057 (J)	<0.01					
4/4/2019				<0.01				
9/24/2019						0.00055 (J)	0.063	<0.01

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	<0.01	<0.01			0.00056 (J)			
9/30/2019			<0.01	0.0021 (J)				
Mean	0.01	0.007989	0.009242	0.009342	0.004617	0.009212	0.009559	0.009273
Std. Dev.	0	0.003684	0.002627	0.002281	0.004757	0.002728	0.01734	0.002412
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.00473	0.01
Lower Lim.	0.01	0.002	0.0009	0.0021	0.0004	0.00055	0.00071	0.01

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.005	<0.005		0.0037	<0.005				
6/8/2016						0.00071 (J)	<0.005	<0.005	0.00041 (J)
6/10/2016			<0.005						
8/11/2016				0.0039 (J)	<0.005				
8/12/2016		<0.005				0.0006 (J)	<0.005	<0.005	
8/16/2016	<0.005								
8/17/2016			<0.005						
8/18/2016									<0.005
10/6/2016		<0.005							
10/7/2016	<0.005		<0.005	0.0043 (J)	<0.005	0.0005 (J)	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		0.0006 (J)							
12/6/2016	<0.005			0.005 (J)	<0.005	0.0009 (J)			
12/7/2016							<0.005	0.0008 (J)	
12/8/2016			<0.005						0.0006 (J)
2/15/2017		<0.005							
2/16/2017	<0.005			0.0054 (J)	<0.005	<0.005	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	<0.005	<0.005		0.0054 (J)					
4/19/2017					<0.005	<0.005	<0.005	<0.005	<0.005
4/21/2017			<0.005						
5/30/2017				0.0045 (J)	<0.005				
6/1/2017						<0.005	<0.005	<0.005	<0.005
6/2/2017	<0.005	<0.005							
6/6/2017			<0.005						
6/15/2017			0.0003 (J)						
7/12/2017	<0.005								
7/13/2017		0.0003 (J)							
7/14/2017				0.0049 (J)	<0.005	<0.005	<0.005		
7/18/2017								<0.005	0.0004 (J)
7/19/2017			0.0003 (J)						
3/27/2018	<0.005			<0.005	<0.005	<0.005	<0.005		
3/28/2018		<0.005						<0.005	<0.005
3/29/2018			<0.005						
6/12/2018				0.0048 (J)					
6/13/2018								<0.005	
6/14/2018	<0.005	<0.005			<0.005	<0.005			<0.005
6/15/2018			<0.005				<0.005		
10/17/2018		<0.005			<0.005				
10/18/2018	<0.005			0.0047 (J)		<0.005			
10/19/2018			<0.005				<0.005		<0.005
10/22/2018								<0.005	
2/25/2019				0.0071 (J)					
2/27/2019					<0.005	<0.005		<0.005	
2/28/2019	<0.005	<0.005							
3/1/2019							<0.005		
3/6/2019			<0.005						
4/1/2019		0.00034 (J)							
4/2/2019	0.00027 (J)			0.0056 (J)	0.00015 (J)	0.00012 (J)			
4/3/2019							7.2E-05 (J)	0.00024 (J)	0.00064 (J)
4/4/2019			0.00015 (J)						

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	0.00056 (J)	0.0004 (J)	<0.005						
9/26/2019				0.0093	<0.005	<0.005	<0.005	<0.005	
9/30/2019									0.0004 (J)
Mean	0.004345	0.003689	0.00405	0.005257	0.004654	0.003416	0.004648	0.00436	0.003265
Std. Dev.	0.001666	0.002153	0.001967	0.001426	0.001296	0.002211	0.001317	0.001631	0.002285
Upper Lim.	0.005	0.005	0.005	0.006146	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00056	0.0004	0.0003	0.004298	0.00015	0.0006	7.2E-05	0.0008	0.00041

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.005
6/7/2016							0.00013 (J)	
6/8/2016	0.0079			<0.005		0.00081 (J)		
6/9/2016		<0.005	0.0026					
8/10/2016							0.0003 (J)	
8/11/2016						0.0007 (J)		0.0003 (J)
8/15/2016				<0.005				
8/18/2016	0.0109	<0.005	0.0021 (J)					
10/4/2016							<0.005	
10/5/2016								<0.005
10/6/2016						<0.005		
10/10/2016	0.011	<0.005	0.0018 (J)	<0.005				
12/2/2016							<0.005	
12/5/2016								0.0006 (J)
12/6/2016						0.0009 (J)		
12/7/2016		0.0015 (J)	0.0018 (J)					
12/8/2016	0.013			0.0006 (J)				
1/23/2017					0.0012 (J)			
2/7/2017					0.0008 (J)			
2/14/2017							<0.005	
2/15/2017						<0.005		<0.005
2/17/2017	0.0122							
2/20/2017		<0.005	0.0027 (J)	<0.005				
3/27/2017					0.001 (J)			
4/14/2017							<0.005	
4/17/2017					0.0009 (J)			<0.005
4/18/2017						0.0005 (J)		
4/19/2017		<0.005	0.0032 (J)					
4/20/2017	0.0116			<0.005				
5/22/2017					0.0008 (J)			
5/26/2017							<0.005	<0.005
6/1/2017				<0.005				
6/2/2017						0.0006 (J)		
6/5/2017	0.0112	<0.005	0.0034 (J)		0.0008 (J)			
7/10/2017							<0.005	
7/11/2017					0.0008 (J)			<0.005
7/14/2017						0.0006 (J)		
7/17/2017		<0.005	0.0033 (J)	<0.005				
7/19/2017	0.0131							
8/23/2017					0.0006 (J)			
3/26/2018					<0.005		<0.005	
3/27/2018						<0.005		<0.005
3/28/2018				<0.005				
3/29/2018	0.016	<0.005	<0.005					
6/12/2018							<0.005	<0.005
6/13/2018		<0.005	0.0039 (J)			0.00068 (J)		
6/14/2018	0.017			<0.005				
6/15/2018					<0.005			
10/16/2018							<0.005	
10/17/2018								<0.005
10/18/2018						<0.005		
10/22/2018	0.021	<0.005	0.0043 (J)	<0.005	<0.005			

Confidence Interval

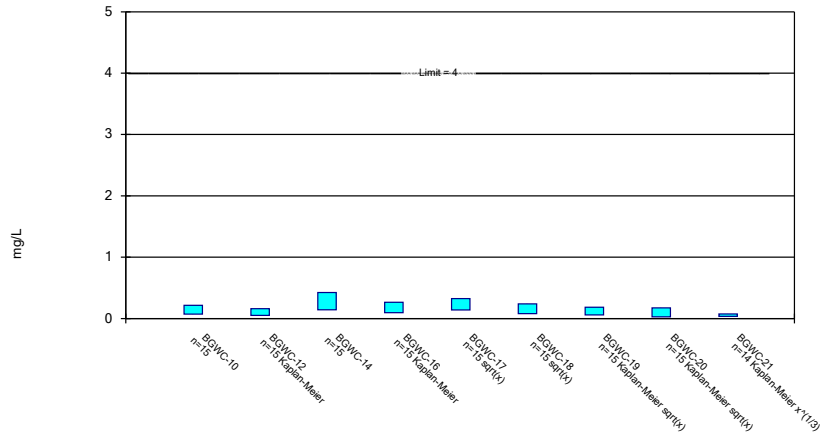
Constituent: Cobalt (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.005	
2/28/2019						0.00067 (J)		
3/1/2019	0.017	<0.005	0.0055 (J)	<0.005	<0.005			
4/1/2019							5.6E-05 (J)	0.00024 (J)
4/2/2019					0.00022 (J)	0.00094 (J)		
4/3/2019	0.019	0.00058 (J)	0.0048 (J)					
4/4/2019				0.00022 (J)				
5/2/2019	0.023 (J)							
9/24/2019						0.00078 (J)	0.0012 (J)	<0.005
9/27/2019	0.027	0.00034 (J)			<0.005			
9/30/2019			0.0048	<0.005				
Mean	0.01539	0.004101	0.003514	0.004344	0.002294	0.001941	0.003692	0.003934
Std. Dev.	0.005287	0.001802	0.001233	0.001668	0.002104	0.002011	0.002161	0.002028
Upper Lim.	0.01898	0.005	0.004388	0.005	0.00087	0.005	0.005	0.005
Lower Lim.	0.01181	0.0015	0.002641	0.0006	0.0003613	0.0006	0.0003	0.0003

Parametric Confidence Interval

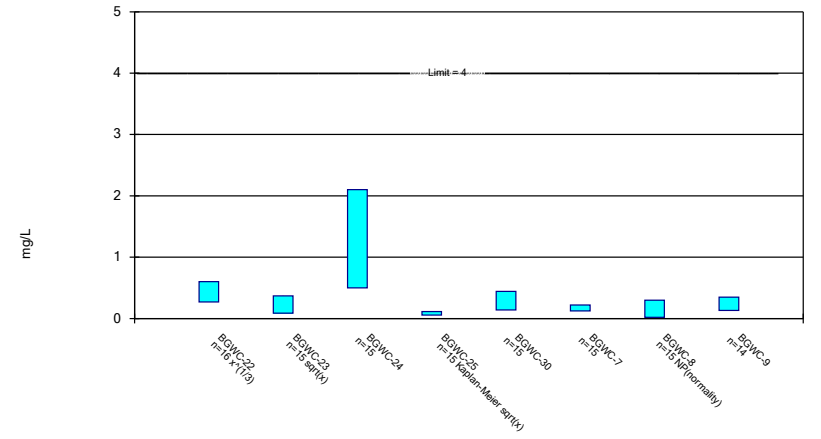
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Fluoride Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

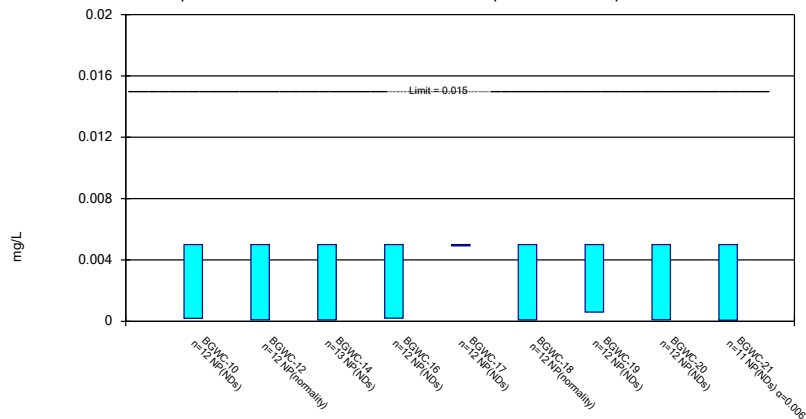
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Fluoride Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

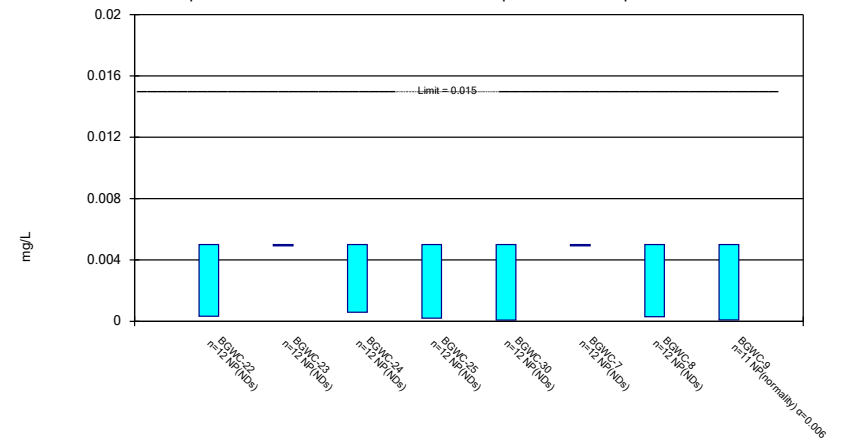
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.09 (J)	<0.3		<0.3	0.15 (J)				
6/8/2016						0.1 (J)	<0.3	0.09 (J)	<0.3
6/10/2016			0.23						
8/11/2016				0.12 (J)	0.3 (J)				
8/12/2016		0.08 (J)				0.39	0.2 (J)	0.04 (J)	
8/16/2016	0.09 (J)								
8/17/2016			0.12 (J)						
8/18/2016									0.09 (J)
10/6/2016		0.06 (J)							
10/7/2016	0.17 (J)		0.13 (J)	0.08 (J)	0.14 (J)	0.16 (J)	0.07 (J)		
10/10/2016								0.06 (J)	0.04 (J)
12/5/2016		0.12 (J)							
12/6/2016	0.16 (J)			0.24 (J)	0.19 (J)	0.32			
12/7/2016							0.09 (J)	0.07 (J)	
12/8/2016			0.31						0.08 (J)
2/15/2017		0.33							
2/16/2017	0.38			0.31	0.51	0.38	0.6		
2/17/2017								0.06 (J)	0.08 (J)
2/21/2017			0.35						
4/18/2017	0.12 (J)	0.006 (J)		0.02 (J)					
4/19/2017					0.18 (J)	0.08 (J)	0.09 (J)	0.005 (J)	0.04 (J)
4/21/2017			0.04 (J)						
5/30/2017				0.51	0.15 (J)				
6/1/2017						0.09 (J)	0.05 (J)	0.65	0.03 (J)
6/2/2017	0.03 (J)	0.04 (J)							
6/6/2017			0.36						
7/12/2017	0.15 (J)								
7/13/2017		0.17 (J)							
7/14/2017				0.14 (J)	0.16 (J)	0.06 (J)	0.08 (J)		
7/18/2017								0.36	0.08 (J)
7/19/2017			0.18 (J)						
10/10/2017		0.08 (J)							
10/11/2017	0.07 (J)			0.29 (J)	0.64	0.14 (J)	0.11 (J)	<0.3	
10/12/2017			0.08 (J)						0.12 (J)
3/27/2018	<0.3			<0.3	0.33	<0.3	<0.3		
3/28/2018		<0.3						<0.3	<0.3
3/29/2018			<0.3						
6/12/2018				0.061 (J)					
6/13/2018								0.038 (J)	
6/14/2018	0.046 (J)	<0.3			0.11 (J)	0.095 (J)			<0.3
6/15/2018			0.41				0.07 (J)		
10/17/2018		<0.3			<0.3				
10/18/2018	<0.3			<0.3		0.054 (J)			
10/19/2018			<0.3				0.17 (J)		<0.3
10/22/2018								<0.3	
2/25/2019				0.13 (J)					
2/27/2019					0.26 (J)	<0.3		0.13 (J)	
2/28/2019	0.14 (J)	0.18 (J)							
3/1/2019							0.14 (J)		
3/6/2019			0.88						
4/1/2019		0.065 (J)							
4/2/2019	0.044 (J)			0.23 (J)	0.14 (J)	0.044 (J)			

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
4/3/2019							0.051 (J)	0.072 (J)	0.032 (J)
4/4/2019			0.44						
9/25/2019	0.075 (J)	0.13 (J)	0.11 (J)						
9/26/2019				<0.3	0.071 (J)	0.052 (J)	<0.3	<0.3	
9/30/2019									0.066 (J)
Mean	0.1443	0.1641	0.2827	0.2221	0.2421	0.171	0.1747	0.185	0.1327
Std. Dev.	0.1051	0.1134	0.2074	0.1289	0.1565	0.1282	0.1488	0.1781	0.1125
Upper Lim.	0.2155	0.16	0.4232	0.2657	0.3247	0.2397	0.1833	0.1729	0.07347
Lower Lim.	0.07312	0.05082	0.1421	0.09608	0.1395	0.08042	0.0578	0.02833	0.03541

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.12 (J)
6/7/2016							<0.3	
6/8/2016	0.43			0.14 (J)		0.19 (J)		
6/9/2016		0.12 (J)	<0.3					
8/10/2016							0.07 (J)	
8/11/2016						0.15 (J)		0.27 (J)
8/15/2016				0.08 (J)				
8/18/2016	0.3 (J)	0.08 (J)	0.24 (J)					
10/4/2016							0.07 (J)	
10/5/2016								0.12 (J)
10/6/2016						0.17 (J)		
10/10/2016	0.32	0.09 (J)	0.3	0.1 (J)				
12/2/2016							0.09 (J)	
12/5/2016								0.26 (J)
12/6/2016						0.22 (J)		
12/7/2016		0.08 (J)	0.05 (J)					
12/8/2016	0.26 (J)			0.06 (J)				
1/23/2017					0.06 (J)			
2/7/2017					0.09 (J)			
2/14/2017							0.02 (J)	
2/15/2017						0.18 (J)		0.46
2/17/2017	0.39							
2/20/2017		0.09 (J)	0.65	0.16 (J)				
3/27/2017					0.09 (J)			
4/14/2017							0.02 (J)	
4/17/2017					0.36			0.14 (J)
4/18/2017						0.11 (J)		
4/19/2017		0.03 (J)	0.21 (J)					
4/20/2017	0.34			0.02 (J)				
5/22/2017					0.05 (J)			
5/26/2017							0.02 (J)	0.13 (J)
6/1/2017				0.04 (J)				
6/2/2017						0.07 (J)		
6/5/2017	0.29 (J)	<0.3	0.05 (J)		0.32			
7/10/2017							0.03 (J)	
7/11/2017					0.13 (J)			0.2 (J)
7/14/2017						0.23 (J)		
7/17/2017		0.09 (J)	2.5	0.07 (J)				
7/19/2017	0.33							
8/23/2017					0.17 (J)			
10/10/2017					0.35		<0.3	0.61
10/11/2017		0.09 (J)	1.8	0.11 (J)		0.1 (J)		
10/12/2017	0.31							
3/26/2018					0.75		<0.3	
3/27/2018								0.36
3/28/2018				<0.3				
3/29/2018	0.58	<0.3	2					
6/12/2018							0.061 (J)	0.13 (J)
6/13/2018		0.71	3.1			0.25 (J)		
6/14/2018	0.15 (J)			<0.3				
6/15/2018					0.51			
10/16/2018							<0.3	

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
10/17/2018								0.13 (J)
10/18/2018						0.047 (J)		
10/22/2018	0.78	0.81	3.1	<0.3	0.44			
2/25/2019							<0.3	
2/28/2019						0.23 (J)		
3/1/2019	0.34	0.38	1	0.12 (J)	0.24 (J)			
4/1/2019							<0.3	0.33
4/2/2019					0.68	0.22 (J)		
4/3/2019	0.23 (J)	0.1 (J)	3					
4/4/2019				<0.3				
5/2/2019	1.4							
9/24/2019						0.12 (J)	<0.3	0.096 (J)
9/27/2019	1	0.54			0.13 (J)			
9/30/2019			1.2	0.065 (J)				
Mean	0.4656	0.254	1.3	0.1443	0.2913	0.1725	0.1654	0.2397
Std. Dev.	0.3295	0.2506	1.18	0.1036	0.224	0.07193	0.1318	0.1536
Upper Lim.	0.601	0.3697	2.1	0.1133	0.4431	0.2212	0.3	0.3485
Lower Lim.	0.2697	0.08844	0.5001	0.05639	0.1395	0.1237	0.02	0.1309

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.005	<0.005		<0.005	<0.005				
6/8/2016						<0.005	<0.005	<0.005	<0.005
6/10/2016			<0.005						
8/11/2016				<0.005	<0.005				
8/12/2016		0.0001 (J)				0.0001 (J)	<0.005	<0.005	
8/16/2016	<0.005								
8/17/2016			<0.005						
8/18/2016									<0.005
10/6/2016		0.0002 (J)							
10/7/2016	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005		
10/10/2016								<0.005	<0.005
12/5/2016		0.0003 (J)							
12/6/2016	<0.005			<0.005	<0.005	0.0001 (J)			
12/7/2016							<0.005	<0.005	
12/8/2016			<0.005						<0.005
2/15/2017		<0.005							
2/16/2017	<0.005			<0.005	<0.005	0.0002 (J)	<0.005		
2/17/2017								<0.005	<0.005
2/21/2017			<0.005						
4/18/2017	<0.005	<0.005		<0.005					
4/19/2017					<0.005	0.0001 (J)	0.0006 (J)	<0.005	<0.005
4/21/2017			<0.005						
5/30/2017				0.0001 (J)	<0.005				
6/1/2017						9E-05 (J)	<0.005	0.0001 (J)	<0.005
6/2/2017	<0.005	0.0001 (J)							
6/6/2017			<0.005						
6/15/2017			9E-05 (J)						
7/12/2017	<0.005								
7/13/2017		0.0001 (J)							
7/14/2017				0.0002 (J)	<0.005	0.0001 (J)	<0.005		
7/18/2017								<0.005	<0.005
7/19/2017			<0.005						
3/27/2018	<0.005			<0.005	<0.005	<0.005	<0.005		
3/28/2018		<0.005						<0.005	<0.005
3/29/2018			<0.005						
2/25/2019				<0.005					
2/27/2019					<0.005	<0.005		<0.005	
2/28/2019	<0.005	<0.005							
3/1/2019							<0.005		
3/6/2019			<0.005						
4/1/2019		<0.005							
4/2/2019	<0.005			<0.005	<0.005	8.1E-05 (J)			
4/3/2019							<0.005	<0.005	6.8E-05 (J)
4/4/2019			<0.005						
9/25/2019	0.00019 (J)	0.00063 (J)	<0.005						
9/26/2019				0.00034 (J)	<0.005	<0.005	<0.005	<0.005	
9/30/2019									7.3E-05 (J)
Mean	0.004599	0.002619	0.004622	0.003803	0.005	0.002148	0.004633	0.004592	0.004104
Std. Dev.	0.001389	0.002491	0.001362	0.002165	0	0.002518	0.00127	0.001415	0.001994
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00019	0.0001	9E-05	0.0002	0.005	9E-05	0.0006	0.0001	7.3E-05

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.005
6/7/2016							<0.005	
6/8/2016	<0.005			<0.005		<0.005		
6/9/2016		<0.005	0.00059 (J)					
8/10/2016							<0.005	
8/11/2016						<0.005		<0.005
8/15/2016				0.0005 (J)				
8/18/2016	<0.005	<0.005	<0.005					
10/4/2016							<0.005	
10/5/2016								0.0005 (J)
10/6/2016						<0.005		
10/10/2016	<0.005	<0.005	<0.005	<0.005				
12/2/2016							<0.005	
12/5/2016								0.0002 (J)
12/6/2016						<0.005		
12/7/2016		<0.005	<0.005					
12/8/2016	<0.005			0.0006 (J)				
1/23/2017					0.0003 (J)			
2/7/2017					0.0002 (J)			
2/14/2017							<0.005	
2/15/2017						<0.005		<0.005
2/17/2017	<0.005							
2/20/2017		<0.005	<0.005	0.0004 (J)				
3/27/2017					8E-05 (J)			
4/14/2017							<0.005	
4/17/2017					<0.005			0.0001 (J)
4/18/2017						<0.005		
4/19/2017		<0.005	<0.005					
4/20/2017	<0.005			0.0002 (J)				
5/22/2017					<0.005			
5/26/2017							0.0003 (J)	0.0001 (J)
6/1/2017				7E-05 (J)				
6/2/2017						<0.005		
6/5/2017	<0.005	<0.005	7E-05 (J)		<0.005			
7/10/2017							<0.005	
7/11/2017					8E-05 (J)			<0.005
7/14/2017						<0.005		
7/17/2017		<0.005	<0.005	<0.005				
7/19/2017	<0.005							
8/23/2017					<0.005			
3/26/2018					<0.005		<0.005	
3/27/2018						<0.005		<0.005
3/28/2018				<0.005				
3/29/2018	<0.005	<0.005	<0.005					
2/25/2019							<0.005	
2/28/2019						<0.005		
3/1/2019	0.00033 (J)	<0.005	<0.005	<0.005	<0.005			
4/1/2019							<0.005	9.2E-05 (J)
4/2/2019					<0.005	<0.005		
4/3/2019	<0.005	<0.005	<0.005					
4/4/2019				<0.005				
9/24/2019						<0.005	<0.005	5.6E-05 (J)

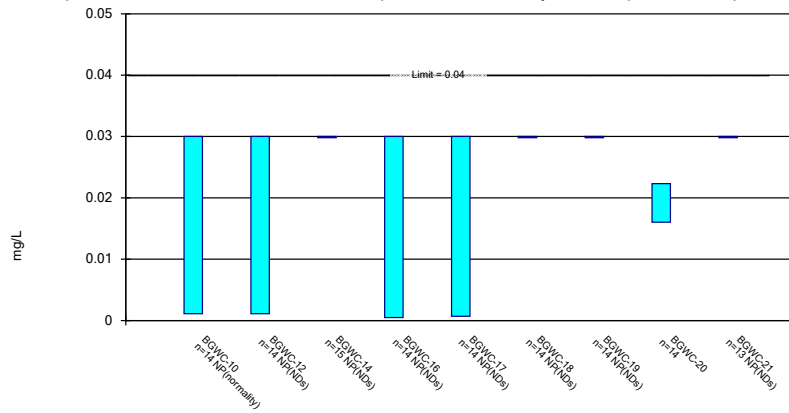
Confidence Interval

Constituent: Lead (mg/L) Analysis Run 12/12/2019 4:49 PM
Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	5.4E-05 (J)	<0.005			0.00018 (J)			
9/30/2019			<0.005	<0.005				
Mean	0.004199	0.005	0.004222	0.003064	0.002987	0.005	0.004608	0.002368
Std. Dev.	0.001872	0	0.001821	0.002396	0.002489	0	0.001357	0.002523
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.00033	0.005	0.00059	0.0002	8E-05	0.005	0.0003	9.2E-05

Parametric and Non-Parametric (NP) Confidence Interval

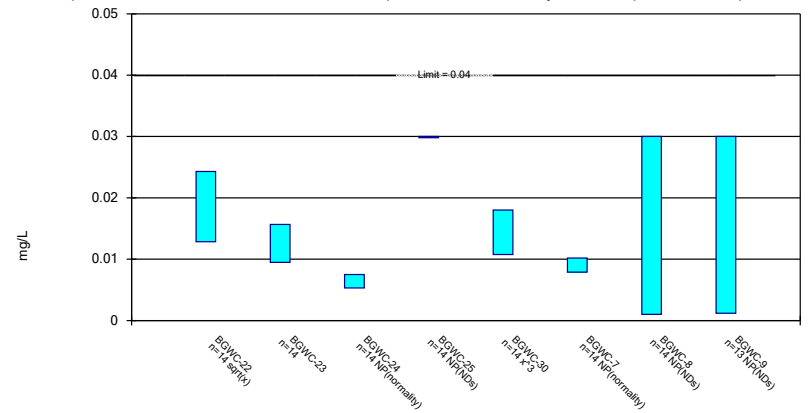
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lithium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

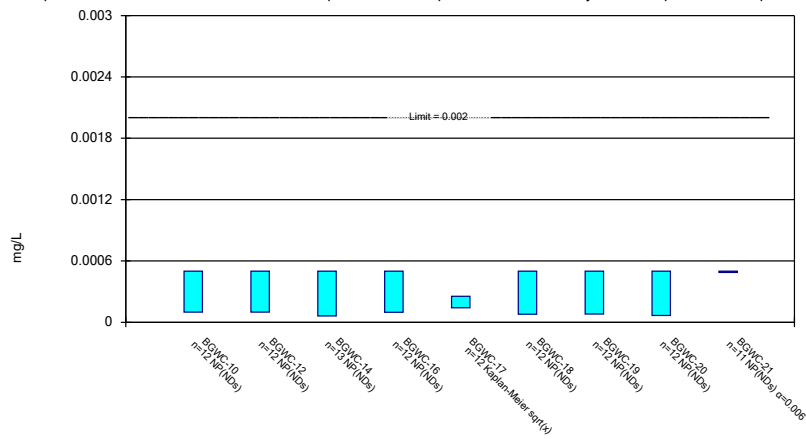
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Lithium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

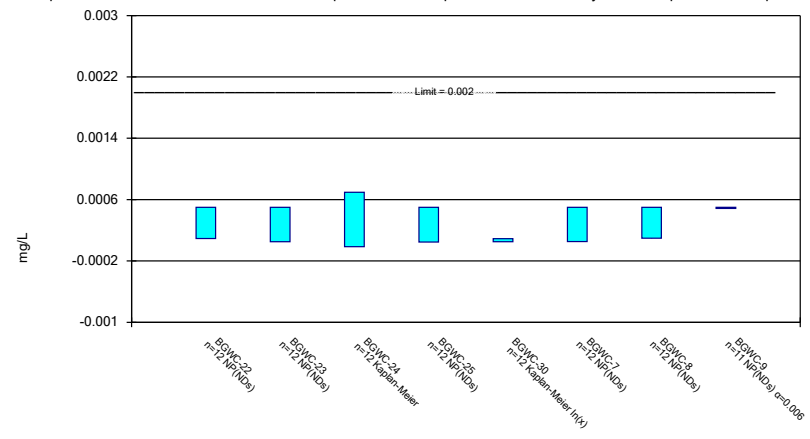
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Mercury Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Mercury Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0065	<0.03		<0.03	<0.03				
6/8/2016						<0.03	<0.03	0.016	<0.03
6/10/2016			<0.03						
8/11/2016				<0.03	<0.03				
8/12/2016		<0.03				<0.03	<0.03	0.0202 (J)	
8/16/2016	<0.03								
8/17/2016			<0.03						
8/18/2016									<0.03
10/6/2016		<0.03							
10/7/2016	<0.03		<0.03	<0.03	<0.03	<0.03	<0.03		
10/10/2016								0.0194 (J)	<0.03
12/5/2016		<0.03							
12/6/2016	<0.03			<0.03	<0.03	<0.03			
12/7/2016							<0.03	0.0265 (J)	
12/8/2016			<0.03						<0.03
2/15/2017		<0.03							
2/16/2017	<0.03			<0.03	<0.03	<0.03	<0.03		
2/17/2017								0.0253 (J)	<0.03
2/21/2017			<0.03						
4/18/2017	0.0011 (J)	<0.03		<0.03					
4/19/2017					<0.03	<0.03	<0.03	0.0233 (J)	<0.03
4/21/2017			<0.03						
5/30/2017				<0.03	<0.03				
6/1/2017						<0.03	<0.03	0.023 (J)	<0.03
6/2/2017	0.0011 (J)	<0.03							
6/6/2017			<0.03						
6/15/2017			<0.03						
7/12/2017	<0.03								
7/13/2017		<0.03							
7/14/2017				<0.03	<0.03	<0.03	<0.03		
7/18/2017								0.0207 (J)	<0.03
7/19/2017			<0.03						
3/27/2018	0.0025 (J)			<0.03	<0.03	<0.03	<0.03		
3/28/2018		<0.03						0.013 (J)	<0.03
3/29/2018			<0.03						
6/12/2018				<0.03					
6/13/2018								0.02 (J)	
6/14/2018	0.0011 (J)	<0.03			<0.03	<0.03			<0.03
6/15/2018			<0.03				<0.03		
10/17/2018		<0.03			<0.03				
10/18/2018	0.0016 (J)			<0.03		<0.03			
10/19/2018			<0.03				<0.03		<0.03
10/22/2018								0.016 (J)	
2/25/2019				<0.03					
2/27/2019					<0.03	<0.03		0.015 (J)	
2/28/2019	0.0017 (J)	0.0011 (J)							
3/1/2019							<0.03		
3/6/2019			<0.03						
4/1/2019		0.00078 (J)							
4/2/2019	0.0012 (J)			0.00049 (J)	0.00069 (J)	<0.03			
4/3/2019							<0.03	0.012 (J)	<0.03
4/4/2019			<0.03						

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	<0.03	0.001 (J)	<0.03						
9/26/2019				<0.03	<0.03	<0.03	<0.03	0.018	
9/30/2019									<0.03
Mean	0.01406	0.02378	0.03	0.02789	0.02791	0.03	0.03	0.01917	0.03
Std. Dev.	0.01439	0.01237	0	0.007887	0.007833	0	0	0.004433	0
Upper Lim.	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02231	0.03
Lower Lim.	0.0011	0.0011	0.03	0.00049	0.00069	0.03	0.03	0.01603	0.03

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.03
6/7/2016							<0.03	
6/8/2016	0.012			<0.03		0.0079		
6/9/2016		0.0074	0.0057					
8/10/2016							<0.03	
8/11/2016						0.0093 (J)		<0.03
8/15/2016				<0.03				
8/18/2016	0.0118 (J)	0.0078 (J)	0.0061 (J)					
10/4/2016							<0.03	
10/5/2016								<0.03
10/6/2016						0.0102 (J)		
10/10/2016	0.0137 (J)	0.0093 (J)	0.006 (J)	<0.03				
12/2/2016							<0.03	
12/5/2016								<0.03
12/6/2016						0.0094 (J)		
12/7/2016		0.0117 (J)	0.0066 (J)					
12/8/2016	0.0154 (J)			<0.03				
1/23/2017					0.0171 (J)			
2/7/2017					0.0196 (J)			
2/14/2017							<0.03	
2/15/2017						<0.03		<0.03
2/17/2017	0.0125 (J)							
2/20/2017		0.011 (J)	0.0053 (J)	<0.03				
3/27/2017					0.0192 (J)			
4/14/2017							<0.03	
4/17/2017					0.0169 (J)			0.0013 (J)
4/18/2017						0.0086 (J)		
4/19/2017		0.0105 (J)	0.0055 (J)					
4/20/2017	0.012 (J)			<0.03				
5/22/2017					0.0167 (J)			
5/26/2017							<0.03	0.0013 (J)
6/1/2017				<0.03				
6/2/2017						0.0102 (J)		
6/5/2017	0.0114 (J)	0.0108 (J)	0.0068 (J)		0.0177 (J)			
7/10/2017							<0.03	
7/11/2017					0.0203 (J)			<0.03
7/14/2017						0.0092 (J)		
7/17/2017		0.0095 (J)	<0.03	<0.03				
7/19/2017	0.0126 (J)							
8/23/2017					0.0182 (J)			
3/26/2018					0.0063 (J)		<0.03	
3/27/2018						0.0087 (J)		0.0014 (J)
3/28/2018				<0.03				
3/29/2018	0.021 (J)	0.014 (J)	0.0053 (J)					
6/12/2018							<0.03	0.0012 (J)
6/13/2018		0.014 (J)	0.0067 (J)			0.0084 (J)		
6/14/2018	0.024 (J)			<0.03				
6/15/2018					0.0049 (J)			
10/16/2018							0.001 (J)	
10/17/2018								<0.03
10/18/2018						0.0083 (J)		
10/22/2018	0.034 (J)	0.016 (J)	0.0075 (J)	<0.03	0.005 (J)			

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.03	
2/28/2019						0.0086 (J)		
3/1/2019	0.022 (J)	0.017 (J)	0.0068 (J)	<0.03	0.0044 (J)			
4/1/2019							<0.03	0.0012 (J)
4/2/2019					0.0041 (J)	0.0073 (J)		
4/3/2019	0.024 (J)	0.013 (J)	0.0048 (J)					
4/4/2019				<0.03				
9/24/2019						0.0083 (J)	<0.03	0.0011 (J)
9/27/2019	0.039	0.024			0.0012 (J)			
9/30/2019			0.0077 (J)	<0.03				
Mean	0.01896	0.01257	0.007914	0.03	0.01226	0.01031	0.02793	0.01673
Std. Dev.	0.008857	0.004355	0.006414	0	0.007282	0.005723	0.007751	0.01492
Upper Lim.	0.02429	0.01566	0.0075	0.03	0.01802	0.0102	0.03	0.03
Lower Lim.	0.01285	0.009487	0.0053	0.03	0.01075	0.0079	0.001	0.0012

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0001 (J)	0.0001 (J)		9.8E-05 (J)	0.00017 (J)				
6/8/2016						<0.0005	<0.0005	<0.0005	<0.0005
6/10/2016			<0.0005						
8/11/2016				<0.0005	0.00019 (J)				
8/12/2016		<0.0005				<0.0005	<0.0005	<0.0005	
8/16/2016	<0.0005								
8/17/2016			<0.0005						
8/18/2016									<0.0005
10/6/2016		<0.0005							
10/7/2016	<0.0005		<0.0005	<0.0005	0.00014 (J)	<0.0005	<0.0005		
10/10/2016								<0.0005	<0.0005
12/5/2016		<0.0005							
12/6/2016	<0.0005			<0.0005	0.00016 (J)	<0.0005			
12/7/2016							8E-05 (J)	<0.0005	
12/8/2016			<0.0005						<0.0005
2/15/2017		<0.0005							
2/16/2017	<0.0005			<0.0005	0.00017 (J)	<0.0005	<0.0005		
2/17/2017								<0.0005	<0.0005
2/21/2017			<0.0005						
4/18/2017	<0.0005	<0.0005		<0.0005					
4/19/2017					0.00014 (J)	<0.0005	<0.0005	<0.0005	<0.0005
4/21/2017			<0.0005						
5/30/2017				<0.0005	0.00023 (J)				
6/1/2017						<0.0005	<0.0005	<0.0005	<0.0005
6/2/2017	<0.0005	<0.0005							
6/6/2017			<0.0005						
6/15/2017			6.2E-05 (J)						
7/12/2017	<0.0005								
7/13/2017		<0.0005							
7/14/2017				<0.0005	0.00016 (J)	<0.0005	<0.0005		
7/18/2017								<0.0005	<0.0005
7/19/2017			<0.0005						
3/27/2018	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005		
3/28/2018		<0.0005						<0.0005	<0.0005
3/29/2018			<0.0005						
2/25/2019				<0.0005					
2/27/2019					0.00029 (J)	7.9E-05 (J)		6.6E-05 (J)	
2/28/2019	4.8E-05 (J)	5.8E-05 (J)							
3/1/2019							5E-05 (J)		
3/6/2019			<0.0005						
4/1/2019		<0.0005							
4/2/2019	<0.0005			<0.0005	0.0004	<0.0005			
4/3/2019							<0.0005	<0.0005	<0.0005
4/4/2019			<0.0005						
9/25/2019	<0.0005	<0.0005	<0.0005						
9/26/2019				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/30/2019									<0.0005
Mean	0.000429	0.0004298	0.0004663	0.0004665	0.0002542	0.0004649	0.0004275	0.0004638	0.0005
Std. Dev.	0.0001662	0.0001641	0.0001215	0.000116	0.0001369	0.0001215	0.0001694	0.0001253	0
Upper Lim.	0.0005	0.0005	0.0005	0.0005	0.0002546	0.0005	0.0005	0.0005	0.0005
Lower Lim.	0.0001	0.0001	6.2E-05	9.8E-05	0.0001412	7.9E-05	8E-05	6.6E-05	0.0005

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								8E-05 (J)
6/7/2016							9.7E-05 (J)	
6/8/2016	9.2E-05 (J)			<0.0005		<0.0005		
6/9/2016		<0.0005	<0.0005					
8/10/2016							<0.0005	
8/11/2016						<0.0005		<0.0005
8/15/2016				<0.0005				
8/18/2016	<0.0005	<0.0005	<0.0005					
10/4/2016							<0.0005	
10/5/2016								<0.0005
10/6/2016						<0.0005		
10/10/2016	<0.0005	<0.0005	4E-05 (J)	<0.0005				
12/2/2016							<0.0005	
12/5/2016								<0.0005
12/6/2016						<0.0005		
12/7/2016		5E-05 (J)	7E-05 (J)					
12/8/2016	<0.0005			<0.0005				
1/23/2017					8E-05 (J)			
2/7/2017					0.00011 (J)			
2/14/2017							<0.0005	
2/15/2017						<0.0005		<0.0005
2/17/2017	<0.0005							
2/20/2017		<0.0005	5E-05 (J)	<0.0005				
3/27/2017					8E-05 (J)			
4/14/2017							<0.0005	
4/17/2017					4E-05 (J)			<0.0005
4/18/2017						<0.0005		
4/19/2017		<0.0005	0.00016 (J)					
4/20/2017	<0.0005			<0.0005				
5/22/2017					<0.0005			
5/26/2017							<0.0005	<0.0005
6/1/2017				<0.0005				
6/2/2017						<0.0005		
6/5/2017	<0.0005	<0.0005	0.00013 (J)		6E-05 (J)			
7/10/2017							<0.0005	
7/11/2017					9.1E-05 (J)			<0.0005
7/14/2017						<0.0005		
7/17/2017		<0.0005	0.00013 (J)	<0.0005				
7/19/2017	<0.0005							
8/23/2017					5E-05 (J)			
3/26/2018					<0.0005		<0.0005	
3/27/2018						<0.0005		<0.0005
3/28/2018				<0.0005				
3/29/2018	<0.0005	<0.0005	<0.0005					
2/25/2019							<0.0005	
2/28/2019						5.3E-05 (J)		
3/1/2019	4.2E-05 (J)	4.4E-05 (J)	0.00093	4.7E-05 (J)	0.0001 (J)			
4/1/2019							<0.0005	<0.0005
4/2/2019					<0.0005	<0.0005		
4/3/2019	<0.0005	<0.0005	0.0013					
4/4/2019				<0.0005				
9/24/2019						<0.0005	<0.0005	<0.0005

Confidence Interval

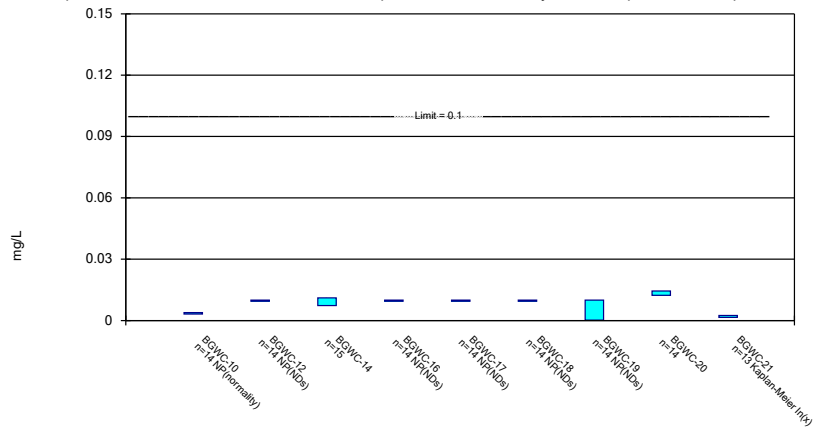
Constituent: Mercury (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	<0.0005	<0.0005			<0.0005			
9/30/2019			0.0011	<0.0005				
Mean	0.0004278	0.0004245	0.0004508	0.0004623	0.0002176	0.0004628	0.0004664	0.0004618
Std. Dev.	0.0001689	0.0001763	0.0004415	0.0001308	0.0002095	0.000129	0.0001163	0.0001266
Upper Lim.	0.0005	0.0005	0.0006954	0.0005	9.032E-05	0.0005	0.0005	0.0005
Lower Lim.	9.2E-05	5E-05	-1.456E-05	4.7E-05	5.166E-05	5.3E-05	9.7E-05	0.0005

Parametric and Non-Parametric (NP) Confidence Interval

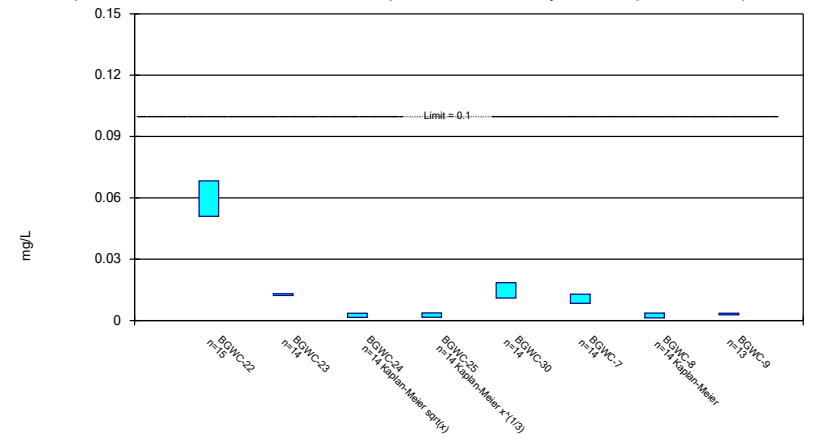
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Molybdenum Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

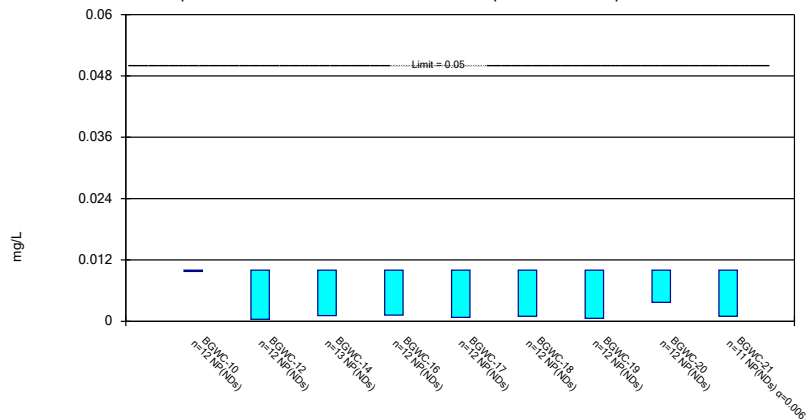
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Molybdenum Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Non-Parametric Confidence Interval

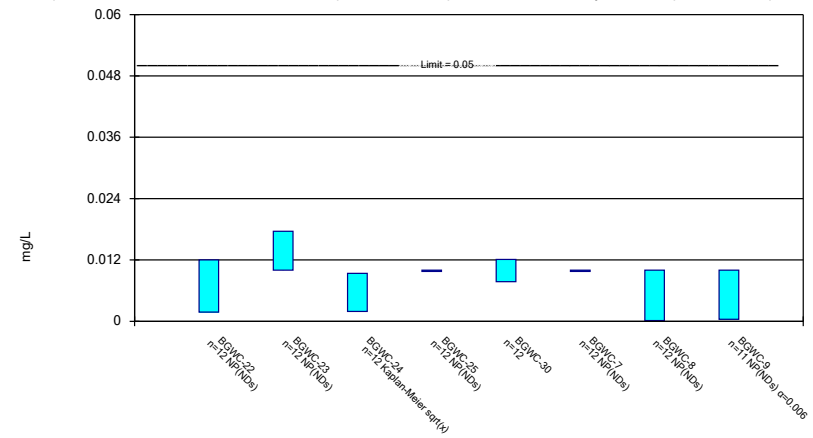
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Selenium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Selenium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.0067 (J)	<0.01		<0.01	<0.01				
6/8/2016						<0.01	<0.01	0.011 (J)	0.0027 (J)
6/10/2016			0.014 (J)						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	0.0127	
8/16/2016	0.0032 (J)								
8/17/2016			0.0085 (J)						
8/18/2016									0.0023 (J)
10/6/2016		<0.01							
10/7/2016	0.0032 (J)		0.0072 (J)	<0.01	<0.01	<0.01	<0.01		
10/10/2016								0.0136	0.0025 (J)
12/5/2016		<0.01							
12/6/2016	0.0049 (J)			<0.01	<0.01	<0.01			
12/7/2016							<0.01	0.0139	
12/8/2016			0.0082 (J)						<0.01
2/15/2017		<0.01							
2/16/2017	0.0039 (J)			<0.01	<0.01	<0.01	<0.01		
2/17/2017								0.0148	<0.01
2/21/2017			0.0076 (J)						
4/18/2017	0.0032 (J)	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	0.012	0.0014 (J)
4/21/2017			0.0052 (J)						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	0.0125	0.0012 (J)
6/2/2017	0.0035 (J)	<0.01							
6/6/2017			0.0079 (J)						
6/15/2017			0.0052 (J)						
7/12/2017	0.0037 (J)								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								0.0155	0.0013 (J)
7/19/2017			0.0073 (J)						
3/27/2018	0.0032 (J)			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						0.012	<0.01
3/29/2018			0.012						
6/12/2018				<0.01					
6/13/2018								0.016	
6/14/2018	0.0033 (J)	<0.01			<0.01	<0.01			<0.01
6/15/2018			0.012				<0.01		
10/17/2018		<0.01			<0.01				
10/18/2018	0.0034 (J)			<0.01		<0.01			
10/19/2018			0.0094 (J)				<0.01		<0.01
10/22/2018								0.013	
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		0.013	
2/28/2019	0.0035 (J)	<0.01							
3/1/2019							<0.01		
3/6/2019			0.013						
4/1/2019		<0.01							
4/2/2019	0.0032 (J)			<0.01	<0.01	<0.01			
4/3/2019							0.00023 (J)	0.012	0.0019 (J)
4/4/2019			0.0088 (J)						

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	0.0035 (J)	<0.01	0.012						
9/26/2019				<0.01	<0.01	<0.01	<0.01	0.015	
9/30/2019									0.003 (J)
Mean	0.003743	0.01	0.00922	0.01	0.01	0.01	0.009302	0.01336	0.0051
Std. Dev.	0.0009637	0	0.002759	0	0	0	0.002611	0.001499	0.004066
Upper Lim.	0.0039	0.01	0.01109	0.01	0.01	0.01	0.01	0.01442	0.002475
Lower Lim.	0.0032	0.01	0.007351	0.01	0.01	0.01	0.00023	0.0123	0.001507

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.0028 (J)
6/7/2016							0.00063 (J)	
6/8/2016	0.07			0.0064 (J)		0.0088 (J)		
6/9/2016		0.013 (J)	0.0024 (J)					
8/10/2016							0.0039 (J)	
8/11/2016						0.01		0.003 (J)
8/15/2016				0.0039 (J)				
8/18/2016	0.0758	0.0136	0.0034 (J)					
10/4/2016							0.0052 (J)	
10/5/2016								0.0032 (J)
10/6/2016						0.0117		
10/10/2016	0.0712	0.0134	0.0047 (J)	0.0029 (J)				
12/2/2016							<0.01	
12/5/2016								0.0033 (J)
12/6/2016						0.0102		
12/7/2016		0.0128	0.0066 (J)					
12/8/2016	0.0682			<0.01				
1/23/2017					0.0125			
2/7/2017					0.0163			
2/14/2017							0.0044 (J)	
2/15/2017						0.0018 (J)		0.0027 (J)
2/17/2017	0.066							
2/20/2017		0.0122	0.0026 (J)	0.0024 (J)				
3/27/2017					0.0157			
4/14/2017							0.0013 (J)	
4/17/2017					0.0178			0.0025 (J)
4/18/2017						0.0103		
4/19/2017		0.0124	0.002 (J)					
4/20/2017	0.0662			0.0019 (J)				
5/22/2017					0.0208			
5/26/2017							0.0024 (J)	0.0029 (J)
6/1/2017				0.0026 (J)				
6/2/2017						0.0129		
6/5/2017	0.071	0.0115	0.0015 (J)		0.0191			
7/10/2017							0.0013 (J)	
7/11/2017					0.0218			0.0029 (J)
7/14/2017						0.0129		
7/17/2017		0.0131	0.0013 (J)	0.0024 (J)				
7/19/2017	0.0703							
8/23/2017					0.0218			
3/26/2018					0.014		<0.01	
3/27/2018						0.01		0.0031 (J)
3/28/2018				<0.01				
3/29/2018	0.056	0.013	0.0027 (J)					
6/12/2018							0.0026 (J)	0.0043 (J)
6/13/2018		0.013	<0.01			0.013		
6/14/2018	0.059			<0.01				
6/15/2018					0.012			
10/16/2018							0.0041 (J)	
10/17/2018								0.0038 (J)
10/18/2018						0.01 (J)		
10/22/2018	0.055	0.013	<0.01	<0.01	0.01			

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.01	
2/28/2019						0.016		
3/1/2019	0.039	0.013	<0.01	<0.01	0.011			
4/1/2019							0.00054 (J)	0.0027 (J)
4/2/2019					0.01	0.011		
4/3/2019	0.039	0.012	0.00095 (J)					
4/4/2019				0.00096 (J)				
5/2/2019	0.043							
9/24/2019						0.01 (J)	0.0016 (J)	0.0041 (J)
9/27/2019	0.045	0.012			0.0036 (J)			
9/30/2019			0.00099 (J)	<0.01				
Mean	0.05965	0.01271	0.004224	0.005961	0.01474	0.01061	0.004141	0.003177
Std. Dev.	0.01276	0.0005998	0.003475	0.003822	0.005293	0.003153	0.003481	0.00056
Upper Lim.	0.06829	0.01314	0.00358	0.003693	0.01849	0.01285	0.003622	0.003593
Lower Lim.	0.051	0.01229	0.001497	0.001649	0.01099	0.008381	0.001334	0.002761

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.01	<0.01		<0.01	0.0004 (J)				
6/8/2016						<0.01	0.00043 (J)	<0.01	<0.01
6/10/2016			<0.01						
8/11/2016				<0.01	<0.01				
8/12/2016		<0.01				<0.01	<0.01	<0.01	
8/16/2016	<0.01								
8/17/2016			<0.01						
8/18/2016									<0.01
10/6/2016		<0.01							
10/7/2016	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01		
10/10/2016								<0.01	0.001 (J)
12/5/2016		<0.01							
12/6/2016	<0.01			<0.01	<0.01	<0.01			
12/7/2016							<0.01	0.0037 (J)	
12/8/2016			<0.01						<0.01
2/15/2017		<0.01							
2/16/2017	<0.01			0.0012 (J)	<0.01	<0.01	<0.01		
2/17/2017								<0.01	<0.01
2/21/2017			0.0011 (J)						
4/18/2017	<0.01	<0.01		<0.01					
4/19/2017					<0.01	<0.01	<0.01	<0.01	<0.01
4/21/2017			<0.01						
5/30/2017				<0.01	<0.01				
6/1/2017						<0.01	<0.01	<0.01	<0.01
6/2/2017	<0.01	<0.01							
6/6/2017			<0.01						
6/15/2017			<0.01						
7/12/2017	<0.01								
7/13/2017		<0.01							
7/14/2017				<0.01	<0.01	<0.01	<0.01		
7/18/2017								<0.01	<0.01
7/19/2017			<0.01						
3/27/2018	<0.01			<0.01	<0.01	<0.01	<0.01		
3/28/2018		<0.01						<0.01	<0.01
3/29/2018			<0.01						
2/25/2019				<0.01					
2/27/2019					<0.01	<0.01		<0.01	
2/28/2019	<0.01	<0.01							
3/1/2019							<0.01		
3/6/2019			<0.01						
4/1/2019		0.0004 (J)							
4/2/2019	<0.01			0.0006 (J)	0.00077 (J)	0.001 (J)			
4/3/2019							0.00058 (J)	<0.01	0.00012 (J)
4/4/2019			0.00014 (J)						
9/25/2019	<0.01	<0.01	<0.01						
9/26/2019				<0.01	<0.01	<0.01	<0.01	<0.01	
9/30/2019									<0.01
Mean	0.01	0.0092	0.008557	0.008483	0.008431	0.00925	0.008417	0.009475	0.008284
Std. Dev.	0	0.002771	0.003528	0.003544	0.003666	0.002598	0.003696	0.001819	0.003824
Upper Lim.	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Lower Lim.	0.01	0.0004	0.0011	0.0012	0.00077	0.001	0.00058	0.0037	0.001

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.00031 (J)
6/7/2016							4.8E-05 (J)	
6/8/2016	<0.01			<0.01		<0.01		
6/9/2016		<0.01	0.00099 (J)					
8/10/2016							<0.01	
8/11/2016						<0.01		0.001 (J)
8/15/2016				<0.01				
8/18/2016	<0.01	<0.01	0.0023 (J)					
10/4/2016							<0.01	
10/5/2016								0.0017 (J)
10/6/2016						<0.01		
10/10/2016	<0.01	<0.01	0.004 (J)	<0.01				
12/2/2016							<0.01	
12/5/2016								<0.01
12/6/2016						<0.01		
12/7/2016		0.0176	0.0302					
12/8/2016	0.012			<0.01				
1/23/2017					0.015			
2/7/2017					0.0114			
2/14/2017							<0.01	
2/15/2017						<0.01		<0.01
2/17/2017	<0.01							
2/20/2017		<0.01	0.0044 (J)	<0.01				
3/27/2017					0.0092 (J)			
4/14/2017							<0.01	
4/17/2017					0.0082 (J)			<0.01
4/18/2017						<0.01		
4/19/2017		<0.01	0.0046 (J)					
4/20/2017	<0.01			<0.01				
5/22/2017					0.0094 (J)			
5/26/2017							<0.01	0.0014 (J)
6/1/2017				<0.01				
6/2/2017						<0.01		
6/5/2017	0.0018 (J)	<0.01	0.0033 (J)		0.0118			
7/10/2017							<0.01	
7/11/2017					0.012			<0.01
7/14/2017						<0.01		
7/17/2017		<0.01	0.0052 (J)	<0.01				
7/19/2017	<0.01							
8/23/2017					0.0097 (J)			
3/26/2018					<0.01		<0.01	
3/27/2018						<0.01		<0.01
3/28/2018				<0.01				
3/29/2018	<0.01	<0.01	<0.01					
2/25/2019							<0.01	
2/28/2019						<0.01		
3/1/2019	<0.01	<0.01	<0.01	<0.01	0.01 (J)			
4/1/2019							0.00015 (J)	0.0004 (J)
4/2/2019					0.0092 (J)	<0.01		
4/3/2019	<0.01	<0.01	0.0038 (J)					
4/4/2019				<0.01				
9/24/2019						<0.01	<0.01	<0.01

Confidence Interval

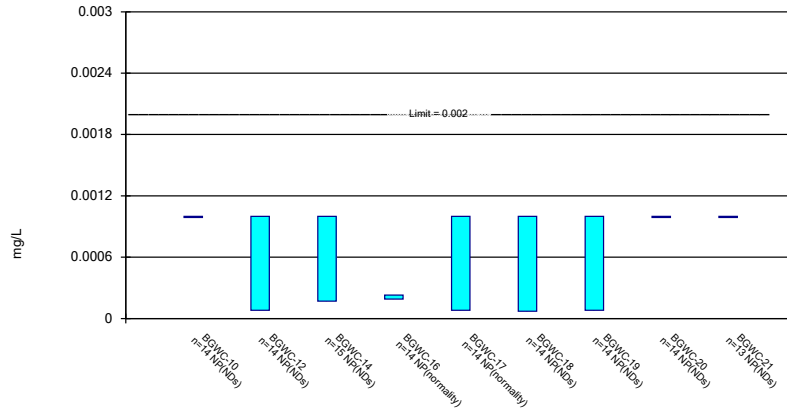
Constituent: Selenium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
9/27/2019	<0.01	<0.01			0.0033 (J)			
9/30/2019			0.0065 (J)	<0.01				
Mean	0.009483	0.01063	0.007107	0.01	0.009933	0.01	0.00835	0.005892
Std. Dev.	0.002487	0.002194	0.007765	0	0.002764	0	0.003854	0.004736
Upper Lim.	0.012	0.0176	0.00938	0.01	0.0121	0.01	0.01	0.01
Lower Lim.	0.0018	0.01	0.001925	0.01	0.007765	0.01	0.00015	0.0004

Non-Parametric Confidence Interval

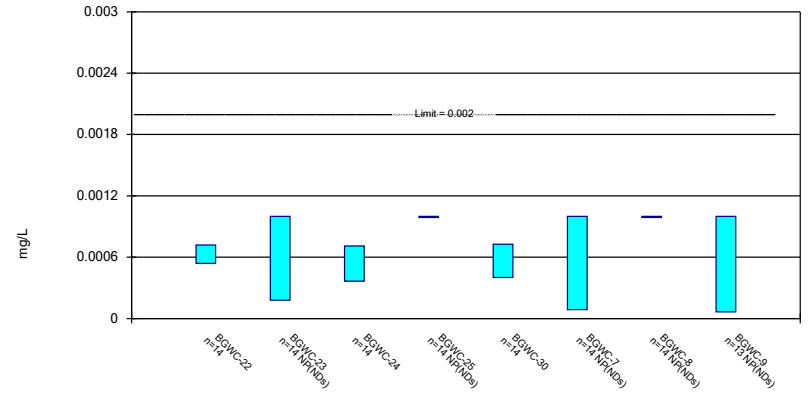
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric and Non-Parametric (NP) Confidence Interval

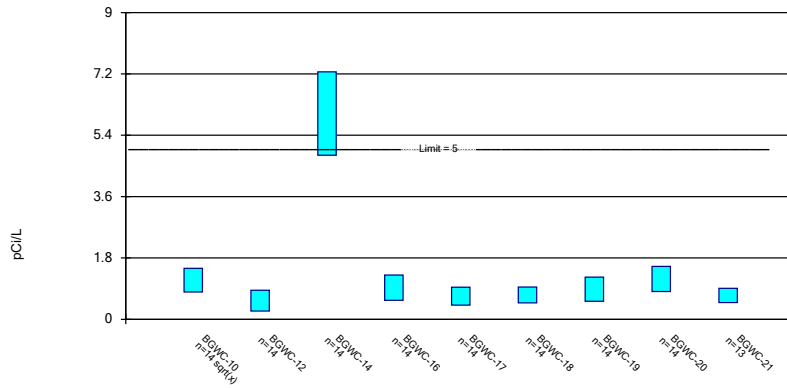
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Thallium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

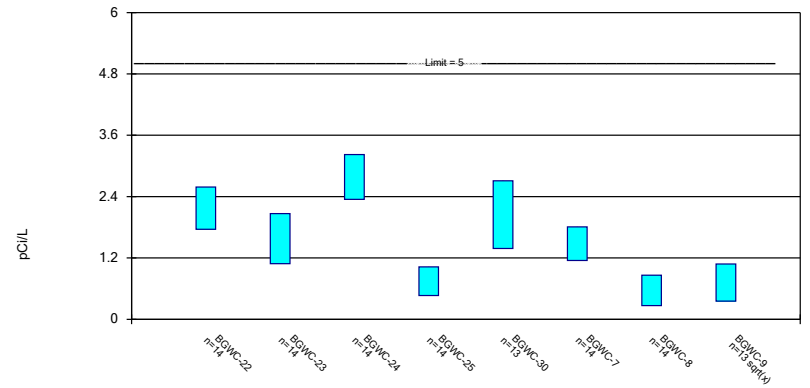
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Total Radium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk at Alpha = 0.01.



Constituent: Total Radium Analysis Run 12/12/2019 4:47 PM
 Plant Bowen Client: Georgia Power Data: Bowen AP-1

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	<0.001	<0.001		0.0002 (J)	8.5E-05 (J)				
6/8/2016						<0.001	8.5E-05 (J)	<0.001	<0.001
6/10/2016			<0.001						
8/11/2016				0.0002 (J)	8E-05 (J)				
8/12/2016		9E-05 (J)				6E-05 (J)	8E-05 (J)	<0.001	
8/16/2016	<0.001								
8/17/2016			<0.001						
8/18/2016									<0.001
10/6/2016		<0.001							
10/7/2016	<0.001		<0.001	0.0002 (J)	<0.001	<0.001	<0.001		
10/10/2016								<0.001	<0.001
12/5/2016		<0.001							
12/6/2016	<0.001			0.0003 (J)	<0.001	<0.001			
12/7/2016							<0.001	<0.001	
12/8/2016			<0.001						<0.001
2/15/2017		<0.001							
2/16/2017	<0.001			0.0003 (J)	<0.001	<0.001	<0.001		
2/17/2017								<0.001	<0.001
2/21/2017			<0.001						
4/18/2017	<0.001	9E-05 (J)		0.0002 (J)					
4/19/2017					8E-05 (J)	<0.001	6E-05 (J)	<0.001	<0.001
4/21/2017			<0.001						
5/30/2017				0.0002 (J)	9E-05 (J)				
6/1/2017						<0.001	8E-05 (J)	<0.001	<0.001
6/2/2017	<0.001	<0.001							
6/6/2017			<0.001						
6/15/2017			<0.001						
7/12/2017	<0.001								
7/13/2017		8E-05 (J)							
7/14/2017				0.0002 (J)	9E-05 (J)	<0.001	8E-05 (J)		
7/18/2017								<0.001	<0.001
7/19/2017			<0.001						
3/27/2018	<0.001			0.00019 (J)	<0.001	<0.001	<0.001		
3/28/2018		<0.001						<0.001	<0.001
3/29/2018			<0.001						
6/12/2018				0.0002 (J)					
6/13/2018								<0.001	
6/14/2018	<0.001	<0.001			<0.001	<0.001			<0.001
6/15/2018			<0.001				<0.001		
10/17/2018		<0.001			<0.001				
10/18/2018	<0.001			0.0002 (J)		<0.001			
10/19/2018			0.00017 (J)				<0.001		<0.001
10/22/2018								<0.001	
2/25/2019				0.00023 (J)					
2/27/2019					<0.001	<0.001		<0.001	
2/28/2019	<0.001	<0.001							
3/1/2019							<0.001		
3/6/2019			<0.001						
4/1/2019		<0.001							
4/2/2019	<0.001			0.0002 (J)	7.5E-05 (J)	<0.001			
4/3/2019							<0.001	<0.001	<0.001
4/4/2019			<0.001						

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
9/25/2019	<0.001	6E-05 (J)	<0.001						
9/26/2019				0.00023 (J)	0.00026 (J)	7.1E-05 (J)	8E-05 (J)	<0.001	
9/30/2019									<0.001
Mean	0.001	0.0007371	0.0009447	0.0002179	0.0005543	0.0008665	0.0006046	0.001	0.001
Std. Dev.	0	0.0004314	0.0002143	3.662E-05	0.0004648	0.0003394	0.0004738	0	0
Upper Lim.	0.001	0.001	0.001	0.00023	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.001	8E-05	0.00017	0.00019	8E-05	7.1E-05	8E-05	0.001	0.001

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								<0.001
6/7/2016							<0.001	
6/8/2016	0.00035 (J)			<0.001		<0.001		
6/9/2016		0.0001 (J)	0.00022 (J)					
8/10/2016							<0.001	
8/11/2016						<0.001		<0.001
8/15/2016				<0.001				
8/18/2016	0.0005 (J)	<0.001	<0.001					
10/4/2016							<0.001	
10/5/2016								<0.001
10/6/2016						<0.001		
10/10/2016	0.0006 (J)	<0.001	0.0003 (J)	<0.001				
12/2/2016							<0.001	
12/5/2016								<0.001
12/6/2016						<0.001		
12/7/2016		<0.001	<0.001					
12/8/2016	0.0005 (J)			<0.001				
1/23/2017					0.0008 (J)			
2/7/2017					0.0008 (J)			
2/14/2017							<0.001	
2/15/2017						<0.001		<0.001
2/17/2017	0.0006 (J)							
2/20/2017		<0.001	0.0003 (J)	<0.001				
3/27/2017					0.0006 (J)			
4/14/2017							<0.001	
4/17/2017					0.0007 (J)			<0.001
4/18/2017						<0.001		
4/19/2017		<0.001	0.0004 (J)					
4/20/2017	0.0006 (J)			<0.001				
5/22/2017					0.0008 (J)			
5/26/2017							<0.001	<0.001
6/1/2017				<0.001				
6/2/2017						<0.001		
6/5/2017	0.0006 (J)	<0.001	0.0004 (J)		0.0007 (J)			
7/10/2017							<0.001	
7/11/2017					0.0007 (J)			<0.001
7/14/2017						<0.001		
7/17/2017		<0.001	0.0004 (J)	<0.001				
7/19/2017	0.0007 (J)							
8/23/2017					0.0007 (J)			
3/26/2018					0.00058 (J)		<0.001	
3/27/2018						<0.001		<0.001
3/28/2018				<0.001				
3/29/2018	0.00063 (J)	<0.001	0.00048 (J)					
6/12/2018							<0.001	<0.001
6/13/2018		<0.001	0.00053 (J)			<0.001		
6/14/2018	0.00069 (J)			<0.001				
6/15/2018					0.00056 (J)			
10/16/2018							<0.001	
10/17/2018								<0.001
10/18/2018						<0.001		
10/22/2018	0.00071 (J)	<0.001	0.00047 (J)	<0.001	0.00034 (J)			

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/25/2019							<0.001	
2/28/2019						<0.001		
3/1/2019	0.00074 (J)	<0.001	0.0007 (J)	<0.001	0.00024 (J)			
4/1/2019							<0.001	6.5E-05 (J)
4/2/2019					0.00024 (J)	7E-05 (J)		
4/3/2019	0.0007 (J)	<0.001	0.00064 (J)					
4/4/2019				<0.001				
9/24/2019						8.7E-05 (J)	<0.001	<0.001
9/27/2019	0.00088 (J)	0.00018 (J)			0.00014 (J)			
9/30/2019			0.00069 (J)	<0.001				
Mean	0.0006286	0.0008771	0.0005379	0.001	0.0005643	0.0008684	0.001	0.0009281
Std. Dev.	0.0001271	0.0003127	0.0002428	0	0.0002291	0.0003346	0	0.0002593
Upper Lim.	0.0007186	0.001	0.0007098	0.001	0.0007266	0.001	0.001	0.001
Lower Lim.	0.0005385	0.00018	0.0003659	0.001	0.000402	8.7E-05	0.001	6.5E-05

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
6/7/2016	0.616	0.024 (U)		0.284 (U)	0.135 (U)				
6/8/2016						0.406	0.264 (U)	0.863 (U)	0.573
8/11/2016				1.71	0.808				
8/12/2016		0.849				1.39	1.18	1.74	
8/16/2016	1.08								
8/17/2016			5.18						
8/18/2016									0.44 (U)
10/6/2016		1.57							
10/7/2016	2.82			0.485 (U)	0.874 (U)	0.451 (U)	1.97		
10/10/2016								0.944 (U)	0.933 (U)
12/5/2016		0.956							
12/6/2016	0.719 (U)			1.22	0.131 (U)	0.516 (U)			
12/7/2016							1.31 (U)	2.29	
12/8/2016									1.02 (U)
2/15/2017		0.229 (U)							
2/16/2017	0.966 (U)			0.19 (U)	0.471 (U)	0.172 (U)	0.35 (U)		
2/17/2017								1.35 (U)	0.193 (U)
2/21/2017			5.1						
4/18/2017	1.01 (U)	0.0114 (U)		0.52 (U)					
4/19/2017					0.65 (U)	0.704 (U)	0.974 (U)	1.48	0.488 (U)
5/26/2017			7.14						
5/30/2017				1.21 (U)	0.65 (U)				
6/1/2017						0.493 (U)	0.332 (U)	1.61	0.837 (U)
6/2/2017	1.13 (U)	0.375 (U)							
6/6/2017			4.68						
6/15/2017			5.69						
7/12/2017	1.29		2.92						
7/13/2017		0.636 (U)							
7/14/2017				0.526 (U)	0.592 (U)	0.547 (U)	1.27		
7/18/2017									0.498 (U)
7/19/2017								1.626	
8/10/2017			6.51						
8/25/2017			7.04						
3/27/2018	0.779 (U)			1.34	0.551 (U)	0.569 (U)	0.169 (U)		
3/28/2018		0.36 (U)						0.97 (U)	0.864 (U)
3/29/2018			6.35						
6/12/2018				0.732 (U)					
6/13/2018								0.686 (U)	
6/14/2018	1.22 (U)	0.316 (U)			0.638 (U)	0.989 (U)			0.583 (U)
6/15/2018			6.2				0.625 (U)		
10/17/2018		0.326 (U)			0.555 (U)				
10/18/2018	0.841 (U)			0.522 (U)		0.875 (U)			
10/19/2018			3.76				0.784 (U)		0.982 (U)
10/22/2018								0.559 (U)	
2/25/2019				1.08					
2/27/2019					1.57	1.12		1.24	
2/28/2019	1.88	1.04							
3/1/2019							0.989 (U)		
3/6/2019			9.46						
4/1/2019		0.328 (U)							
4/2/2019	1.21 (U)			1.73	0.71 (U)	0.814 (U)			
4/3/2019							0.98 (U)	0.567 (U)	0.532 (U)

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-10	BGWC-12	BGWC-14	BGWC-16	BGWC-17	BGWC-18	BGWC-19	BGWC-20	BGWC-21
4/4/2019			8.48						
9/25/2019	0.816 (U)	0.649 (U)	6.03						
9/26/2019				1.45	1.17 (U)	0.973 (U)	1.16	0.662 (U)	
9/30/2019									1.16 (U)
Mean	1.17	0.5478	6.039	0.9285	0.6789	0.7156	0.8826	1.185	0.7002
Std. Dev.	0.5697	0.4335	1.726	0.5242	0.3693	0.3276	0.5011	0.5208	0.2831
Upper Lim.	1.494	0.8548	7.261	1.3	0.9405	0.9477	1.238	1.554	0.9108
Lower Lim.	0.8	0.2408	4.816	0.5572	0.4174	0.4836	0.5277	0.8159	0.4897

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
6/6/2016								0.488
6/7/2016							0.0507 (U)	
6/8/2016	1.53			0.314 (U)		0.854		
6/9/2016		0.704	2.13					
8/10/2016							0.862 (U)	
8/11/2016						1.24		0.639 (U)
8/15/2016				1.2				
8/18/2016	2.47	1.88	2.67					
10/4/2016							0.48 (U)	
10/5/2016								0.945 (U)
10/6/2016						2.43		
10/10/2016	2.11	1.48	3.46	1.03 (U)				
12/2/2016							0.219 (U)	
12/5/2016								2.2
12/6/2016						0.958 (U)		
12/7/2016		2.61	1.65					
12/8/2016	2.64			1.47 (U)				
1/23/2017					2.17			
2/7/2017					3			
2/14/2017							0.636 (U)	
2/15/2017						1.18		0.74 (U)
2/17/2017	1.34							
2/20/2017		0.884 (U)	2.68	0.547 (U)				
4/14/2017							0.13 (U)	
4/17/2017					2.73			0.764 (U)
4/18/2017						1.26		
4/19/2017		0.948 (U)	3.81					
4/20/2017	2.35			0.0595 (U)				
5/22/2017					3.15			
5/26/2017							0.349 (U)	0.245 (U)
6/1/2017				0.67 (U)				
6/2/2017						1.24 (U)		
6/5/2017	1.6	1.33	2.86		0.86 (U)			
7/10/2017							0.565 (U)	
7/11/2017					1.87			0.502 (U)
7/14/2017						1.55		
7/17/2017		1.04	2.87	1.25 (U)				
7/19/2017	1.76							
8/23/2017					3.39			
3/26/2018					1.61		0.303 (U)	
3/27/2018						2.15		0.745 (U)
3/28/2018				0.507 (U)				
3/29/2018	2.43	1.65	2.79					
6/12/2018							0.494 (U)	0.319 (U)
6/13/2018		0.983 (U)	2.19			1.95		
6/14/2018	2.14			0.721 (U)				
6/15/2018					0.815 (U)			
10/16/2018							0.633 (U)	
10/17/2018								0.319 (U)
10/18/2018						1.1		
10/22/2018	1.43	1.21	2.18	0.741 (U)	1.02 (U)			
2/25/2019							1.03 (U)	

Confidence Interval

Constituent: Total Radium (pCi/L) Analysis Run 12/12/2019 4:49 PM

Plant Bowen Client: Georgia Power Data: Bowen AP-1

	BGWC-22	BGWC-23	BGWC-24	BGWC-25	BGWC-30	BGWC-7	BGWC-8	BGWC-9
2/28/2019						1.38		
3/1/2019	3.32	2.24	3.37	0.634 (U)	2.47			
4/1/2019							0.474 (U)	0.225 (U)
4/2/2019					2.29	1.57		
4/3/2019	2.48	2.86	3.6					
4/4/2019				0.346 (U)				
9/24/2019						1.85	1.69	1.65
9/27/2019	2.83	2.28			1.23 (U)			
9/30/2019			2.73	0.953 (U)				
Mean	2.174	1.579	2.785	0.7459	2.047	1.479	0.5654	0.7524
Std. Dev.	0.5823	0.6922	0.6196	0.3963	0.8907	0.4636	0.4196	0.577
Upper Lim.	2.586	2.069	3.224	1.027	2.709	1.808	0.8626	1.083
Lower Lim.	1.761	1.088	2.346	0.4652	1.384	1.151	0.2682	0.3562