



# 2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Plant Yates - Ash Pond 2

Newnan, Georgia

August 2020

**2020 SEMIANNUAL  
GROUNDWATER  
MONITORING AND  
CORRECTIVE ACTION  
REPORT**

Plant Yates - Ash Pond 2  
Newnan, Georgia



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## ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
Arcadis	Arcadis, Inc.
AP	Ash Pond
bgs	below ground surface
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
DO	dissolved oxygen
ft	feet or foot
ft/ft	feet per foot
GAEPD	Georgia Environmental Protection Division
GPC	Georgia Power Company
GWPS	Groundwater Protection Standard
LCL	Lower Confidence Limit
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
mg/L	milligrams per liter
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity units
PQL	laboratory reporting limit
QA/QC	Quality Assurance/Quality Control
SSI	Statistically Significant Increase
USEPA	United States Environmental Protection Agency

## PROFESSIONAL CERTIFICATION

This 2020 Semiannual Groundwater Monitoring and Corrective Action Report for the Georgia Power Company Plant Yates Ash Pond 2 (AP-2) has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations 257 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-10 by a qualified groundwater scientist or engineer with Arcadis, U.S., Inc.

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## 1 INTRODUCTION

This *2020 Semiannual Groundwater Monitoring and Corrective Action Report* presents groundwater monitoring activities conducted at the Georgia Power Company (GPC) Plant Yates Ash Pond (AP) AP-2 (the Site) in February and March 2020. This report was prepared in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (GAEPD) Rules for Solid Waste Management 391-3-4-.10. Groundwater monitoring requirements for the site are specified by GAEPD Rule 391-3-4-.10(6)(a), which also incorporates the USEPA CCR Rule. For ease of reference, the USEPA CCR Rules are cited within this report.

This report presents the results of February 2020 annual monitoring for Appendix IV of 40 CFR 257, as well as a semiannual monitoring event conducted in March 2020 and activities completed through the first half of 2020 in accordance with Rule 391-3-4-.10(6)(c).

This report documents the monitoring activities completed for the groundwater monitoring program through the first half of 2020 in accordance with § 257.90(e) at Plant Yates – AP-2.

### 1.1 Background

Plant Yates is located on 708 Dyer Road, on the east bank of the Chattahoochee River in Coweta County, Georgia near the Coweta and Carroll County line, approximately 8 miles northwest of the city of Newnan and 13 miles southeast of the city of Carrollton. Plant Yates occupies approximately 2,400 acres. **Figure 1** depicts the site location relative to the surrounding area. The layout of Plant Yates and the other site features are shown in **Figure 2**.

A permit application to comply with EPD rules was submitted in November 2018 and is currently under review. AP-2 was placed in an assessment monitoring program based on results of the *2017 Annual Groundwater and Corrective Action Monitoring Report*, which was implemented on January 15, 2018. A notice of assessment monitoring was placed in the operation record on May 15, 2018. Semiannual monitoring for the CCR unit is performance in accordance with the monitoring requirements 40 CFR § 257.90 through 257.95 of the Federal CCR Rule, and the EPD rules for Solid Waste Management 391-3-4-.10(6)(a).

### 1.2 Regional Geology and Hydrogeologic Setting

Plant Yates is located at 708 Dyer Road on the east bank of the Chattahoochee River in Coweta County, Georgia near the Coweta and Carroll County line. The Site is approximately 8 miles northwest of the city of Newnan and 13 miles southeast of the city of Carrollton. Plant Yates occupies approximately 2,400 acres. **Figure 1** depicts the site location relative to the surrounding area.

Plant Yates is located in the Inner Piedmont Physiographic Province of western Georgia, immediately southeast of the Brevard Zone, a regional fault zone that separates the Piedmont from the Blue Ridge. Rock units at Plant Yates are primarily interlayered gneiss and schists. The rocks in the area have been subjected to extensive metamorphism, deformation, and igneous intrusions. Extensive fracture sets are present in the underlying bedrock. Surface expressions of these fractures are observed on topographic maps and aerial photos of the Plant Yates area (ACC January 2020).

A thin layer of soil from one to two feet thick overlies a thick layer of saprolite. The saprolite, which extends to typical depths of 20 to 40 feet below ground surface, was formed in-place by the physical and chemical weathering of the underlying metamorphic rocks. The saprolite typically consists of clay and silt rich soils that grade to sandier soils with depth. A zone of variable thickness (approximately 5 to 20 feet) of transitionally weathered rock typically exists between the saprolite and competent bedrock. The lithology of the transition zone is highly variable and ranges from medium to coarse unconsolidated material to highly fractured and weathered rock fragments. Localized alluvial soils consisting of generally coarser material (silty-sand, clayey silt, and silty clay with well-rounded gravel and cobbles) that have been observed in saprolite may be related to historical river channel migration.

At Plant Yates, groundwater is typically encountered slightly above the saprolite/weathered rock interface. Groundwater flow in the saprolite zone is through interconnected pores and relict textures and fractures. As the rock becomes increasingly competent with depth, groundwater flow occurs mainly through joints and fractures (i.e., secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of soil/saprolite or by direct entrance through openings in outcrops. The average depth of the water table at Plant Yates varies with topography, ranging from approximately 5 to 50 feet below ground surface. The water table occurs in the saprolite and in the transitionally weathered zone, at least several feet above the top of rock.

Field hydraulic conductivity tests (i.e., slug tests) have been performed in saprolite and weathered bedrock at multiple locations at the Site. The hydraulic conductivity at these locations is typically in a range from  $10^{-3}$  to  $10^{-4}$  centimeters per second, based on multiple rising-head and falling-head slug tests (ACC 2020). This indicates a fairly uniform medium across the saprolite and weathered rock horizon. The hydraulic conductivity values from the field tests fall within a range consistent with that of Piedmont overburden (Newell et al. 1990).

### 1.3 Groundwater Monitoring Well Network and CCR Unit Description

Pursuant to § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at the Site. The monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Unit within the uppermost aquifer. Wells are located to monitor upgradient and downgradient conditions based on groundwater flow direction. The compliance monitoring well network is summarized in **Table 1**.

As typical of the Piedmont Physiographic Province, there is a degree of connectivity between the saprolite and partially weathered rock units. Fractured bedrock may or may not be connected to the overlying units and flow may be controlled by geologic structures present. Based on the site hydrogeology, the monitoring system is designed to monitor groundwater flow in the saprolite, the transition-zone, and the upper bedrock. Wells suffixed with an "S" are installed in saprolite, an "I" indicates partially weathered rock (transition zone), and "D" indicates upper bedrock. The CCR unit AP-2 was established along a topographically low area formed by an unnamed tributary. Based on the site hydrogeology, the monitoring system is designed to monitor groundwater flow in the overburden, the transition-zone, and the upper bedrock. The monitoring well network for the Site is provided on **Figure 2**.

## 2 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed in the first half of 2020 and presents the status of the monitoring program. Groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each well in the certified monitoring system shown on **Figure 2**.

**Table 2** summarizes groundwater sampling events conducted by ACC at AP-2 during February and March 2020. During the February 2020 event, groundwater samples were collected and analyzed for 40 CFR 257 Appendix IV constituents to meet the requirement of 40 CFR § 257.95(b). During the March 2020 semiannual sampling event, groundwater samples were collected for both 40 CFR 257 Appendix III and the Appendix IV constituents detected during the February 2020 event. Field sampling logs are provided in **Appendix A**.

### 2.1 Monitoring Well Installation and Maintenance

There were no changes to the groundwater monitoring system in the first half of 2020; the network remained the same as in the 2019 (previous) reporting year. Monitoring well-related activities were limited to the following: visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance necessary for sampling under safe and clean conditions.

### 2.2 Assessment Monitoring

AP-2 was placed in an assessment monitoring program based on results of the *2017 Annual Groundwater and Corrective Action Monitoring Report*, which was implemented on January 15, 2018. A notice of assessment monitoring was placed in the operation record on May 15, 2018. Monitoring wells at AP-2 were sampled for Appendix IV parameters in February 2020 pursuant to 40 CFR § 257.95(b). In accordance with 40 CFR § 257.95(d), a semiannual assessment monitoring event occurred in March 2020 where samples were collected and analyzed for Appendix III parameters and Appendix IV parameters detected above the laboratory method detection limit (MDL) from the February 2020 event. A summary of groundwater sampling events completed during the first half of 2020 is provided in **Table 2**.

## 3 SAMPLING METHODOLOGY AND ANALYSIS

Groundwater monitoring methods at the Site are described in the following sections.

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

Prior to the February and March assessment sampling events, static water levels were recorded from piezometers and wells at AP-2. Water levels at 14 monitoring wells within the certified well network were collected along with 8 non-network monitoring wells and/or piezometers. The February and March 2020 groundwater elevation data are summarized in **Tables 3**.

Saprolite and transition zone groundwater elevation data were used to prepare a potentiometric surface elevation contour map (**Figure 3**). Saprolite and transition zone groundwater elevations range from 823.31 feet (YGWA-21) to 691.96 feet (YGWC-27I). The groundwater flow direction for the saprolite and transition zone wells is generally northeast, southwest and west toward AP-2 where it flows west to the

Chattahoochee River. The groundwater flow direction is consistent with historical patterns. YGWA-1D and YGWA-3D, deep bedrock wells, had groundwater elevations of 791.73 feet and 767.80 feet, respectively, which varied from the saprolite and transition zone well elevations. It is interpreted that these variations are attributed to bedrock geologic structural controls, and therefore may be hydraulically independent of each other. Based on this interpretation, the deep bedrock potentiometric surface was not used for contouring.

The groundwater flow velocity at Plant Yates was calculated using a derivation of Darcy's Law.

Specifically:

$$v = \frac{k \left( \frac{dh}{dl} \right)}{n_e}$$

where:

v = groundwater seepage velocity

k = hydraulic conductivity

dh/dl = hydraulic gradient

n<sub>e</sub> = effective porosity

Groundwater flow velocities were calculated for the site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll 1986, USEPA 1989, and Freeze and Cherry 1979).

Calculated groundwater flow velocities for March 2020 and are presented in **Table 4**. The calculated average groundwater linear flow velocity is 27 feet per year.

### 3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Monitoring wells were purged and sampled using a dedicated bladder pump until water quality parameters stabilized. For wells sampled with non-dedicated bladder pumps, the pumps were lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). 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 (pH, conductivity, and dissolved oxygen [DO]) during well purging to verify stabilization prior to sampling.

Turbidity was measured using a Hach 2100Q portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met for a minimum of three consecutive readings:

- ± 0.1 standard units for pH.
- ± 10% for specific conductance.
- ± 10% for DO where DO > 0.5 milligrams per liter (mg/L). No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 10 nephelometric turbidity units.

Once stabilization was achieved, samples were collected directly into laboratory-supplied sample containers with preservative (where applicable). The samples were placed on ice in an insulated cooler following their collection. The samples were submitted to Pace Analytical Services, LLC following chain-of-custody protocol. Stabilization logs for each well are included in **Appendix A**.

### 3.3 Laboratory Analyses

Samples were submitted for laboratory analysis from 13 monitoring wells as summarized in **Table 2**. During the February 2020 sampling event, the AP-2 wells were sampled and analyzed for Appendix IV parameters according to 40 CFR § 257.95(b). Groundwater samples collected during the semiannual event in March 2020 were analyzed for Appendix III parameters as well as those Appendix IV parameters detected above the laboratory MDL during the February 2020 event, in accordance with 40 CFR § 257.95(d). Mercury was not detected above the laboratory MDL during the February 2020 scan event. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in **Appendix B**.

Analytical data collected from the two sampling events (February and March 2020) are summarized in **Table 5**. A summary of historical groundwater data is provided in **Appendix C**.

Laboratory analyses were performed by Pace Analytical Services, LLC, which is accredited by the National Environmental Laboratory Accreditation Program and maintains this certification for all parameters analyzed for this project. Laboratory reports and chain-of-custody records for the monitoring events are presented in **Appendix B**.

### 3.4 Data Quality Assurance/Quality Control (QA/QC) and Validation

During each sampling event, quality assurance/quality control (QA/QC) samples were collected at a rate of one sample per every 10 samples. QA/QC samples included equipment blanks (where non-dedicated equipment is used), field blanks, and duplicate samples. Groundwater quality data in this report was validated in accordance with USEPA guidance (USEPA 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post-digestion spikes, laboratory and field duplicate relative percent differences, equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags have been applied to the data using USEPA procedures as guidance (USEPA 2017). The data validation report prepared by ACC included in **Appendix B** summarizes the validation actions and applicable interpretation.

The purpose of the data quality evaluation was to determine the reliability of the chemical analyses and the accuracy and precision of information acquired from the laboratory. Data quality was assessed through the review and evaluation of field sampling activities, quality control samples, and data associated with the chemical analytical results. The complete results of the data quality evaluations are provided in **Appendix B**.

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the MDL and the laboratory reporting limit. The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. "J" flagged data are used to establish background statistical limits but are not used when performing statistical analyses.

## 4 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on data from the assessment monitoring events pursuant to 40 CFR §§ 257.93–95 following the established, certified

statistical methods. The statistical method used at the site was developed in accordance with 40 CFR § 257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, USEPA 530/R-09-007 (USEPA 2009).

## 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 Unified Guidance document (USEPA 2009). Although Assessment Monitoring has been implemented, statistical evaluation of Appendix III constituents is performed to determine whether constituents have returned to background conditions.

### 4.1.1 Appendix III Statistical Methods

Groundwater data were evaluated using interwell tolerance limits for Appendix III parameters. This method uses pooled upgradient monitoring well data to establish a background statistical limit. Data from the March 2020 event were compared to the statistical limit to determine whether concentrations exceeded background levels. The statistical method incorporates an optional 1-of-2 verification resample plan. When an initial statically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine whether the result was an outlier. If resampling is performed and the initial finding is not verified, the resampled value replaces the initial finding. When the resample confirms the initial result, both values remain in the database and an SSI is declared. The following criteria were applied to the evaluation:

- Statistical analyses were not performed on analytes containing 100 percent non-detects.
- When data contained less than 15 percent non-detects in background, simple substitution of one-half the reporting limit was used in the statistical analysis. The reporting limit used for non-detects is the practical quantification limit reported by the laboratory.
- When data contained between 15 to 50 percent non-detects, the Kaplan-Meier non-detect adjustment was applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Non-parametric prediction limits were used on data containing greater than 50 percent non-detects.

### 4.1.2 Assessment Monitoring Statistical Methods

Parametric tolerance limits were used to calculate background limits from pooled upgradient well data for Appendix IV constituents with a target of 95 percent confidence and 95 percent coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the groundwater protection standards (GWPS) established under 40 CFR § 257.95(h) and GAEPD Rule 391-3-4-.10(6)(a).

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

- The maximum contaminant level (MCL) established under §§ 141.62 and 141.66 of this title;
- For the following constituents:

- Cobalt: 0.006 mg/L
- Lead: 0.015 mg/L
- Lithium: 0.040 mg/L
- Molybdenum: 0.100 mg/L; and
- The background level for constituents where the background level is higher than the MCL or rule identified GWPS.

USEPA revised the federal CCR Rule on July 30, 2018, providing GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR 257.95(h)(2). Presently those updated GWPS have not yet been incorporated in the current GAEPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, background concentrations are considered when determining the GWPS for constituents where an MCL has not been established (or where background is higher than the MCL). Under the existing GAEPD rules, the GWPS is:

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

Following the above federal and state rules, GWPS have been established for statistical comparison of Appendix IV constituents at AP-2. **Table 6** summarizes the background limit established at each monitoring well along with the GWPS established under federal and state rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS established under federal and state rules. A well/constituent pair was considered to exceed its respective standard only when the entire confidence interval exceeded a GWPS. If there was an exceedance of the established standard, an SSL exceedance was identified.

## 4.2 Statistical Analysis Results

Appendix III statistical analysis for wells associated with the Site was performed to determine whether constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine whether concentrations statistically exceed the established GWPS. Appendix III and Appendix IV data from the first 2020 semiannual event were statistically analyzed in accordance with the Statistical Analysis Plan (Groundwater Stats 2019).

Based on review of the Appendix III statistical analysis from the March 2020 sampling event presented in **Appendix E**, Appendix III constituents have not returned to background levels and assessment monitoring should continue pursuant to 40 CFR § 257.95(f). A table summarizing these constituents and wells is provided in **Appendix E**.

Statistical analysis of the March 2020 Appendix IV data was completed using the GWPS established according to both 40 CFR § 257.95(h) and GAEPD Rule 391-3-4-.10(6)(a). No SSLs were identified. Sanitas™ statistical output data for calculation of site-specific background concentrations (interwell tolerance limits) and confidence intervals for each Appendix IV constituent in downgradient wells are provided in **Appendix D**.

## 5 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e), an assessment monitoring program was implemented in January 2018. No statistical exceedance of a GWPS for Appendix IV parameters has been identified. Pursuant to 40 CFR § 257.96(b), GPC will continue to monitor groundwater at AP-2 in accordance with the assessment monitoring program regulations of 40 CFR § 257.95 due to SSIs for Appendix III parameters.

## 6 CONCLUSIONS AND FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for the Site identified no exceedance of a GWPS for an Appendix IV constituent. The next semiannual assessment monitoring event is planned for the third quarter of 2020 and will include the collection of Appendix III analytes and the Appendix IV constituents analyzed during the March 2020 sampling event.

## 7 REFERENCES

- ACC. 2020. *Plant Yates, Ash Pond 2 – 2020 Annual Groundwater Monitoring and Corrective Action Report*. Prepared for Georgia Environmental Protection Division. January 2020.
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# TABLES



**Table 1. Monitoring Network Well Summary**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - AP-2**



Well ID	Installation Date	Depth to Bottom (ft bTOC)	Bottom Elevation (ft)	Depth to Top of Screen (ft bTOC)	Top of Screen Elevation (ft)	Hydraulic Location / Purpose
<b>Network Wells</b>						
YGWA-1I	5/20/2014	53.60	783.00	43.30	793.30	Upgradient
YGWA-1D	5/20/2014	128.85	708.40	78.05	759.20	Upgradient
YGWA-2I	5/20/2014	63.75	802.50	53.45	812.80	Upgradient
YGWA-3I	5/20/2014	59.05	737.50	48.85	747.70	Upgradient
YGWA-3D	5/20/2014	134.18	662.60	83.88	712.90	Upgradient
YGWA-14S	5/20/2014	34.96	713.80	24.66	724.10	Upgradient
YGWA-30I	9/23/2015	59.48	703.10	49.18	713.40	Upgradient
YGWC-26S	10/1/2015	40.18	676.10	29.88	686.40	Downgradient
YGWC-26I	9/30/2015	69.81	646.10	59.51	656.40	Downgradient
YGWC-27S	10/7/2015	40.52	676.00	30.22	686.30	Downgradient
YGWC-27I	10/7/2015	79.99	636.20	69.69	646.50	Downgradient
YGWC-28S	10/5/2015	44.95	673.00	34.65	683.30	Downgradient
YGWC-28I	10/5/2015	69.93	648.00	59.63	658.30	Downgradient
YGWC-29I	10/1/2015	39.59	677.80	29.29	688.10	Downgradient
<b>Non-Network Wells</b>						
PZ-1S	5/20/2014	36.34	800.50	26.04	810.80	Piezometer
PZ-3S	5/20/2014	42.39	754.00	32.09	764.30	Piezometer
PZ-13S	5/20/2014	43.79	764.00	33.49	774.30	Piezometer
PZ-13I	5/20/2014	59.22	748.40	48.92	758.70	Piezometer
PZ-14I	5/20/2014	50.86	698.20	40.56	708.50	Piezometer
PZ-25S	9/2/2015	56.80	709.80	46.50	720.10	Piezometer
PZ-25I	9/3/2015	84.58	681.80	74.28	692.10	Piezometer
PZ-31S	9/24/2015	34.72	703.90	24.42	714.20	Piezometer

**Notes:**

Elevation is presented in U.S. Survey Feet (North American Vertical Datum of 1988) based on June 2020 survey.

**Acronyms and Abbreviations:**

bTOC = below top of casing

ft = feet

**Table 2. Groundwater Sampling Plan**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - AP-2**

Well ID	Hydraulic Location	Assessment Monitoring	2020 Semiannual Sampling
		February 10 - 13, 2020	March 17 - 20, 2020
YGWA-1I	Upgradient	Scan	A-03
YGWA-1D	Upgradient	Scan	A-03
YGWA-2I	Upgradient	Scan	A-03
YGWA-3I	Upgradient	Scan	A-03
YGWA-3D	Upgradient	Scan	A-03
YGWA-14S	Downgradient	Scan	A-03
YGWA-30I	Downgradient	Scan	A-03
YGWC-26S	Downgradient	Scan	A-03
YGWC-26I	Downgradient	Scan	A-03
YGWC-27S	Downgradient	Scan	A-03
YGWC-27I	Downgradient	Scan	A-03
YGWC-28S	Downgradient	Scan	A-03
YGWC-28I	Downgradient	Scan	A-03
YGWC-29I	Downgradient	Scan	A-03

**Notes:**

1. Scan = All wells analyzed per Appendix IV.
2. A-XX indicates the Assessment Event Number (Appendix III and Detected Appendix IV).

**Table 3. Summary of Groundwater Elevations**  
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**Georgia Power Company**  
**Plant Yates - AP-2**

Well ID	Date	TOC Elevation (ft)	Depth to Water (bTOC)	Groundwater Elevation (ft)
YGWA-1I	2/10/2020	836.60	37.37	799.23
YGWA-1D	2/10/2020	837.25	43.49	793.76
YGWA-2I	2/10/2020	866.25	45.31	820.94
YGWA-3I	2/10/2020	796.55	52.22	744.33
YGWA-3D	2/11/2020	796.78	30.25	766.53
YGWA-14S	2/11/2020	748.76	15.83	732.93
YGWA-30I	2/11/2020	762.58	40.62	721.96
YGWC-26S	2/10/2020	716.28	19.31	696.97
YGWC-26I	2/10/2020	715.91	21.99	693.92
YGWC-27S	2/10/2020	716.52	24.39	692.13
YGWC-27I	2/10/2020	716.19	24.73	691.46
YGWC-28S	2/10/2020	717.95	21.71	696.24
YGWC-28I	2/10/2020	717.93	21.97	695.96
YGWC-29I	2/10/2020	717.39	24.76	692.63
PZ-01S	2/10/2020	836.84	32.51	804.33
PZ-03S	2/10/2020	796.39	35.73	760.66
PZ-13S	2/10/2020	807.79	35.78	772.01
PZ-13I	2/10/2020	807.62	39.19	768.43
PZ-14I	2/11/2020	749.06	17.2	731.86
PZ-25S	2/11/2020	766.60	35.12	731.48
PZ-25I	2/11/2020	766.38	36.17	730.21
PZ-31S	2/11/2020	738.62	13.91	724.71
<b>March 2020</b>				
YGWA-1I	3/16/2020	836.60	34.18	802.42
YGWA-1D	3/16/2020	837.25	45.52	791.73
YGWA-2I	3/16/2020	866.25	42.94	823.31
YGWA-3I	3/16/2020	796.55	52.25	744.30
YGWA-3D	3/16/2020	796.78	28.98	767.80
YGWA-14S	3/16/2020	748.76	12.76	736.00
YGWA-30I	3/16/2020	762.58	38.07	724.51
YGWC-26S	3/16/2020	716.28	19.71	696.57
YGWC-26I	3/16/2020	715.91	21.82	694.09
YGWC-27S	3/16/2020	716.52	24.02	692.50
YGWC-27I	3/16/2020	716.19	24.23	691.96
YGWC-28S	3/16/2020	717.95	22.14	695.81
YGWC-28I	3/16/2020	717.93	22.37	695.56
YGWC-29I	3/16/2020	717.39	24.64	692.75
PZ-01S	3/16/2020	836.84	29.97	806.87
PZ-03S	3/16/2020	796.39	33.3	763.09
PZ-13S	3/16/2020	807.79	31.98	775.81
PZ-13I	3/16/2020	807.62	36.45	771.17
PZ-14I	3/16/2020	749.06	14.54	734.52
PZ-25S	3/16/2020	766.60	34.63	731.97
PZ-25I	3/16/2020	766.38	35.98	730.40
PZ-31S	3/16/2020	738.62	13.93	724.69

**Notes:**

\* Depth to water recorded from transducer reading on March 17, 2020.

Elevation is presented in U.S. Survey Feet (North American Vertical Datum of 1988) based on June 2020 survey.

**Acronyms and Abbreviations:**

bTOC = below top of casing

ft = feet

TOC = top of casing

Equation

$$V = K \frac{(dh/dl)}{n_e} \quad \text{where: } V = \text{groundwater velocity}$$

K = hydraulic conductivity  
 $dh/dl$  = hydraulic gradient  
 $n_e$  = effective porosity

Values Used in Calculation

<b>Value</b>		<b>Source</b>
$K_{\max}$ :	3.02E-03 cm/sec 8.57 ft/day	See note 1
$K_{\min}$ :	1.00E-06 cm/sec 0.003 ft/day	
$K_{\text{avg}}$	1.50E-04 cm/sec 0.43 ft/day	
$i_1$ = 0.047 $i_2$ = 0.027 $i_3$ = 0.020 $i_{\text{avg}}$ = 0.031	unitless unitless unitless unitless	Hydraulic gradient from: PZ-01S to YGWA-14S PZ-13S to YGWC-28 YGWA-14 to PZ-31S Average
$n_e$ = 0.20	unitless	See note 2

Minimum Linear Flow Velocity

$$V_{\min} = \frac{(0.07)(0.031)}{0.20}$$

$$V_{\min} = 0.0119 \text{ ft/day, or } 4.34 \text{ ft/year}$$

Maximum Linear Flow Velocity

$$V_{\max} = \frac{(8.57)(0.031)}{0.20}$$

$$V_{\max} = 1.45 \text{ ft/day, or } 529 \text{ ft/year}$$

Average Linear Flow Velocity

$$V_{\text{avg}} = \frac{(0.43)(0.031)}{0.2}$$

$$V_{\text{avg}} = 0.073 \text{ ft/day, or } 27 \text{ ft/year}$$

Notes:

1. Slug tests performed by Atlantic Coast Consulting, Inc. at AP-2 (2014-2017)
2. Default value recommended by USEPA for silty sand-type soil (USEPA 1996).

**Table 5. Groundwater Analytical Data - February and March 2020**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - AP-2**

Analyte	YGWA-1I	YGWA-1I	YGWA-1D	YGWA-1D	YGWA-2I	YGWA-2I	YGWA-3I	YGWA-3I
	2/10/2020	3/18/2020	2/10/2020	3/19/2020	2/11/2020	3/19/2020	2/11/2020	3/19/2020
Appendix III	pH	6.10	6.19	7.20	7.03	7.38	7.22	7.09
	Boron	--	0.0087 J	--	0.0085 J	--	0.0073 J	--
	Calcium	--	2.1	--	15.0	--	27.4	--
	Chloride	--	1.4	--	1.1	--	0.97 J	--
	Fluoride	< 0.050	< 0.050	0.061 J	0.064 J	0.075 J	0.093 J	0.094 J
	Sulfate	--	5.3	--	10	--	12.4	--
	Total Dissolved Solids	--	35.0	--	116	--	148	--
Appendix IV	Antimony	< 0.00027	0.00040 JB	0.00088 J	< 0.00027	0.00036 J	0.00030 JB	< 0.00027
	Arsenic	0.00050 JB	< 0.00035	0.0026 JB	0.00095 J	0.0044 JB	0.00066 J	0.0041 JB
	Barium	0.0091 J	0.0084 J	0.0066 J	0.0076 J	0.0036 J	0.0036 J	0.0031 J
	Beryllium	< 0.000074	< 0.000074	< 0.000074	< 0.000074	< 0.000074	< 0.000074	< 0.000074
	Cadmium	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011
	Chromium	< 0.00039	0.00044 J	0.00042 J	0.00084 J	< 0.00039	0.00048 J	< 0.00039
	Cobalt	0.0016 J	0.00087 J	< 0.00030	< 0.00030	< 0.00030	< 0.00030	< 0.00030
	Fluoride	< 0.050	< 0.050	0.061 J	0.064 J	0.075 J	0.093 J	0.094 J
	Lead	< 0.000046	< 0.000046	0.000049 J	0.00012 J	< 0.000046	< 0.000046	< 0.000046
	Lithium	0.0023 J	0.0024 J	0.011 J	0.013 J	0.0012 J	0.0022 J	0.013 J
	Mercury	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014
	Molybdenum	0.0062 J	0.0056 J	0.0087 J	0.0088 J	0.0057 J	0.0046 J	0.0030 J
	Combined Radium - 226/228	1.25 U	0.458 U	1.41	1.1	0.817 U	0.715 U	1.85
	Selenium	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
	Thallium	0.000055 J	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052	< 0.000052

**Table 5. Groundwater Analytical Data - February and March 2020**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - AP-2**

	Analyte	YGWA-3D	YGWA-3D	YGWA-14S	YGWA-14S	YGWA-30I	YGWA-30I	YGWC-26S	YGWC-26S
		2/12/2020	3/19/2020	2/12/2020	3/18/2020	2/12/2020	3/19/2020	2/13/2020	3/19/2020
Appendix III	pH	7.83	7.65	5.48	5.38	5.80	6.00	5.29	5.46
	Boron	--	0.0073 J	--	0.033 J	--	0.0052 J	--	0.73
	Calcium	--	31.5	--	1.1	--	1.2	--	13.0
	Chloride	--	1.2	--	5.4	--	1.8	--	15.4
	Fluoride	0.40	0.51	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Sulfate	--	9.0	--	9.9	--	1.6	--	99.4
	Total Dissolved Solids	--	146	--	57	--	47.0	--	194
Appendix IV	Antimony	< 0.00027	0.00064 JB	0.00028 J	< 0.00027	< 0.00027	< 0.00027	0.0016 J	0.0017 JB
	Arsenic	0.0038 JB	< 0.00035	< 0.00035	< 0.00035	0.0032 JB	< 0.00035	< 0.00035	< 0.00035
	Barium	0.0062 J	0.0072 J	0.0076 J	0.0080 J	0.0073 J	0.0074 J	0.025	0.027
	Beryllium	< 0.000074	< 0.000074	0.00023 J	0.00021 J	< 0.000074	< 0.000074	0.00015 J	0.00012 J
	Cadmium	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011
	Chromium	< 0.00039	< 0.00039	< 0.00065 J	< 0.00039	< 0.00039	< 0.00039	0.0012 J	0.0018 J
	Cobalt	< 0.00030	< 0.00030	< 0.00030	< 0.00030	0.014	0.014	0.0019 J	0.0021 J
	Fluoride	0.40	0.51	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
	Lead	< 0.000046	0.00017 J	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	0.00010 J
	Lithium	0.019 J	0.023 J	< 0.00078	< 0.00078	0.0013 J	0.0012 J	< 0.00078	< 0.00078
	Mercury	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014	--
	Molybdenum	0.013	0.013	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095	< 0.00095
	Combined Radium - 226/228	3.87	3.96	1.11 U	0.207 U	0.301 U	1	0.178	0.796 U
	Selenium	< 0.0013	< 0.0013	< 0.0013	0.0015 J	< 0.0013	< 0.0013	< 0.0013	< 0.0013
	Thallium	< 0.000052	< 0.000052	0.000089 J	< 0.000052	< 0.000052	< 0.000052	0.000057 J	0.000055 J

**Table 5. Groundwater Analytical Data - February and March 2020**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - AP-2**

Analyte		YGWC-26I	YGWC-26I	YGWC-27S	YGWC-27S	YGWC-27I	YGWC-27I	YGWC-28S	YGWC-28S
		2/13/2020	3/20/2020	2/13/2020	3/20/2020	2/13/2020	3/20/2020	2/13/2020	3/19/2020
Appendix III	pH	5.93	5.94	6.31	6.18	6.40	6.32	6.53	6.98
	Boron	--	0.94	--	1.4	--	2.1	--	2.5
	Calcium	--	17.2	--	42.1	--	30.3	--	30.4
	Chloride	--	17.7	--	17.7	--	13.0	--	18.1
	Fluoride	< 0.050	0.071 J	0.11 J	0.097 J	< 0.050	< 0.050	0.18 J	0.16 J
	Sulfate	--	84.7	--	21.1	--	5.2	--	1.7
	Total Dissolved Solids	--	211	--	182	--	195	--	202
Appendix IV	Antimony	0.00052 J	0.00059 JB	< 0.00027	0.00030 JB	< 0.00027	0.00033 JB	< 0.00027	< 0.00027
	Arsenic	< 0.00035	< 0.00035	< 0.00035	< 0.00035	0.00055 J	0.00042 J	0.00065 J	0.00051 J
	Barium	0.060	0.063	0.097	0.095	0.063	0.062	0.21	0.20
	Beryllium	0.00014 J	< 0.000074	< 0.000074	< 0.000074	0.00021 J	0.00023 J	< 0.000074	< 0.000074
	Cadmium	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011
	Chromium	0.00044 J	0.00093 J	< 0.00039	0.00050 J	< 0.00039	< 0.00039	< 0.00039	0.00049 J
	Cobalt	< 0.00030	< 0.00030	0.0026 J	0.0022 J	0.012	0.014	0.00092 J	0.00093 J
	Fluoride	< 0.050	0.071 J	0.11 J	0.097 J	< 0.050	< 0.050	0.18 J	0.16 J
	Lead	< 0.000046	0.000071 J	0.000062 J	0.000085 J	< 0.000046	< 0.000046	0.000054 J	0.000075 J
	Lithium	0.0073 J	0.0072 J	< 0.00078	< 0.00078	0.0079 J	0.0091 J	< 0.00078	< 0.00078
	Mercury	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014	--
	Molybdenum	< 0.00095	< 0.00095	< 0.00095	< 0.00095	0.0014 J	0.0014 J	< 0.00095	< 0.00095
	Combined Radium - 226/228	1.86	2.03	0.961 U	1.50	4.48	4.13	1.04	1.01 U
	Selenium	0.0019 J	0.0022 J	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013	< 0.0013
	Thallium	< 0.000052	< 0.000052	0.00010 J	0.00011 J	< 0.000052	< 0.000052	< 0.000052	< 0.000052

**Table 5. Groundwater Analytical Data - February and March 2020**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - AP-2**

	Analyte	YGWC-28I	YGWC-28I	YGWC-29I	YGWC-29I
		2/13/2020	3/19/2020	2/13/2020	3/20/2020
Appendix III	pH	6.49	7.01	6.32	6.17
	Boron	--	2.4	--	0.80
	Calcium	--	37.3	--	12.7
	Chloride	--	16.0	--	11.3
	Fluoride	0.14 J	0.070 J	0.053 J	0.057 J
	Sulfate	--	9.1	--	33.0
	Total Dissolved Solids	--	212	--	137
Appendix IV	Antimony	< 0.00027	< 0.00027	< 0.00027	< 0.00027
	Arsenic	< 0.00035	< 0.00035	< 0.00035	< 0.00035
	Barium	0.089	0.089	0.053	0.057
	Beryllium	< 0.000074	< 0.000074	< 0.000074	< 0.000074
	Cadmium	0.00013 J	0.00016 J	0.00018 J	0.00022 J
	Chromium	0.00047 J	< 0.00039	< 0.00039	< 0.00039
	Cobalt	< 0.00030	< 0.00030	< 0.00030	< 0.00030
	Fluoride	0.14 J	0.070 J	0.053 J	0.057 J
	Lead	< 0.000046	< 0.000046	< 0.000046	< 0.000046
	Lithium	0.0069 J	0.0070 J	0.0057 J	0.0051 J
	Mercury	< 0.00014	--	< 0.00014	--
	Molybdenum	0.0013 J	0.0014 J	< 0.00095	< 0.00095
	Combined Radium - 226/228	1.12 U	0.913 U	0.806 U	1.42
	Selenium	< 0.0013	< 0.0013	< 0.0013	< 0.0013
	Thallium	< 0.000052	< 0.000052	< 0.000052	< 0.000052

**Notes:**

1. Analytical results are reported in milligrams per liter except for combined radium results, which are reported in picoCuries per liter and pH in standard units.

2. Appendix III = Indicator parameters evaluated during Detection Monitoring.

3. Appendix IV = Parameters evaluated during Assessment Monitoring.

-- Not analyzed for this constituent.

< Analyte was not detected above the laboratory method detection limit (MDL).

NA = Not applicable; analyte does not have an MCL, but will be further evaluated statistically, as required by the USEPA Coal Combustion Residuals rule.

**Laboratory Qualifiers:**

B = Analyte was detected in associated method blank.

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

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

U - the substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not

**Table 6. Background Levels and Groundwater Protection Standards**  
**2020 Semiannual Groundwater Monitoring and Corrective Action Report**  
**Georgia Power Company**  
**Plant Yates - AP-2**

Constituent	Units	Background	Federal GWPS	State GWPS
Antimony	mg/L	0.003	0.006	0.006
Arsenic	mg/L	0.005	0.01	0.01
Barium	mg/L	0.012	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.0025	0.005	0.005
Chromium	mg/L	0.01	0.1	0.1
Cobalt	mg/L	0.035	0.035	0.035
Combined Radium - 226/228	pCi/L	4.1	5	5
Fluoride	mg/L	0.68	4	4
Lead	mg/L	0.005	0.015	0.005
Lithium	mg/L	0.03	0.04	0.03
Mercury	mg/L	0.0005	0.002	0.002
Molybdenum	mg/L	0.014	0.1	0.014
Selenium	mg/L	0.01	0.05	0.05
Thallium	mg/L	0.001	0.002	0.002

**Notes:**

1. Site background: Tolerance limits calculated from pooled upgradient well data.
2. Federal GWPS = Groundwater Protection Standard per 40 CFR §257.95(h).
3. The background tolerance limit (TL) used to evaluate the cobalt State GWPS is greater than the federally promulgated level of 0.006 mg/L.

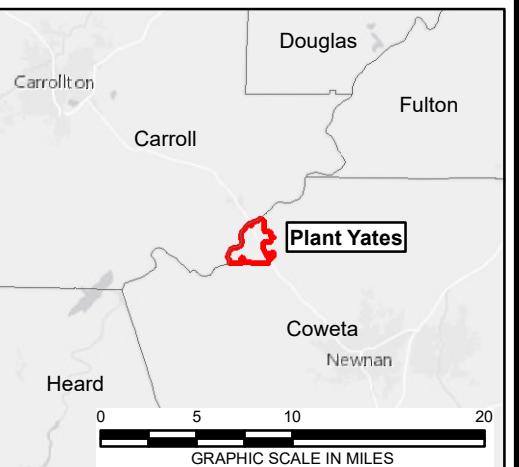
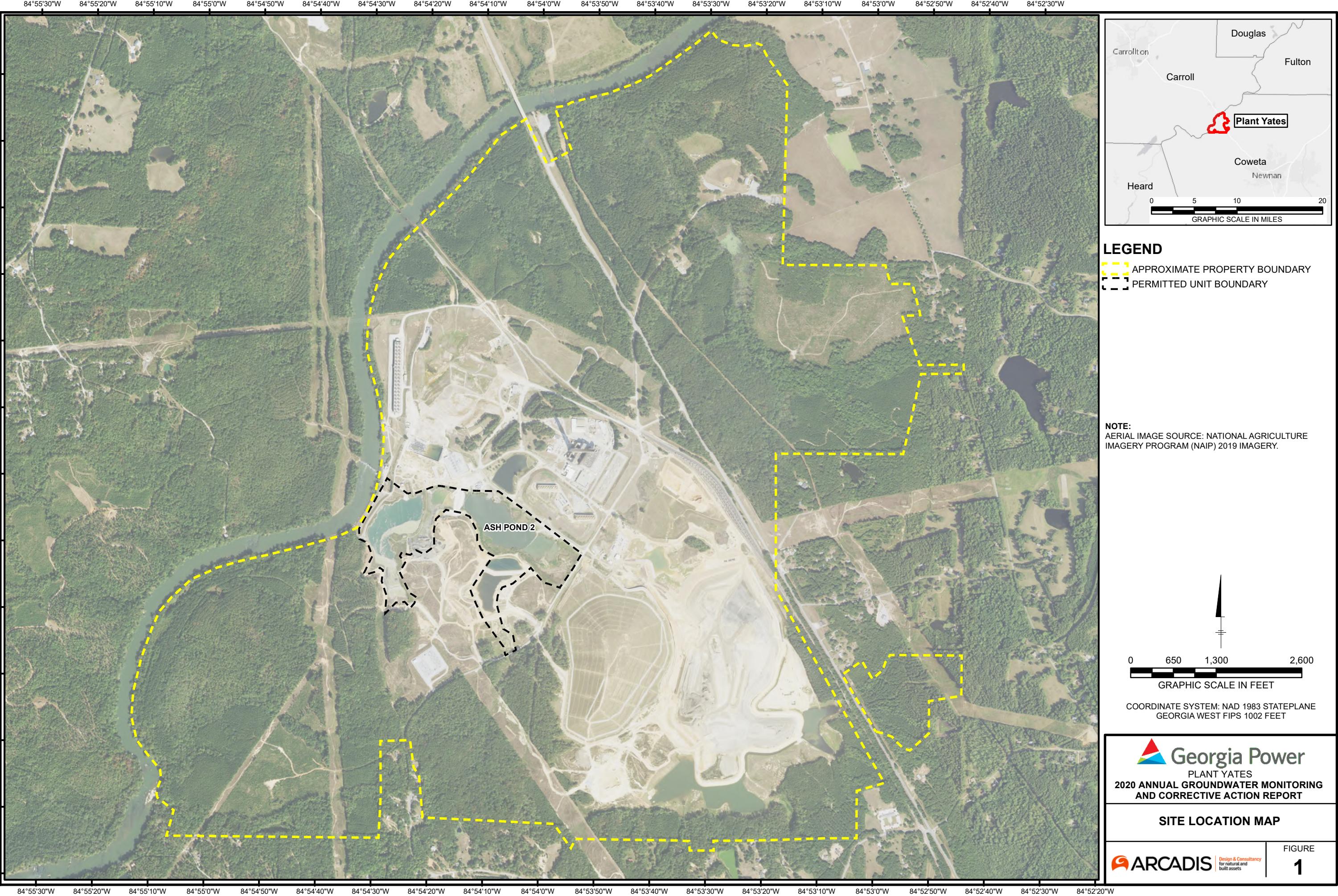
**Acronyms and Abbreviations:**

mg/L = milligrams per liter

pCi/L = picocuries per liter

## FIGURES





## LEGEND

- APPROXIMATE PROPERTY BOUNDARY (Yellow dashed line)
- PERMITTED UNIT BOUNDARY (Black dashed line)

**NOTE:**  
AERIAL IMAGE SOURCE: NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.

**GRAPHIC SCALE IN FEET:**  
0 650 1,300 2,600

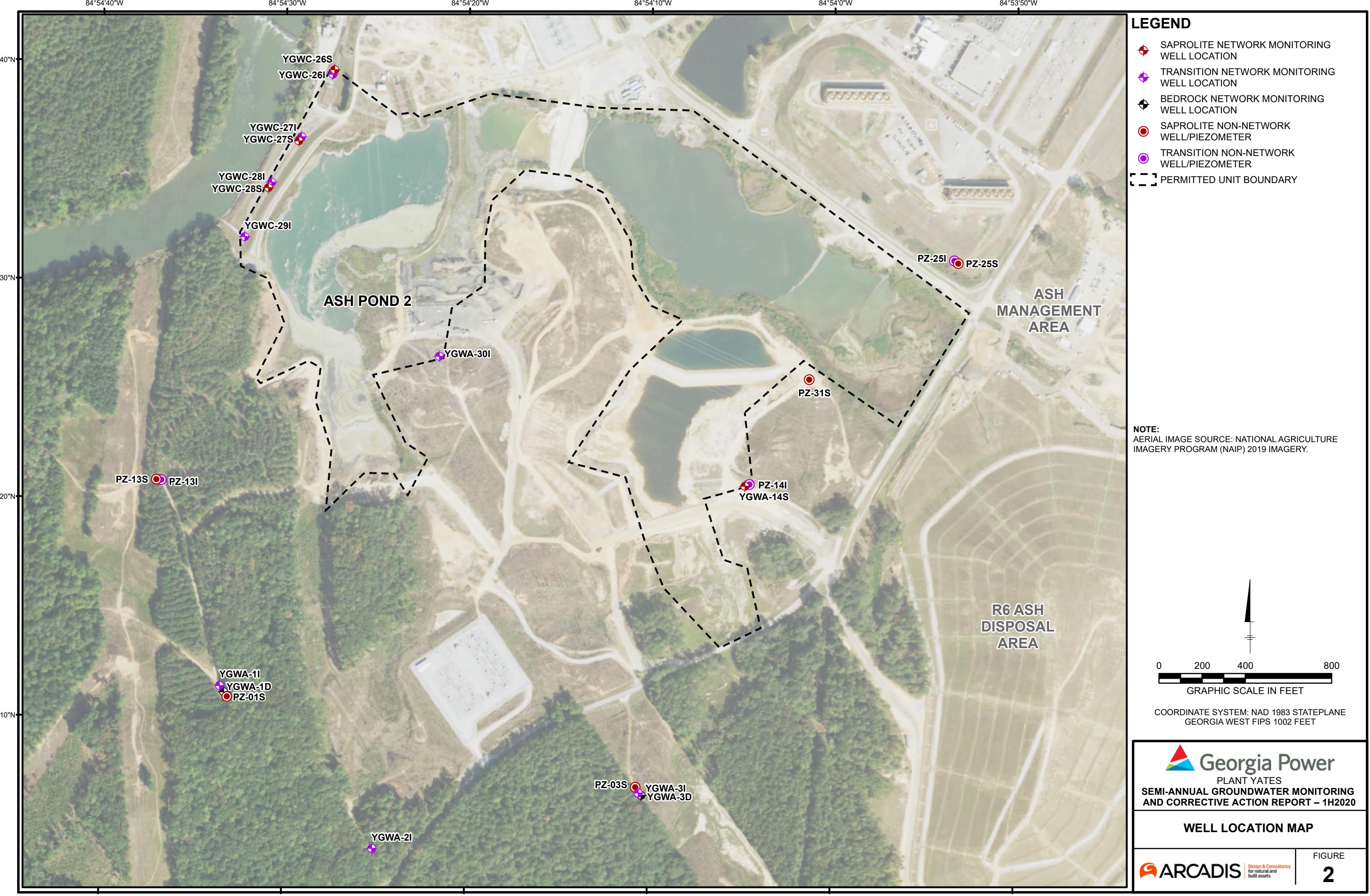
**COORDINATE SYSTEM:** NAD 1983 STATEPLANE GEORGIA WEST FIPS 1002 FEET

**Georgia Power**  
PLANT YATES  
2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

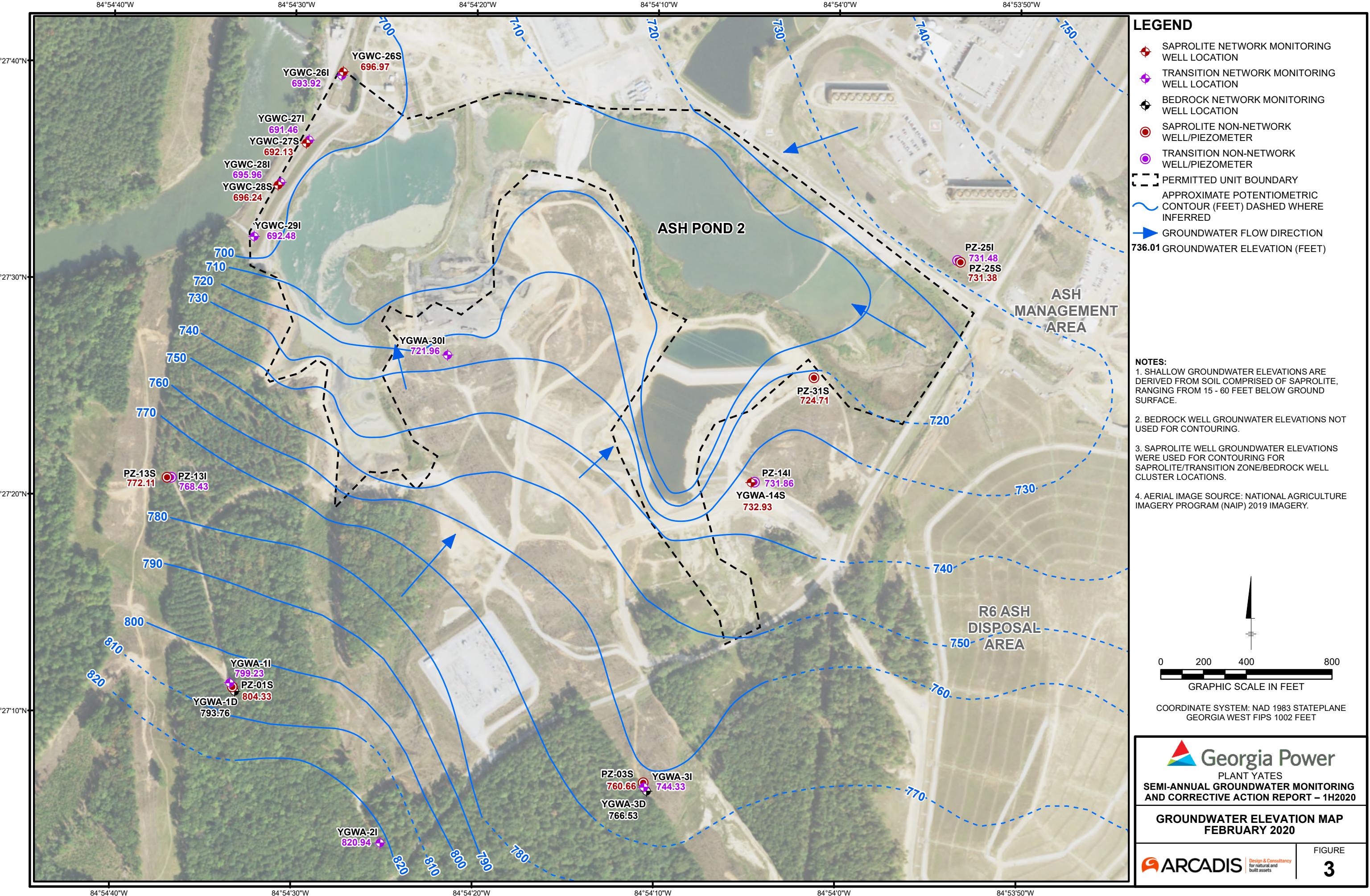
## SITE LOCATION MAP

**ARCADIS** | Design & Consultancy for natural and built assets

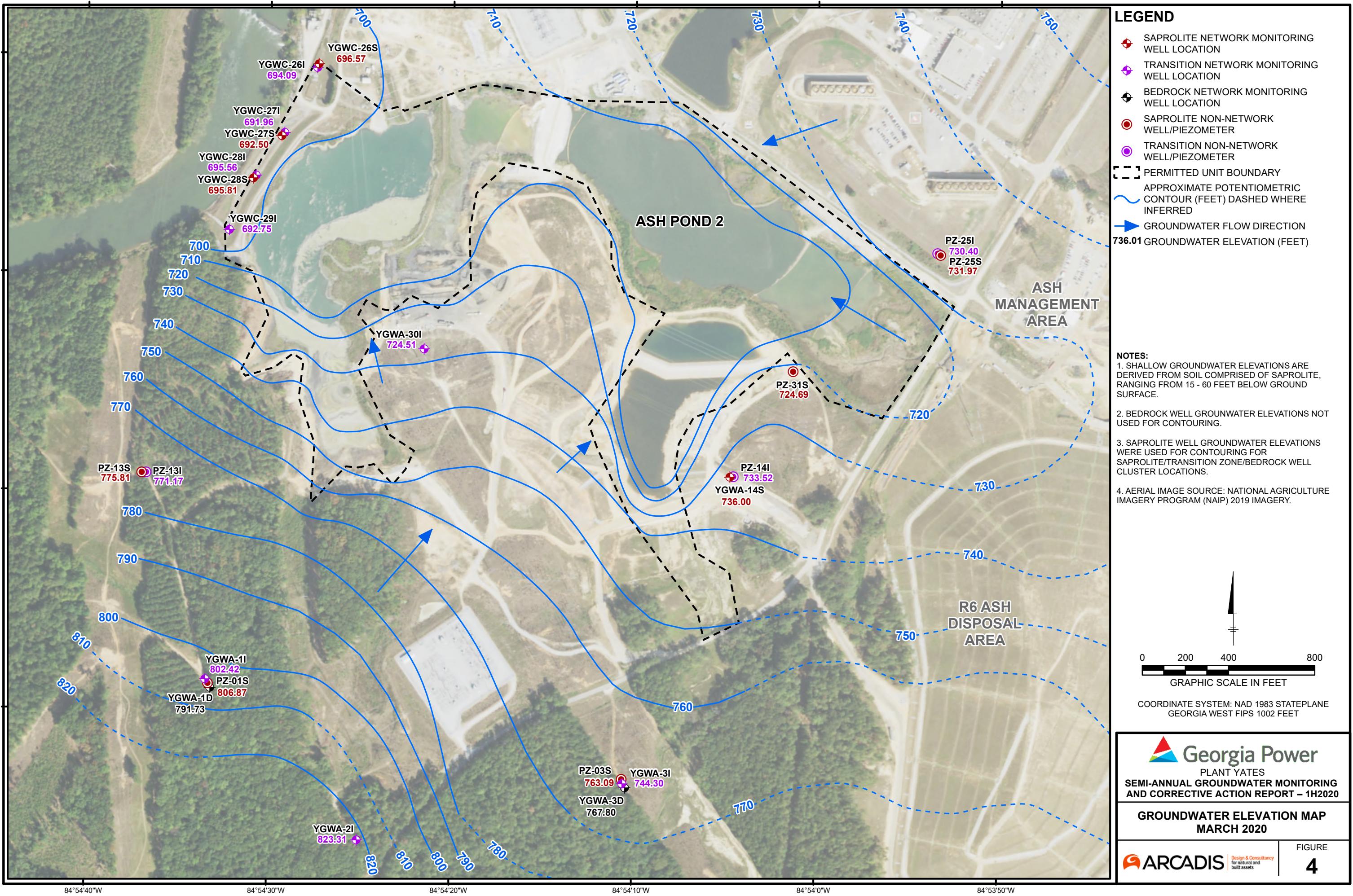
**FIGURE**  
**1**



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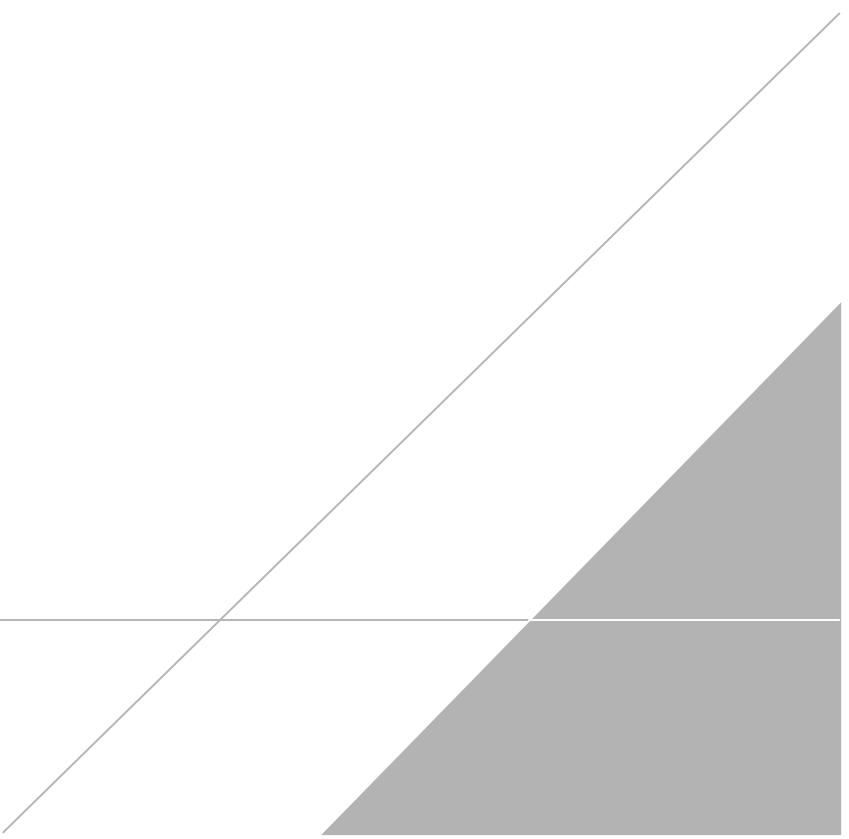


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# **APPENDIX A**

**Field Sampling Forms (February and March 2020)**



# Low-Flow Test Report:

Test Date / Time: 2/13/2020 11:01:59 AM

Project: Plant Yates - Ash Pond 2

Operator Name: Hunter Auld

Location Name: YGWC-26I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 59 ft Total Depth: 69.71 ft Initial Depth to Water: 21.15 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 64 ft Estimated Total Volume Pumped: 3.6 liter Flow Cell Volume: 90 ml Final Flow Rate: 120 ml/min Final Draw Down: 1.8 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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## Test Notes:

Sampled at 1130 on 2-13-20.

## Weather Conditions:

Cloudy, 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/13/2020 11:01 AM	00:00	5.82 pH	19.90 °C	0.00 µS/cm	8.80 mg/L		78.5 mV	21.15 ft	120.00 ml/min
2/13/2020 11:06 AM	05:00	6.34 pH	17.72 °C	235.22 µS/cm	1.33 mg/L	2.00 NTU	25.7 mV	21.30 ft	120.00 ml/min
2/13/2020 11:11 AM	10:00	5.96 pH	18.21 °C	233.03 µS/cm	0.49 mg/L	1.60 NTU	71.9 mV	21.30 ft	120.00 ml/min
2/13/2020 11:16 AM	15:00	5.94 pH	18.34 °C	232.59 µS/cm	0.37 mg/L	1.00 NTU	70.1 mV	21.30 ft	120.00 ml/min
2/13/2020 11:21 AM	20:00	5.93 pH	18.40 °C	233.73 µS/cm	0.29 mg/L	1.20 NTU	96.6 mV	21.30 ft	120.00 ml/min
2/13/2020 11:26 AM	25:00	5.93 pH	18.44 °C	235.44 µS/cm	0.23 mg/L	1.50 NTU	75.5 mV	21.30 ft	120.00 ml/min

## Samples

Sample ID:	Description:

# Low-Flow Test Report:

Test Date / Time: 2/13/2020 10:11:28 AM

Project: Plant Yates - Ash Pond 2

Operator Name: Hunter Auld

Location Name: YGWC-26S  Well Diameter: 2 in  Casing Type: PVC  Screen Length: 10 ft  Top of Screen: 30 ft  Total Depth: 40.26 ft  Initial Depth to Water: 18.56 ft	Pump Type: QED Bladder Pump  Tubing Type: Poly  Pump Intake From TOC: 35 ft  Estimated Total Volume Pumped: 6.8 liter  Flow Cell Volume: 90 ml  Final Flow Rate: 150 ml/min  Final Draw Down: 13.7 in	Instrument Used: Aqua TROLL 400  Serial Number: 714293
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## Test Notes:

Sampled at 1040 on 2-13-20. Extra rad.

## Weather Conditions:

Cloudy, 60s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/13/2020 10:11 AM	00:00	5.28 pH	18.17 °C	231.93 µS/cm	3.00 mg/L		152.7 mV	18.56 ft	150.00 ml/min
2/13/2020 10:16 AM	05:00	5.24 pH	17.96 °C	222.17 µS/cm	2.30 mg/L	1.90 NTU	121.4 mV	19.60 ft	150.00 ml/min
2/13/2020 10:21 AM	10:00	5.25 pH	18.02 °C	219.79 µS/cm	1.96 mg/L	1.90 NTU	185.3 mV	19.60 ft	150.00 ml/min
2/13/2020 10:26 AM	15:00	5.26 pH	18.02 °C	220.01 µS/cm	1.83 mg/L	1.80 NTU	187.6 mV	19.70 ft	150.00 ml/min
2/13/2020 10:31 AM	20:00	5.28 pH	18.03 °C	220.52 µS/cm	1.81 mg/L	1.80 NTU	186.6 mV	19.70 ft	150.00 ml/min
2/13/2020 10:36 AM	25:00	5.29 pH	18.08 °C	220.94 µS/cm	1.72 mg/L	1.70 NTU	186.1 mV	19.70 ft	150.00 ml/min

## Samples

Sample ID:	Description:

# Low-Flow Test Report:

Test Date / Time: 2/13/2020 9:49:41 AM

Project: Plant Yates - AP 2

Operator Name: Anna Schnittker

Location Name: YGWC-27I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 69 ft Total Depth: 79.84 ft Initial Depth to Water: 24.7 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 75 ft Estimated Total Volume Pumped: 4.8 L Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 0 ft	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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## Test Notes:

Sample time 1025

## Weather Conditions:

Cloudy 60s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/13/2020 9:49 AM	00:00	6.51 pH	18.45 °C	283.82 µS/cm	1.08 mg/L	3.20 NTU	-81.6 mV	24.70 ft	160.00 ml/min
2/13/2020 9:54 AM	05:00	6.47 pH	18.13 °C	284.37 µS/cm	0.64 mg/L	2.30 NTU	-89.3 mV	24.70 ft	160.00 ml/min
2/13/2020 9:59 AM	10:00	6.45 pH	18.03 °C	286.84 µS/cm	0.49 mg/L	1.50 NTU	-95.3 mV	24.70 ft	160.00 ml/min
2/13/2020 10:04 AM	15:00	6.44 pH	18.06 °C	288.90 µS/cm	0.37 mg/L	1.30 NTU	-96.5 mV	24.70 ft	160.00 ml/min
2/13/2020 10:09 AM	20:00	6.42 pH	18.07 °C	288.37 µS/cm	0.32 mg/L	0.90 NTU	-88.1 mV	24.70 ft	160.00 ml/min
2/13/2020 10:14 AM	25:00	6.41 pH	18.03 °C	286.12 µS/cm	0.30 mg/L	0.80 NTU	-93.1 mV	24.70 ft	160.00 ml/min
2/13/2020 10:19 AM	30:00	6.40 pH	17.98 °C	286.99 µS/cm	0.29 mg/L	0.60 NTU	-85.3 mV	24.70 ft	160.00 ml/min

## Samples

Sample ID:	Description:

# Low-Flow Test Report:

**Test Date / Time:** 2/13/2020 10:52:26 AM

**Project:** Plant Yates - AP 2

**Operator Name:** Anna Schnittker

<b>Location Name:</b> YGWC-27S <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 30.2 ft <b>Total Depth:</b> 40.26 ft <b>Initial Depth to Water:</b> 23.34 ft	<b>Pump Type:</b> QED Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 35.2 ft <b>Estimated Total Volume Pumped:</b> <b>9.9 liter</b> <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 180 ml/min <b>Final Draw Down:</b> 1 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 714302
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**Test Notes:**

Sample time 1150

**Weather Conditions:**

Cloudy 60s

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/13/2020 10:52 AM	00:00	6.32 pH	18.45 °C	360.28 µS/cm	3.47 mg/L	5.60 NTU	-28.1 mV	23.40 ft	180.00 ml/min
2/13/2020 10:57 AM	05:00	6.30 pH	18.51 °C	365.42 µS/cm	3.06 mg/L	5.40 NTU	-16.1 mV	23.40 ft	180.00 ml/min
2/13/2020 11:02 AM	10:00	6.30 pH	18.47 °C	377.92 µS/cm	1.87 mg/L	6.10 NTU	-38.1 mV	23.40 ft	180.00 ml/min
2/13/2020 11:07 AM	15:00	6.31 pH	18.46 °C	375.35 µS/cm	3.91 mg/L	4.30 NTU	-40.6 mV	23.40 ft	180.00 ml/min
2/13/2020 11:12 AM	20:00	6.32 pH	18.46 °C	338.22 µS/cm	1.59 mg/L	5.60 NTU	-42.2 mV	23.40 ft	180.00 ml/min
2/13/2020 11:17 AM	25:00	6.29 pH	18.59 °C	361.49 µS/cm	1.65 mg/L	5.00 NTU	-42.9 mV	23.40 ft	180.00 ml/min
2/13/2020 11:22 AM	30:00	6.32 pH	18.52 °C	365.88 µS/cm	1.66 mg/L	5.00 NTU	-45.0 mV	23.40 ft	180.00 ml/min
2/13/2020 11:27 AM	35:00	6.31 pH	18.43 °C	377.41 µS/cm	1.96 mg/L	4.10 NTU	-45.3 mV	23.40 ft	180.00 ml/min
2/13/2020 11:32 AM	40:00	6.32 pH	18.43 °C	315.95 µS/cm	1.46 mg/L	4.00 NTU	-45.8 mV	23.40 ft	180.00 ml/min
2/13/2020 11:37 AM	45:00	6.33 pH	18.45 °C	381.25 µS/cm	1.82 mg/L	3.80 NTU	-48.0 mV	23.40 ft	180.00 ml/min
2/13/2020 11:42 AM	50:00	6.32 pH	18.49 °C	380.16 µS/cm	1.46 mg/L	3.50 NTU	-47.5 mV	23.40 ft	180.00 ml/min
2/13/2020 11:47 AM	55:00	6.31 pH	18.56 °C	383.43 µS/cm	0.28 mg/L	3.10 NTU	-47.8 mV	23.40 ft	180.00 ml/min

## Samples

Sample ID:	Description:
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Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 2/13/2020 2:07:16 PM

Project: Plant Yates - AP 2

Operator Name: Anna Schnittker

Location Name: YGWC-28I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 59.9 ft Total Depth: 69.89 ft Initial Depth to Water: 21.15 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 64.9 ft Estimated Total Volume Pumped: 5.2 liter Flow Cell Volume: 90 ml Final Flow Rate: 130 ml/min Final Draw Down: 8 in	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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## Test Notes:

Sample time: 1450

## Weather Conditions:

Cloudy 60s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/13/2020 2:07 PM	00:00	6.59 pH	19.33 °C	306.47 µS/cm	4.59 mg/L	1.40 NTU	-62.3 mV	21.70 ft	130.00 ml/min
2/13/2020 2:12 PM	05:00	6.52 pH	18.47 °C	332.35 µS/cm	3.39 mg/L	1.10 NTU	-41.0 mV	21.80 ft	130.00 ml/min
2/13/2020 2:17 PM	10:00	6.54 pH	18.52 °C	357.05 µS/cm	3.39 mg/L	1.30 NTU	-22.8 mV	21.80 ft	130.00 ml/min
2/13/2020 2:22 PM	15:00	6.55 pH	18.47 °C	354.96 µS/cm	4.08 mg/L	1.60 NTU	-40.4 mV	21.80 ft	130.00 ml/min
2/13/2020 2:27 PM	20:00	6.50 pH	17.67 °C	357.40 µS/cm	1.56 mg/L	0.80 NTU	-11.0 mV	21.80 ft	130.00 ml/min
2/13/2020 2:32 PM	25:00	6.49 pH	18.25 °C	351.63 µS/cm	1.92 mg/L	0.90 NTU	8.1 mV	21.80 ft	130.00 ml/min
2/13/2020 2:37 PM	30:00	6.50 pH	18.12 °C	360.01 µS/cm	1.58 mg/L	0.80 NTU	-5.1 mV	21.80 ft	130.00 ml/min
2/13/2020 2:42 PM	35:00	6.50 pH	17.95 °C	357.62 µS/cm	1.53 mg/L	0.70 NTU	-34.1 mV	21.80 ft	130.00 ml/min
2/13/2020 2:47 PM	40:00	6.49 pH	17.80 °C	356.66 µS/cm	1.55 mg/L	0.70 NTU	-35.8 mV	21.80 ft	130.00 ml/min

## Samples

Sample ID:	Description:
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# Low-Flow Test Report:

**Test Date / Time:** 2/13/2020 12:33:55 PM

**Project:** Plant Yates - AP 2

**Operator Name:** Anna Schnittker

<b>Location Name:</b> YGWC-28S <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 34.8 ft <b>Total Depth:</b> 44.85 ft <b>Initial Depth to Water:</b> 21.08 ft	<b>Pump Type:</b> QED Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 39.8 ft <b>Estimated Total Volume Pumped:</b> <b>15 liter</b> <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 215 ml/min <b>Final Draw Down:</b> 6 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 714302
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**Test Notes:**

Sample time: 1345

**Weather Conditions:**

Cloudy 60s

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/13/2020 12:33 PM	00:00	6.55 pH	18.40 °C	349.18 µS/cm	4.70 mg/L	18.10 NTU	-132.7 mV	21.60 ft	215.00 ml/min
2/13/2020 12:38 PM	05:00	6.56 pH	18.88 °C	375.87 µS/cm	2.82 mg/L	10.10 NTU	-175.6 mV	21.60 ft	215.00 ml/min
2/13/2020 12:43 PM	10:00	6.56 pH	18.92 °C	378.86 µS/cm	6.92 mg/L	8.60 NTU	-178.9 mV	21.60 ft	215.00 ml/min
2/13/2020 12:48 PM	15:00	6.54 pH	18.74 °C	381.47 µS/cm	6.67 mg/L	8.50 NTU	-179.3 mV	21.60 ft	215.00 ml/min
2/13/2020 12:53 PM	20:00	6.55 pH	18.70 °C	379.12 µS/cm	6.47 mg/L	9.10 NTU	-177.2 mV	21.60 ft	215.00 ml/min
2/13/2020 12:58 PM	25:00	6.52 pH	18.84 °C	371.88 µS/cm	1.51 mg/L	9.00 NTU	-177.2 mV	21.60 ft	215.00 ml/min
2/13/2020 1:03 PM	30:00	6.52 pH	18.92 °C	381.69 µS/cm	3.39 mg/L	9.00 NTU	-175.3 mV	21.60 ft	215.00 ml/min
2/13/2020 1:08 PM	35:00	6.51 pH	18.87 °C	382.76 µS/cm	4.31 mg/L	7.80 NTU	-172.8 mV	21.60 ft	215.00 ml/min
2/13/2020 1:13 PM	40:00	6.51 pH	18.78 °C	382.58 µS/cm	5.36 mg/L	6.50 NTU	-162.6 mV	21.60 ft	215.00 ml/min
2/13/2020 1:18 PM	45:00	6.50 pH	18.76 °C	386.71 µS/cm	2.40 mg/L	5.80 NTU	-172.5 mV	21.60 ft	215.00 ml/min
2/13/2020 1:23 PM	50:00	6.51 pH	18.76 °C	383.69 µS/cm	3.02 mg/L	5.60 NTU	-168.2 mV	21.60 ft	215.00 ml/min
2/13/2020 1:28 PM	55:00	6.51 pH	18.78 °C	380.96 µS/cm	4.44 mg/L	5.50 NTU	-160.5 mV	21.60 ft	215.00 ml/min
2/13/2020 1:33 PM	01:00:00	6.55 pH	18.87 °C	409.28 µS/cm	0.32 mg/L	4.20 NTU	-173.8 mV	21.60 ft	215.00 ml/min

2/13/2020 1:38 PM	01:05:00	6.54 pH	18.82 °C	408.42 µS/cm	0.18 mg/L	4.50 NTU	-162.6 mV	21.60 ft	215.00 ml/min
2/13/2020 1:43 PM	01:10:00	6.53 pH	18.83 °C	408.21 µS/cm	0.16 mg/L	4.30 NTU	-162.5 mV	21.60 ft	215.00 ml/min

## Samples

Sample ID:	Description:

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 2/13/2020 12:35:15 PM

Project: Plant Yates - Ash Pond 2

Operator Name: Hunter Auld

Location Name: YGWC-29I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 29 ft Total Depth: 39.46 ft Initial Depth to Water: 23.93 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 34 ft Estimated Total Volume Pumped: 3 liter Flow Cell Volume: 90 ml Final Flow Rate: 100 ml/min Final Draw Down: 9.2 in	Instrument Used: Aqua TROLL 400 Serial Number: 714293
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## Test Notes:

Sampled at 1302 on 2-13-20.

## Weather Conditions:

Cloudy, 50s.

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 300	+/- 0.3	
2/13/2020 12:35 PM	00:00	6.94 pH	17.22 °C	186.32 µS/cm	7.22 mg/L		54.1 mV	23.93 ft	100.00 ml/min
2/13/2020 12:40 PM	05:00	6.42 pH	17.89 °C	190.71 µS/cm	3.53 mg/L	1.40 NTU	66.9 mV	24.30 ft	100.00 ml/min
2/13/2020 12:45 PM	10:00	6.33 pH	18.00 °C	188.29 µS/cm	1.82 mg/L	1.20 NTU	95.7 mV	24.30 ft	100.00 ml/min
2/13/2020 12:50 PM	15:00	6.31 pH	17.69 °C	189.02 µS/cm	1.03 mg/L	0.90 NTU	100.2 mV	24.50 ft	100.00 ml/min
2/13/2020 12:55 PM	20:00	6.32 pH	17.78 °C	189.99 µS/cm	1.00 mg/L	0.90 NTU	101.7 mV	24.60 ft	100.00 ml/min
2/13/2020 1:00 PM	25:00	6.32 pH	18.07 °C	189.14 µS/cm	1.09 mg/L	0.80 NTU	76.9 mV	24.70 ft	100.00 ml/min

## Samples

Sample ID:	Description:

# Low-Flow Test Report:

**Test Date / Time:** 2/10/2020 2:17:57 PM

**Project:** Plant Yates - AP 2

**Operator Name:** O. Fuquea

<b>Location Name:</b> YGWA-1D <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 178.6 ft <b>Total Depth:</b> 128.6 ft <b>Initial Depth to Water:</b> 48.39 ft	<b>Pump Type:</b> QED Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 123.6 ft <b>Estimated Total Volume Pumped:</b> <b>5.3 L</b> <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 150 ml/min <b>Final Draw Down:</b> 2 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 714344
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 10	+/- 100	+/- 0.3	
2/10/2020 2:17 PM	00:00	7.21 pH	14.39 °C	162.71 µS/cm	0.32 mg/L		-38.3 mV	48.39 ft	150.00 ml/min
2/10/2020 2:22 PM	05:00	7.23 pH	14.62 °C	157.02 µS/cm	0.25 mg/L	2.30 NTU	-83.3 mV	48.50 ft	150.00 ml/min
2/10/2020 2:23 PM	05:21	7.23 pH	14.62 °C	156.66 µS/cm	0.25 mg/L	1.60 NTU	-82.8 mV	48.50 ft	150.00 ml/min
2/10/2020 2:28 PM	10:21	7.21 pH	14.57 °C	154.65 µS/cm	0.24 mg/L	1.50 NTU	-50.3 mV	48.60 ft	150.00 ml/min
2/10/2020 2:33 PM	15:21	7.22 pH	14.57 °C	152.24 µS/cm	0.23 mg/L	1.41 NTU	-50.4 mV	48.60 ft	150.00 ml/min
2/10/2020 2:38 PM	20:21	7.21 pH	14.66 °C	150.44 µS/cm	0.23 mg/L	1.52 NTU	-50.5 mV	48.60 ft	150.00 ml/min
2/10/2020 2:43 PM	25:21	7.21 pH	14.58 °C	149.33 µS/cm	0.23 mg/L	1.14 NTU	-49.0 mV	48.60 ft	150.00 ml/min
2/10/2020 2:48 PM	30:21	7.21 pH	14.58 °C	148.50 µS/cm	0.23 mg/L	1.11 NTU	-47.4 mV	48.60 ft	150.00 ml/min
2/10/2020 2:53 PM	35:21	7.20 pH	14.50 °C	147.47 µS/cm	0.23 mg/L	1.22 NTU	-44.0 mV	48.60 ft	150.00 ml/min

## Samples

Sample ID:	Description:
YGWA-1D	Sampled at 1453. 53F rain.

# Low-Flow Test Report:

Test Date / Time: 2/10/2020 2:32:55 PM

Project: Plant Yates - AP 2

Operator Name: Anna Schnittker

<b>Location Name:</b> YGWA-1I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 44.9 ft <b>Total Depth:</b> 54.93 ft <b>Initial Depth to Water:</b> 37.37 ft	<b>Pump Type:</b> QED Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 49.9 ft <b>Estimated Total Volume Pumped:</b> 3 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 60 ml/min <b>Final Draw Down:</b> 4 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 714302
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## Test Notes:

## Weather Conditions:

Raining

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/10/2020 2:32 PM	00:00	8.56 pH	12.22 °C	0.00 µS/cm	10.55 mg/L		37.7 mV	38.70 ft	60.00 ml/min
2/10/2020 2:33 PM	00:43	8.55 pH	12.26 °C	0.00 µS/cm	10.54 mg/L		154.5 mV	38.70 ft	60.00 ml/min
2/10/2020 2:38 PM	05:43	6.35 pH	13.58 °C	134.96 µS/cm	3.94 mg/L	10.80 NTU	137.5 mV	38.70 ft	60.00 ml/min
2/10/2020 2:43 PM	10:43	6.38 pH	13.49 °C	80.04 µS/cm	2.36 mg/L	1.20 NTU	76.2 mV	38.70 ft	60.00 ml/min
2/10/2020 2:48 PM	15:43	6.35 pH	13.32 °C	72.51 µS/cm	4.66 mg/L	1.40 NTU	72.8 mV	38.70 ft	60.00 ml/min
2/10/2020 2:53 PM	20:43	6.30 pH	13.12 °C	69.32 µS/cm	4.60 mg/L	1.60 NTU	73.5 mV	38.70 ft	60.00 ml/min
2/10/2020 2:58 PM	25:43	6.28 pH	13.12 °C	65.70 µS/cm	7.35 mg/L	1.80 NTU	74.9 mV	38.70 ft	60.00 ml/min
2/10/2020 3:03 PM	30:43	6.20 pH	13.21 °C	61.64 µS/cm	7.96 mg/L	1.70 NTU	79.7 mV	38.70 ft	60.00 ml/min
2/10/2020 3:08 PM	35:43	6.18 pH	14.67 °C	53.76 µS/cm	9.21 mg/L	1.20 NTU	84.9 mV	38.70 ft	60.00 ml/min
2/10/2020 3:13 PM	40:43	6.12 pH	14.76 °C	50.84 µS/cm	9.11 mg/L	1.30 NTU	92.4 mV	38.70 ft	60.00 ml/min
2/10/2020 3:18 PM	45:43	6.09 pH	14.81 °C	51.27 µS/cm	9.06 mg/L	1.20 NTU	92.3 mV	38.70 ft	60.00 ml/min
2/10/2020 3:19 PM	46:51	6.10 pH	14.85 °C	52.62 µS/cm	9.15 mg/L	1.05 NTU	95.3 mV	38.70 ft	60.00 ml/min

## Samples

Sample ID:	Description:
YGWA-1I	Collect at 1521. 53F rain.

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

**Test Date / Time:** 2/11/2020 10:53:54 AM

**Project:** Plant Yates - AP 2

**Operator Name:** Anna Schnittker

<b>Location Name:</b> YGWA-2I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 55.7 ft <b>Total Depth:</b> 65.74 ft <b>Initial Depth to Water:</b> 45.31 ft	<b>Pump Type:</b> QED Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 60 ft <b>Estimated Total Volume Pumped:</b> <b>3.5 liter</b> <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 50 ml/min <b>Final Draw Down:</b> 9.6 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 714302
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**Test Notes:**

Sample time: 1210. Rainy 50s

**Weather Conditions:**

Rainy 50s

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/11/2020 10:53 AM	00:00	7.81 pH	19.05 °C	195.72 µS/cm	9.11 mg/L		184.6 mV	46.10 ft	50.00 ml/min
2/11/2020 10:58 AM	05:00	7.60 pH	17.40 °C	177.47 µS/cm	9.60 mg/L	1.80 NTU	104.5 mV	46.10 ft	50.00 ml/min
2/11/2020 11:03 AM	10:00	7.43 pH	17.67 °C	198.05 µS/cm	4.93 mg/L	1.60 NTU	-33.9 mV	46.10 ft	50.00 ml/min
2/11/2020 11:08 AM	15:00	7.45 pH	18.01 °C	195.98 µS/cm	4.98 mg/L	1.50 NTU	-45.4 mV	46.10 ft	50.00 ml/min
2/11/2020 11:13 AM	20:00	7.44 pH	18.16 °C	196.66 µS/cm	5.37 mg/L	1.20 NTU	-52.9 mV	46.10 ft	50.00 ml/min
2/11/2020 11:18 AM	25:00	7.44 pH	18.21 °C	192.62 µS/cm	6.51 mg/L	1.50 NTU	-71.2 mV	46.10 ft	50.00 ml/min
2/11/2020 11:23 AM	30:00	7.45 pH	18.25 °C	191.63 µS/cm	6.59 mg/L	0.60 NTU	-79.7 mV	46.10 ft	50.00 ml/min
2/11/2020 11:28 AM	35:00	7.44 pH	18.38 °C	188.88 µS/cm	4.09 mg/L	1.40 NTU	-50.5 mV	46.10 ft	50.00 ml/min
2/11/2020 11:33 AM	40:00	7.43 pH	18.43 °C	183.50 µS/cm	7.51 mg/L	2.10 NTU	-48.9 mV	46.10 ft	50.00 ml/min
2/11/2020 11:38 AM	45:00	7.44 pH	18.12 °C	192.67 µS/cm	2.20 mg/L	2.80 NTU	-53.6 mV	46.10 ft	50.00 ml/min
2/11/2020 11:43 AM	50:00	7.43 pH	17.94 °C	184.36 µS/cm	3.12 mg/L	3.60 NTU	-41.4 mV	46.10 ft	50.00 ml/min
2/11/2020 11:48 AM	55:00	7.42 pH	17.90 °C	186.05 µS/cm	4.05 mg/L	2.00 NTU	-40.8 mV	46.10 ft	50.00 ml/min
2/11/2020 11:53 AM	01:00:00	7.41 pH	17.88 °C	188.05 µS/cm	4.22 mg/L	3.00 NTU	-41.7 mV	46.10 ft	50.00 ml/min

2/11/2020 11:58 AM	01:05:00	7.40 pH	17.79 °C	187.89 µS/cm	5.88 mg/L	1.90 NTU	-36.9 mV	46.10 ft	50.00 ml/min
2/11/2020 12:03 PM	01:10:00	7.40 pH	17.90 °C	192.07 µS/cm	5.65 mg/L	1.30 NTU	-32.1 mV	46.10 ft	50.00 ml/min
2/11/2020 12:07 PM	01:13:22	7.38 pH	18.03 °C	187.76 µS/cm	5.80 mg/L	1.30 NTU	-49.7 mV	46.10 ft	50.00 ml/min

## Samples

Sample ID:	Description:

Created using VuSitu from In-Situ, Inc.

# Low-Flow Test Report:

Test Date / Time: 2/12/2020 10:04:54 AM

Project: Plant Yates - AP2

Operator Name: Anna Schnittker

Location Name: YGWA-3D Well Diameter: 2 in Casing Type: PVC Screen Length: 50 ft Top of Screen: 87.1 ft Total Depth: 137.1 ft Initial Depth to Water: 30.25 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 115 ft Estimated Total Volume Pumped: 4.5 liter Flow Cell Volume: 90 ml Final Flow Rate: 150 ml/min Final Draw Down: 2 in	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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## Test Notes:

Sample time: 1040. Cloudy 50s

## Weather Conditions:

Cloudy 50s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/12/2020 10:04 AM	00:00	6.78 pH	15.25 °C	198.88 µS/cm	2.67 mg/L		-9.4 mV	30.40 ft	150.00 ml/min
2/12/2020 10:06 AM	01:30	6.93 pH	15.57 °C	192.81 µS/cm	1.22 mg/L	2.10 NTU	-53.4 mV	30.40 ft	150.00 ml/min
2/12/2020 10:11 AM	06:30	7.44 pH	15.82 °C	193.41 µS/cm	0.30 mg/L	2.40 NTU	-70.0 mV	30.40 ft	150.00 ml/min
2/12/2020 10:16 AM	11:30	7.66 pH	15.84 °C	193.22 µS/cm	0.21 mg/L	1.90 NTU	-114.2 mV	30.40 ft	150.00 ml/min
2/12/2020 10:21 AM	16:30	7.73 pH	15.90 °C	193.36 µS/cm	0.19 mg/L	1.20 NTU	-81.9 mV	30.40 ft	150.00 ml/min
2/12/2020 10:26 AM	21:30	7.77 pH	15.93 °C	192.15 µS/cm	0.18 mg/L	0.80 NTU	-83.7 mV	30.40 ft	150.00 ml/min
2/12/2020 10:31 AM	26:30	7.80 pH	16.10 °C	192.74 µS/cm	0.16 mg/L	0.60 NTU	-88.7 mV	30.40 ft	150.00 ml/min
2/12/2020 10:36 AM	31:30	7.83 pH	16.15 °C	192.63 µS/cm	0.17 mg/L	0.50 NTU	-126.9 mV	30.40 ft	150.00 ml/min

## Samples

Sample ID:	Description:

# Low-Flow Test Report:

**Test Date / Time:** 2/11/2020 1:24:14 PM

**Project:** Plant Yates - AP 2

**Operator Name:** Anna Schnittker

<b>Location Name:</b> YGWA-3I <b>Well Diameter:</b> 2 in <b>Casing Type:</b> PVC <b>Screen Length:</b> 10 ft <b>Top of Screen:</b> 50 ft <b>Total Depth:</b> 60 ft <b>Initial Depth to Water:</b> 52.22 ft	<b>Pump Type:</b> QED Bladder Pump <b>Tubing Type:</b> Poly <b>Pump Intake From TOC:</b> 55 ft <b>Estimated Total Volume Pumped:</b> 14 liter <b>Flow Cell Volume:</b> 90 ml <b>Final Flow Rate:</b> 90 ml/min <b>Final Draw Down:</b> 4 in	<b>Instrument Used:</b> Aqua TROLL 400 <b>Serial Number:</b> 714302
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**Test Notes:**

Sample time: 16:05. Cloudy 60s

**Weather Conditions:**

Rainy 60s

**Low-Flow Readings:**

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/11/2020 1:24 PM	00:00	7.67 pH	17.63 °C	203.83 µS/cm	9.57 mg/L		36.8 mV	52.60 ft	90.00 ml/min
2/11/2020 1:29 PM	05:00	7.60 pH	17.46 °C	224.31 µS/cm	8.57 mg/L	8.80 NTU	20.7 mV	52.60 ft	90.00 ml/min
2/11/2020 1:34 PM	10:00	7.56 pH	17.37 °C	237.40 µS/cm	7.00 mg/L	11.60 NTU	-32.8 mV	52.60 ft	90.00 ml/min
2/11/2020 1:39 PM	15:00	7.58 pH	17.26 °C	234.57 µS/cm	5.48 mg/L	6.20 NTU	-58.6 mV	52.60 ft	90.00 ml/min
2/11/2020 1:44 PM	20:00	7.61 pH	17.22 °C	226.05 µS/cm	1.27 mg/L	6.00 NTU	-38.9 mV	52.60 ft	90.00 ml/min
2/11/2020 1:49 PM	25:00	7.64 pH	17.36 °C	217.08 µS/cm	1.65 mg/L	4.30 NTU	-46.4 mV	52.60 ft	90.00 ml/min
2/11/2020 1:54 PM	30:00	7.67 pH	17.32 °C	209.64 µS/cm	1.34 mg/L	4.10 NTU	-51.0 mV	52.60 ft	90.00 ml/min
2/11/2020 1:59 PM	35:00	7.68 pH	17.33 °C	203.97 µS/cm	1.26 mg/L	4.20 NTU	-55.4 mV	52.60 ft	90.00 ml/min
2/11/2020 2:04 PM	40:00	7.69 pH	17.35 °C	200.54 µS/cm	3.93 mg/L	3.80 NTU	-57.7 mV	52.60 ft	90.00 ml/min
2/11/2020 2:09 PM	45:00	7.70 pH	17.27 °C	197.03 µS/cm	1.37 mg/L	3.70 NTU	-60.6 mV	52.60 ft	90.00 ml/min
2/11/2020 2:14 PM	50:00	7.70 pH	17.27 °C	194.23 µS/cm	1.54 mg/L	1.00 NTU	-62.3 mV	52.60 ft	90.00 ml/min
2/11/2020 2:19 PM	55:00	7.70 pH	17.27 °C	191.33 µS/cm	1.57 mg/L	1.60 NTU	-63.8 mV	52.60 ft	90.00 ml/min
2/11/2020 2:24 PM	01:00:00	7.70 pH	17.18 °C	189.29 µS/cm	3.56 mg/L	1.40 NTU	-65.6 mV	52.60 ft	90.00 ml/min

2/11/2020 2:29 PM	01:05:00	7.70 pH	17.32 °C	187.66 µS/cm	3.81 mg/L	1.20 NTU	-67.6 mV	52.60 ft	90.00 ml/min
2/11/2020 2:34 PM	01:10:00	7.70 pH	17.44 °C	186.51 µS/cm	2.42 mg/L	0.80 NTU	-69.2 mV	52.60 ft	90.00 ml/min
2/11/2020 2:39 PM	01:15:00	7.71 pH	17.30 °C	188.28 µS/cm	1.05 mg/L	0.90 NTU	-67.8 mV	52.60 ft	90.00 ml/min
2/11/2020 2:44 PM	01:20:00	7.70 pH	17.22 °C	187.57 µS/cm	1.31 mg/L	0.70 NTU	-61.4 mV	52.60 ft	90.00 ml/min
2/11/2020 2:49 PM	01:25:00	7.70 pH	16.82 °C	188.09 µS/cm	0.66 mg/L	0.90 NTU	-69.5 mV	52.60 ft	90.00 ml/min
2/11/2020 2:54 PM	01:30:00	7.65 pH	16.79 °C	207.83 µS/cm	1.00 mg/L	0.80 NTU	-84.3 mV	52.60 ft	90.00 ml/min
2/11/2020 2:59 PM	01:35:00	7.63 pH	16.83 °C	210.86 µS/cm	1.31 mg/L	1.00 NTU	-80.3 mV	52.60 ft	90.00 ml/min
2/11/2020 3:04 PM	01:40:00	7.63 pH	17.36 °C	208.55 µS/cm	1.31 mg/L	1.40 NTU	-81.1 mV	52.60 ft	90.00 ml/min
2/11/2020 3:09 PM	01:45:00	7.65 pH	17.13 °C	197.76 µS/cm	1.10 mg/L	1.20 NTU	-87.6 mV	52.60 ft	90.00 ml/min
2/11/2020 3:14 PM	01:50:00	7.68 pH	17.09 °C	184.95 µS/cm	0.82 mg/L	1.10 NTU	-99.0 mV	52.60 ft	90.00 ml/min
2/11/2020 3:19 PM	01:55:00	7.69 pH	17.10 °C	180.99 µS/cm	0.67 mg/L	1.00 NTU	-104.2 mV	52.60 ft	90.00 ml/min
2/11/2020 3:24 PM	02:00:00	7.69 pH	17.21 °C	179.26 µS/cm	0.61 mg/L	0.80 NTU	-74.7 mV	52.60 ft	90.00 ml/min
2/11/2020 3:29 PM	02:05:00	7.69 pH	17.18 °C	178.71 µS/cm	0.57 mg/L	0.60 NTU	-107.1 mV	52.60 ft	90.00 ml/min
2/11/2020 3:34 PM	02:10:00	7.69 pH	17.20 °C	179.48 µS/cm	0.56 mg/L	0.90 NTU	-107.3 mV	52.60 ft	90.00 ml/min
2/11/2020 3:39 PM	02:15:00	7.69 pH	17.09 °C	179.58 µS/cm	0.55 mg/L	1.20 NTU	-75.1 mV	52.60 ft	90.00 ml/min
2/11/2020 3:44 PM	02:20:00	7.69 pH	17.09 °C	179.15 µS/cm	0.54 mg/L	0.90 NTU	-75.3 mV	52.60 ft	90.00 ml/min
2/11/2020 3:49 PM	02:25:00	7.68 pH	17.09 °C	178.47 µS/cm	0.52 mg/L	0.60 NTU	-106.6 mV	52.60 ft	90.00 ml/min
2/11/2020 3:54 PM	02:30:00	7.69 pH	17.09 °C	178.04 µS/cm	0.49 mg/L	0.60 NTU	-107.3 mV	52.60 ft	90.00 ml/min
2/11/2020 3:59 PM	02:35:00	7.69 pH	17.09 °C	177.70 µS/cm	0.48 mg/L	0.50 NTU	-107.4 mV	52.60 ft	90.00 ml/min

## Samples

Sample ID:	Description:

# Low-Flow Test Report:

Test Date / Time: 2/12/2020 12:56:02 PM

Project: Plant Yates - Ash pond 2

Operator Name: Anna Schnittker

Location Name: YGWA-14S  Well Diameter: 2 in  Casing Type: PVC  Screen Length: 10 ft  Top of Screen: 25.8 ft  Total Depth: 35.82 ft  Initial Depth to Water: 15.61 ft	Pump Type: QED Bladder Pump  Tubing Type: Poly  Pump Intake From TOC: 30.8 ft  Estimated Total Volume Pumped: 6.6 L  Flow Cell Volume: 90 ml  Final Flow Rate: 220 ml/min  Final Draw Down: 6 in	Instrument Used: Aqua TROLL 400  Serial Number: 714302
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## Test Notes:

Sample time: 1330. Cloudy 60s. DUP 1 here.

## Weather Conditions:

Cloudy 60s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/12/2020 12:56 PM	00:00	5.59 pH	19.45 °C	51.52 µS/cm	6.57 mg/L		145.9 mV	16.10 ft	220.00 ml/min
2/12/2020 1:01 PM	05:00	5.52 pH	18.43 °C	53.76 µS/cm	6.30 mg/L	0.50 NTU	223.3 mV	16.10 ft	220.00 ml/min
2/12/2020 1:06 PM	10:00	5.50 pH	18.43 °C	53.49 µS/cm	6.20 mg/L	0.50 NTU	148.6 mV	16.10 ft	220.00 ml/min
2/12/2020 1:11 PM	15:00	5.49 pH	18.43 °C	53.85 µS/cm	5.97 mg/L	0.50 NTU	144.9 mV	16.10 ft	220.00 ml/min
2/12/2020 1:16 PM	20:00	5.48 pH	18.38 °C	54.15 µS/cm	5.87 mg/L	0.50 NTU	141.2 mV	16.10 ft	220.00 ml/min
2/12/2020 1:21 PM	25:00	5.47 pH	18.34 °C	54.50 µS/cm	5.73 mg/L	0.50 NTU	135.5 mV	16.10 ft	220.00 ml/min
2/12/2020 1:26 PM	30:00	5.48 pH	18.25 °C	54.75 µS/cm	5.67 mg/L	0.30 NTU	208.8 mV	16.10 ft	220.00 ml/min

## Samples

Sample ID:	Description:

# Low-Flow Test Report:

Test Date / Time: 2/12/2020 2:21:10 PM

Project: Plant Yates - AP 2

Operator Name: Anna Schnittker

Location Name: YGWA-30I Well Diameter: 2 in Casing Type: PVC Screen Length: 10 ft Top of Screen: 49.6 ft Total Depth: 59.65 ft Initial Depth to Water: 39.41 ft	Pump Type: QED Bladder Pump Tubing Type: Poly Pump Intake From TOC: 54.6 ft Estimated Total Volume Pumped: 4.8 liter Flow Cell Volume: 90 ml Final Flow Rate: 160 ml/min Final Draw Down: 12 in	Instrument Used: Aqua TROLL 400 Serial Number: 714302
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## Test Notes:

Sample time: 1455

## Weather Conditions:

Cloudy 60s

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 100	+/- 5 %	+/- 10 %	+/- 100	+/- 100	+/- 0.3	
2/12/2020 2:21 PM	00:00	6.36 pH	22.12 °C	27.41 µS/cm	8.68 mg/L		113.7 mV	40.40 ft	160.00 ml/min
2/12/2020 2:26 PM	05:00	6.07 pH	18.29 °C	32.38 µS/cm	7.65 mg/L	0.70 NTU	107.1 mV	40.40 ft	160.00 ml/min
2/12/2020 2:31 PM	10:00	5.85 pH	18.30 °C	35.15 µS/cm	7.46 mg/L	0.60 NTU	115.0 mV	40.40 ft	160.00 ml/min
2/12/2020 2:36 PM	15:00	5.83 pH	18.26 °C	35.21 µS/cm	7.33 mg/L	0.70 NTU	112.7 mV	40.40 ft	160.00 ml/min
2/12/2020 2:41 PM	20:00	5.81 pH	18.25 °C	35.26 µS/cm	7.26 mg/L	0.60 NTU	111.3 mV	40.40 ft	160.00 ml/min
2/12/2020 2:46 PM	25:00	5.81 pH	18.34 °C	35.29 µS/cm	7.16 mg/L	0.60 NTU	110.6 mV	40.40 ft	160.00 ml/min
2/12/2020 2:51 PM	30:00	5.80 pH	18.34 °C	35.33 µS/cm	7.11 mg/L	0.60 NTU	110.0 mV	40.40 ft	160.00 ml/min

## Samples

Sample ID:	Description:

Product Name: Low-Flow System

Date: 2020-03-18 15:48:05

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Plant Yates - Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 54 ft  
  
Pump placement from TOC 49 ft

Well Information:

Well ID YGWA-1I  
Well diameter 2 in  
Well Total Depth 54.93 ft  
Screen Length 10 ft  
Depth to Water 34.05 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 0.9112475 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 17 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	15:27:20	5700.04	18.98	6.23	60.55	2.42	35.50	3.69	71.10
Last 5	15:32:20	6000.04	18.96	6.22	60.38	2.37	35.50	3.84	72.89
Last 5	15:37:20	6300.04	19.21	6.21	60.45	2.40	35.50	3.98	73.62
Last 5	15:42:20	6600.04	19.54	6.20	60.10	2.54	35.50	4.07	74.90
Last 5	15:47:20	6900.04	19.59	6.19	59.89	2.34	35.50	4.17	76.00
Variance 0		0.25	-0.01		0.07			0.14	0.73
Variance 1		0.33	-0.01		-0.35			0.09	1.28
Variance 2		0.05	-0.01		-0.21			0.09	1.10

Notes

Sampled at 15:37. Sunny, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-19 10:34:42

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Plant Yates - Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 108 ft  
  
Pump placement from TOC 103 ft

Well Information:

Well ID YGWA-1D  
Well diameter 2 in  
Well Total Depth 128.60 ft  
Screen Length 10 ft  
Depth to Water 45.54 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 1.432495 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 in  
Total Volume Pumped 7.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	10:13:47	3600.03	16.06	7.05	166.86	6.32	45.70	0.35	-8.28
Last 5	10:18:47	3900.04	16.06	7.05	166.49	6.10	45.70	0.36	-7.42
Last 5	10:23:47	4200.04	16.19	7.04	166.01	5.69	45.70	0.36	-7.95
Last 5	10:28:47	4500.04	16.29	7.04	165.52	5.40	45.70	0.37	-9.80
Last 5	10:33:47	4800.04	16.47	7.03	165.44	4.93	45.70	0.39	-11.39
Variance 0		0.13	-0.01		-0.48			-0.00	-0.53
Variance 1		0.10	-0.01		-0.49			0.02	-1.85
Variance 2		0.18	-0.00		-0.08			0.01	-1.59

Notes

Sampled at 10:33. Sunny, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-19 12:28:00

## Project Information:

Operator Name Ryan Walker  
 Company Name Atlantic Coast Consulting  
 Project Name Plant Yates  
 Site Name Plant Yates - Pond 2  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 465016  
 Turbidity Make/Model Hach 2100Q

## Pump Information:

Pump Model/Type QED Bladder  
 Tubing Type poly  
 Tubing Diameter .25 in  
 Tubing Length 65 ft  
 Pump placement from TOC 60 ft

## Well Information:

Well ID YGWA-2I  
 Well diameter 2 in  
 Well Total Depth 65.74 ft  
 Screen Length 10 ft  
 Depth to Water 42.83 ft

## Pumping Information:

Final Pumping Rate 50 mL/min  
 Total System Volume 1.017428 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 42 in  
 Total Volume Pumped 3.25 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	12:06:59	2100.03	19.70	7.14	233.61	2.88	45.80	0.68	-5.22
Last 5	12:11:59	2400.03	19.41	7.17	232.90	2.36	46.00	0.66	14.94
Last 5	12:16:59	2700.04	19.91	7.19	233.39	2.26	46.10	0.64	30.83
Last 5	12:21:59	3000.04	20.15	7.20	232.30	2.38	46.20	0.63	53.26
Last 5	12:26:59	3300.04	20.20	7.22	231.63	2.75	46.30	0.58	85.92
Variance 0		0.50	0.02		0.50			-0.02	15.89
Variance 1		0.24	0.01		-1.09			-0.01	22.43
Variance 2		0.05	0.02		-0.67			-0.05	32.66

## Notes

Sampled at 12:37. Sunny, 70's.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-19 11:03:24

## Project Information:

Operator Name Hunter Auld  
 Company Name ACC  
 Project Name Plant Yates - AP 2  
 Site Name Plant Yates  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 512733  
 Turbidity Make/Model HACH 2100Q

## Pump Information:

Pump Model/Type QED Bladder Pump  
 Tubing Type poly  
 Tubing Diameter .17 in  
 Tubing Length 60 ft  
 Pump placement from TOC 55 ft

## Well Information:

Well ID YGWA-3I  
 Well diameter 2 in  
 Well Total Depth 60 ft  
 Screen Length 10 ft  
 Depth to Water 52.2 ft

## Pumping Information:

Final Pumping Rate 150 mL/min  
 Total System Volume 0.6578054 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 9.6 in  
 Total Volume Pumped 14.2 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	10:39:29	2400.03	17.06	7.29	204.10	0.60	53.00	0.57	75.60
Last 5	10:44:29	2700.03	16.96	7.30	203.67	0.60	53.00	0.52	72.98
Last 5	10:49:29	3000.03	16.93	7.30	200.56	0.80	53.00	0.45	70.05
Last 5	10:54:29	3300.03	16.92	7.31	199.19	0.60	53.00	0.43	67.24
Last 5	10:59:29	3600.03	17.04	7.31	197.33	--	--	0.40	64.81
Variance 0		-0.03	0.01		-3.11			-0.08	-2.93
Variance 1		-0.02	0.00		-1.37			-0.02	-2.81
Variance 2		0.13	0.00		-1.85			-0.02	-2.44

## Notes

Sampled at 1100 on 3-19-20. Sunny, 70s.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-19 12:10:44

## Project Information:

Operator Name Hunter Auld  
 Company Name ACC  
 Project Name Plant Yates - AP 2  
 Site Name Plant Yates  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 512733  
 Turbidity Make/Model HACH 2100Q

## Pump Information:

Pump Model/Type QED Bladder Pump  
 Tubing Type poly  
 Tubing Diameter .17 in  
 Tubing Length 116 ft

Pump placement from TOC 112.1 ft

## Well Information:

Well ID YGWA-3D  
 Well diameter 2 in  
 Well Total Depth 137.1 ft  
 Screen Length 50 ft  
 Depth to Water 28.9 ft

## Pumping Information:

Final Pumping Rate 150 mL/min  
 Total System Volume 0.9077571 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 1.2 in  
 Total Volume Pumped 6.8 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	11:44:58	900.03	17.23	7.49	229.99	10.50	29.00	0.35	48.14
Last 5	11:49:58	1200.03	17.22	7.57	230.39	9.40	29.00	0.19	46.17
Last 5	11:54:58	1500.03	17.25	7.61	230.72	5.90	29.00	0.16	44.50
Last 5	11:59:58	1800.03	17.25	7.64	230.66	5.50	29.00	0.16	42.77
Last 5	12:04:58	2100.03	17.54	7.65	230.73	4.70	29.00	0.17	40.55
Variance 0		0.03	0.04		0.33			-0.03	-1.67
Variance 1		-0.01	0.02		-0.06			-0.00	-1.73
Variance 2		0.30	0.01		0.07			0.01	-2.22

## Notes

Sampled at 1210 on 3-19-20. Sunny, 70s.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-18 15:48:29

Project Information:

Operator Name Hunter Auld  
 Company Name ACC  
 Project Name Plant Yates - AP 2  
 Site Name Plant Yates  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 512733  
 Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump  
 Tubing Type poly  
 Tubing Diameter .17 in  
 Tubing Length 35 ft

Pump placement from TOC 30 ft

Well Information:

Well ID YGWA-14S  
 Well diameter 2 in  
 Well Total Depth 35.82 ft  
 Screen Length 10 ft  
 Depth to Water 12.69 ft

Pumping Information:

Final Pumping Rate 220 mL/min  
 Total System Volume 0.5462198 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 4.9 in  
 Total Volume Pumped 7.7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	15:25:23	300.04	18.52	5.42	62.46	1.60	13.00	7.00	138.68
Last 5	15:30:23	600.03	18.52	5.40	62.25	1.00	13.00	6.90	140.57
Last 5	15:35:23	900.03	18.13	5.39	62.35	1.20	13.10	6.77	143.02
Last 5	15:40:23	1200.03	18.93	5.38	62.18	1.00	13.10	6.71	144.79
Last 5	15:45:23	1500.03	19.64	5.38	62.26	1.00	13.10	6.66	147.12
Variance 0		-0.40	-0.01		0.10			-0.13	2.44
Variance 1		0.80	-0.00		-0.17			-0.07	1.77
Variance 2		0.71	-0.00		0.08			-0.05	2.33

Notes

Sampled at 1550 on 3-18-20. Dup-1 here. Sunny, 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-19 14:21:40

## Project Information:

Operator Name: Ryan Walker  
 Company Name: Atlantic Coast Consulting  
 Project Name: Plant Yates  
 Site Name: Plant Yates - Pond 2  
 Latitude: 0° 0' 0"  
 Longitude: 0° 0' 0"  
 Sonde SN: 465016  
 Turbidity Make/Model: Hach 2100Q

## Pump Information:

Pump Model/Type: QED Bladder  
 Tubing Type: poly  
 Tubing Diameter: .25 in  
 Tubing Length: 59 ft  
 Pump placement from TOC: 55 ft

## Well Information:

Well ID: YGWA-30I  
 Well diameter: 2 in  
 Well Total Depth: 59.65 ft  
 Screen Length: 10 ft  
 Depth to Water: 38.09 ft

## Pumping Information:

Final Pumping Rate: 160 mL/min  
 Total System Volume: 0.9595111 L  
 Calculated Sample Rate: 300 sec  
 Stabilization Drawdown: 1 in  
 Total Volume Pumped: 5 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	14:01:00	2102.03	21.73	6.10	39.64	1.51	38.20	6.40	86.14
Last 5	14:06:00	2402.03	21.32	6.07	39.63	1.65	38.20	6.38	87.81
Last 5	14:11:00	2702.03	21.43	6.03	39.84	1.31	38.20	6.32	89.26
Last 5	14:16:00	3002.04	20.88	6.02	39.74	1.42	38.20	6.31	91.04
Last 5	14:21:00	3302.04	20.39	6.00	39.72	1.08	38.20	6.26	93.39
Variance 0			0.10	-0.03	0.21			-0.06	1.45
Variance 1			-0.55	-0.01	-0.11			-0.01	1.78
Variance 2			-0.49	-0.02	-0.02			-0.06	2.35

## Notes

Sampled at 14:20. Sunny, 70's.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-19 16:48:17

## Project Information:

Operator Name: Ryan Walker  
 Company Name: Atlantic Coast Consulting  
 Project Name: Plant Yates  
 Site Name: Plant Yates - Pond 2  
 Latitude: 0° 0' 0"  
 Longitude: 0° 0' 0"  
 Sonde SN: 465016  
 Turbidity Make/Model: Hach 2100Q

## Pump Information:

Pump Model/Type: QED Bladder  
 Tubing Type: poly  
 Tubing Diameter: .25 in  
 Tubing Length: 40 ft  
 Pump placement from TOC: 35 ft

## Well Information:

Well ID: YGWC-26S  
 Well diameter: 2 in  
 Well Total Depth: 40.26 ft  
 Screen Length: 10 ft  
 Depth to Water: 20.22 ft

## Pumping Information:

Final Pumping Rate: 160 mL/min  
 Total System Volume: 0.7761093 L  
 Calculated Sample Rate: 300 sec  
 Stabilization Drawdown: 11 in  
 Total Volume Pumped: 8 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	16:27:32	4500.04	22.99	5.47	287.42	6.62	21.10	0.62	108.53
Last 5	16:32:32	4800.04	22.69	5.46	286.84	5.71	21.10	0.65	106.15
Last 5	16:37:32	5100.04	22.42	5.47	286.22	5.23	21.10	0.63	104.67
Last 5	16:42:32	5400.04	22.62	5.46	287.43	5.17	21.10	0.66	104.63
Last 5	16:47:32	5700.04	22.71	5.46	286.64	4.93	21.10	0.63	104.34
Variance 0		-0.27	0.00	-0.62				-0.02	-1.48
Variance 1		0.20	-0.00	1.20				0.03	-0.04
Variance 2		0.09	-0.00	-0.79				-0.03	-0.28

## Notes

Sampled at 16:47. Sunny 70's.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-20 10:47:55

## Project Information:

Operator Name Ryan Walker  
 Company Name Atlantic Coast Consulting  
 Project Name Plant Yates  
 Site Name Plant Yates - Pond 2  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 465016  
 Turbidity Make/Model Hach 2100Q

## Pump Information:

Pump Model/Type QED Bladder  
 Tubing Type poly  
 Tubing Diameter .25 in  
 Tubing Length 69 ft  
 Pump placement from TOC 64 ft

## Well Information:

Well ID YGWC-26I  
 Well diameter 2 in  
 Well Total Depth 69.71 ft  
 Screen Length 10 ft  
 Depth to Water 22.21 ft

## Pumping Information:

Final Pumping Rate 120 mL/min  
 Total System Volume 1.056039 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 2 in  
 Total Volume Pumped 13 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	10:27:11	5100.04	18.96	5.95	330.08	5.13	22.40	0.31	78.67
Last 5	10:32:11	5400.04	19.05	5.95	329.94	5.02	22.40	0.31	78.73
Last 5	10:37:11	5700.04	19.18	5.95	329.69	5.06	22.40	0.30	78.88
Last 5	10:42:11	6000.04	19.18	5.95	329.66	5.11	22.40	0.30	79.31
Last 5	10:47:11	6300.04	19.23	5.94	329.48	4.81	22.40	0.30	78.95
Variance 0		0.12	-0.00		-0.24			-0.00	0.16
Variance 1		0.00	-0.00		-0.04			0.00	0.42
Variance 2		0.05	-0.00		-0.18			-0.01	-0.36

## Notes

Sampled at 10:47. Cloudy, 60's.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-20 12:02:56

## Project Information:

Operator Name Hunter Auld  
 Company Name ACC  
 Project Name Plant Yates - AP 2  
 Site Name Plant Yates  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 512733  
 Turbidity Make/Model HACH 2100Q

## Pump Information:

Pump Model/Type QED Bladder Pump  
 Tubing Type poly  
 Tubing Diameter .17 in  
 Tubing Length 40 ft

Pump placement from TOC 35.2 ft

## Well Information:

Well ID YGWC-27S  
 Well diameter 2 in  
 Well Total Depth 40.26 ft  
 Screen Length 10 ft  
 Depth to Water 24.24 ft

## Pumping Information:

Final Pumping Rate 250 mL/min  
 Total System Volume 0.5685369 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 1 in  
 Total Volume Pumped 17.5 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	11:34:20	2700.03	19.06	6.19	408.98	8.50	24.30	0.12	81.13
Last 5	11:39:20	3000.03	19.01	6.18	409.25	6.70	24.30	0.12	82.18
Last 5	11:44:20	3300.03	18.97	6.18	409.35	5.70	24.30	0.12	82.91
Last 5	11:49:20	3600.03	18.96	6.18	409.61	5.10	24.30	0.12	83.62
Last 5	11:54:20	3900.06	18.99	6.18	410.22	4.85	24.30	0.12	84.19
Variance 0		-0.04	-0.00		0.09			-0.00	0.74
Variance 1		-0.01	0.00		0.27			0.00	0.71
Variance 2		0.03	-0.00		0.61			0.00	0.57

## Notes

Sampled at 1200 on 3-20-20. Sunny, 70s.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-20 12:06:02

## Project Information:

Operator Name: Ryan Walker  
 Company Name: Atlantic Coast Consulting  
 Project Name: Plant Yates  
 Site Name: Plant Yates - Pond 2  
 Latitude: 0° 0' 0"  
 Longitude: 0° 0' 0"  
 Sonde SN: 465016  
 Turbidity Make/Model: Hach 2100Q

## Pump Information:

Pump Model/Type: QED Bladder  
 Tubing Type: poly  
 Tubing Diameter: .25 in  
 Tubing Length: 79 ft  
 Pump placement from TOC: 74 ft

## Well Information:

Well ID: YGWC-27I  
 Well diameter: 2 in  
 Well Total Depth: 79.84 ft  
 Screen Length: 10 ft  
 Depth to Water: 24.48 ft

## Pumping Information:

Final Pumping Rate: 160 mL/min  
 Total System Volume: 1.152566 L  
 Calculated Sample Rate: 300 sec  
 Stabilization Drawdown: 10 in  
 Total Volume Pumped: 5 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 0.3	+/- 25
Last 5	11:45:18	600.03	19.59	6.25	357.29	12.40	25.30	0.65	43.27
Last 5	11:50:18	900.03	19.72	6.28	355.84	7.94	25.30	0.36	40.61
Last 5	11:55:18	1200.03	20.43	6.29	352.38	3.95	25.30	0.28	38.96
Last 5	12:00:18	1500.03	19.64	6.30	352.46	2.49	25.30	0.28	40.84
Last 5	12:05:19	1801.03	19.67	6.32	350.09	2.31	25.30	0.27	42.95
Variance 0			0.71	0.01	-3.46			-0.09	-1.66
Variance 1			-0.79	0.01	0.08			-0.00	1.89
Variance 2			0.03	0.02	-2.37			-0.01	2.11

## Notes

Sampled at 12:05. Cloudy, 70's.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-19 14:57:15

## Project Information:

Operator Name Hunter Auld  
 Company Name ACC  
 Project Name Plant Yates - AP 2  
 Site Name Plant Yates  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 512733  
 Turbidity Make/Model HACH 2100Q

## Pump Information:

Pump Model/Type QED Bladder Pump  
 Tubing Type poly  
 Tubing Diameter .17 in  
 Tubing Length 45 ft

Pump placement from TOC 39.8 ft

## Well Information:

Well ID YGWC-28S  
 Well diameter 2 in  
 Well Total Depth 44.85 ft  
 Screen Length 10 ft  
 Depth to Water 22.26 ft

## Pumping Information:

Final Pumping Rate 220 mL/min  
 Total System Volume 0.590854 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 5.2 in  
 Total Volume Pumped 24.2 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	14:33:34	5100.03	19.84	6.97	434.56	6.50	22.70	0.08	-49.56
Last 5	14:38:34	5400.03	19.81	6.97	434.78	5.20	22.70	0.08	-51.06
Last 5	14:43:34	5700.03	19.59	6.98	434.53	5.10	22.70	0.08	-52.68
Last 5	14:48:34	6000.03	19.65	6.98	433.64	5.20	22.70	0.08	-54.34
Last 5	14:53:34	6300.03	19.77	6.98	433.17	4.50	22.70	0.08	-56.10
Variance 0		-0.23	0.01	-0.24				0.00	-1.62
Variance 1		0.07	0.00	-0.90				0.00	-1.66
Variance 2		0.12	0.00	-0.47				-0.00	-1.76

## Notes

Sampled at 1455 on 3-19-20. Sunny, 70s. EB-1-3-19-20 here at 1315.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-19 15:59:43

## Project Information:

Operator Name Hunter Auld  
 Company Name ACC  
 Project Name Plant Yates - AP 2  
 Site Name Plant Yates  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 512733  
 Turbidity Make/Model HACH 2100Q

## Pump Information:

Pump Model/Type QED Bladder Pump  
 Tubing Type poly  
 Tubing Diameter .17 in  
 Tubing Length 70 ft  
 Pump placement from TOC 64.8 ft

## Well Information:

Well ID YGWC-28I  
 Well diameter 2 in  
 Well Total Depth 69.89 ft  
 Screen Length 10 ft  
 Depth to Water 22.57 ft

## Pumping Information:

Final Pumping Rate 130 mL/min  
 Total System Volume 0.7024395 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 7.6 in  
 Total Volume Pumped 6.5 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	15:36:32	1500.03	22.54	7.02	373.25	0.80	23.10	1.30	8.29
Last 5	15:41:32	1800.03	23.16	7.01	372.90	1.30	23.20	0.98	9.31
Last 5	15:46:33	2100.03	22.83	7.00	375.79	0.90	23.20	0.84	10.47
Last 5	15:51:32	2400.03	22.91	7.01	376.42	1.10	23.20	0.76	11.66
Last 5	15:56:32	2700.03	22.66	7.01	377.55	1.10	23.20	0.79	13.11
Variance 0		-0.32	-0.01		2.89			-0.14	1.16
Variance 1		0.08	0.02		0.63			-0.07	1.19
Variance 2		-0.26	-0.00		1.13			0.03	1.45

## Notes

Sampled at 3-19-20. Sunny, 70s. FB-1-3-19-20 here at 1515.

## Grab Samples

Product Name: Low-Flow System

Date: 2020-03-20 10:11:49

## Project Information:

Operator Name Hunter Auld  
 Company Name ACC  
 Project Name Plant Yates - AP 2  
 Site Name Plant Yates  
 Latitude 0° 0' 0"  
 Longitude 0° 0' 0"  
 Sonde SN 512733  
 Turbidity Make/Model HACH 2100Q

## Pump Information:

Pump Model/Type QED Bladder Pump  
 Tubing Type poly  
 Tubing Diameter .17 in  
 Tubing Length 70 ft  
 Pump placement from TOC 64.9 ft

## Well Information:

Well ID YGWC-29I  
 Well diameter 2 in  
 Well Total Depth 69.89 ft  
 Screen Length 10 ft  
 Depth to Water 24.90 ft

## Pumping Information:

Final Pumping Rate 100 mL/min  
 Total System Volume 0.7024395 L  
 Calculated Sample Rate 300 sec  
 Stabilization Drawdown 12 in  
 Total Volume Pumped 4.2 L

## Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 100	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 100
Last 5	09:49:48	600.03	18.26	6.16	246.36	1.40	25.80	0.98	65.74
Last 5	09:54:48	900.03	18.32	6.16	246.59	1.30	25.80	0.65	65.08
Last 5	09:59:48	1200.03	18.41	6.17	246.19	1.30	25.90	0.50	64.05
Last 5	10:04:48	1500.03	18.39	6.17	246.44	1.20	25.90	0.43	63.63
Last 5	10:09:48	1800.02	18.43	6.17	246.38	1.00	25.90	0.39	63.60
Variance 0		0.09	0.01		-0.40			-0.15	-1.02
Variance 1		-0.02	0.00		0.25			-0.07	-0.42
Variance 2		0.04	-0.00		-0.06			-0.03	-0.04

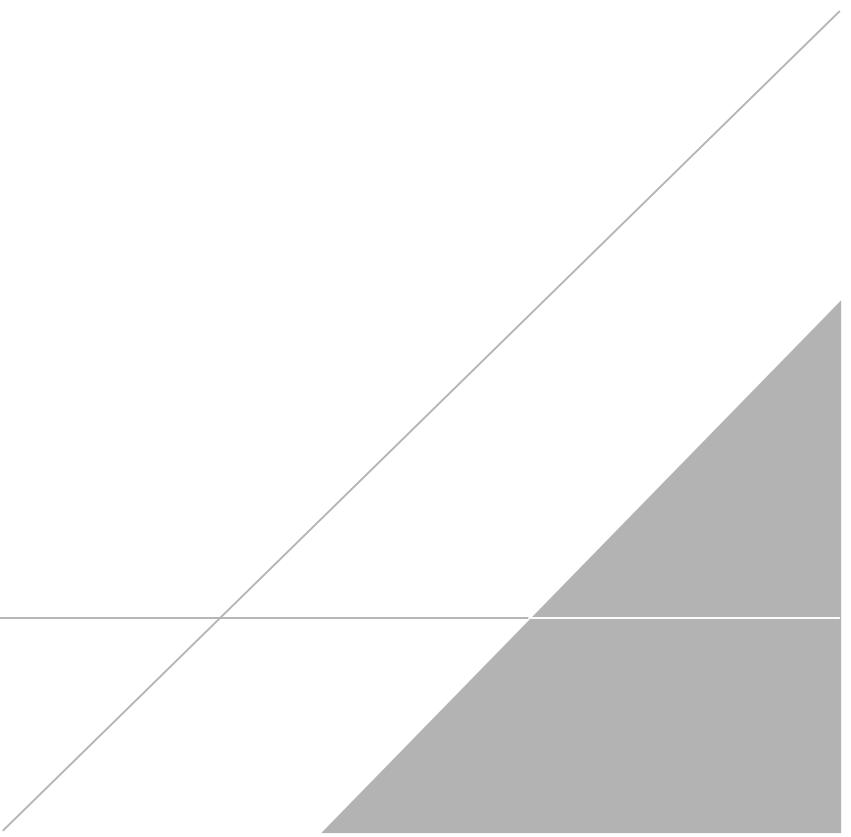
## Notes

Sampled at 1012 on 3-20-20. Cloudy, 70s.

## Grab Samples

## **APPENDIX B**

**Analytical Lab and Data Validation Reports (February and March 2020)**



# February 2020

Scan Event



February 28, 2020

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

RE: Project: PLANT YATES AP-2 - FEB EVENT  
Pace Project No.: 2628972

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 12, 2020 and February 14, 2020. 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: Monte Jones, ACC  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.  
Ryan Walker



#### REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT YATES AP-2 - FEB EVENT  
Pace Project No.: 2628972

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### 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 YATES AP-2 - FEB EVENT  
Pace Project No.: 2628972

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2628972001	YGWA-1I	Water	02/10/20 15:21	02/12/20 15:15
2628972002	YGWA-1D	Water	02/10/20 14:53	02/12/20 15:15
2628972003	YGWA-2I	Water	02/11/20 12:10	02/12/20 15:15
2628972004	YGWA-3I	Water	02/11/20 16:05	02/12/20 15:15
2628972005	YGWA-3D	Water	02/12/20 10:40	02/12/20 15:15
2628972006	YGWA-30I	Water	02/12/20 14:55	02/14/20 14:39
2628972007	YGWA-14S	Water	02/12/20 13:30	02/14/20 14:39
2628972008	YGWC-26S	Water	02/13/20 10:40	02/14/20 14:39
2628972009	YGWC-26I	Water	02/13/20 11:30	02/14/20 14:39
2628972010	DUP-1	Water	02/12/20 00:00	02/14/20 14:39
2628972011	DUP-2	Water	02/13/20 00:00	02/14/20 14:39
2628972012	EB-1-2-13-20	Water	02/13/20 11:00	02/14/20 14:39
2628972013	YGWC-29I	Water	02/13/20 13:02	02/14/20 14:39
2628972014	FB-1-2-13-20	Water	02/13/20 13:30	02/14/20 14:39
2628972015	FB-2-2-13-20	Water	02/13/20 13:40	02/14/20 14:39
2628972016	EB-2-2-13-20	Water	02/13/20 13:45	02/14/20 14:39
2628972017	YGWC-27S	Water	02/13/20 11:50	02/14/20 14:39
2628972018	YGWC-27I	Water	02/13/20 10:25	02/14/20 14:39
2628972019	YGWC-28S	Water	02/13/20 13:45	02/14/20 14:39
2628972020	YGWC-28I	Water	02/13/20 14:50	02/14/20 14:39

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: PLANT YATES AP-2 - FEB EVENT  
 Pace Project No.: 2628972

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2628972001	YGWA-1I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972002	YGWA-1D	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972003	YGWA-2I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972004	YGWA-3I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972005	YGWA-3D	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972006	YGWA-30I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972007	YGWA-14S	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972008	YGWC-26S	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972009	YGWC-26I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972010	DUP-1	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972011	DUP-2	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972012	EB-1-2-13-20	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972013	YGWC-29I	EPA 6020B	CSW	12	PASI-GA
		EPA 6020B	CSW	12	PASI-GA

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: PLANT YATES AP-2 - FEB EVENT  
Pace Project No.: 2628972

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2628972014	FB-1-2-13-20	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
	FB-2-2-13-20	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
2628972015	EB-2-2-13-20	EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
	YGWC-27S	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
2628972017	YGWC-27I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
	YGWC-28S	EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
2628972018	YGWC-28I	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
	YGWC-28I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	DRB	1	PASI-GA
2628972020	YGWC-28I	EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CSW	12	PASI-GA
	YGWC-28I	EPA 7470A	DRB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>2628972001</b>	<b>YGWA-1I</b>					
EPA 6020B	Field pH	6.10	Std. Units	02/17/20 08:41		
EPA 6020B	Arsenic	0.00050J	mg/L	0.0050	02/20/20 19:40	B
EPA 6020B	Barium	0.0091J	mg/L	0.010	02/20/20 19:40	
EPA 6020B	Cobalt	0.0016J	mg/L	0.0050	02/20/20 19:40	
EPA 6020B	Lithium	0.0023J	mg/L	0.030	02/20/20 19:40	
EPA 6020B	Molybdenum	0.0062J	mg/L	0.010	02/20/20 19:40	
EPA 6020B	Thallium	0.000055J	mg/L	0.0010	02/20/20 19:40	
<b>2628972002</b>	<b>YGWA-1D</b>					
EPA 6020B	Field pH	7.20	Std. Units	02/17/20 08:41		
EPA 6020B	Antimony	0.00088J	mg/L	0.0030	02/20/20 20:03	
EPA 6020B	Arsenic	0.0026J	mg/L	0.0050	02/20/20 20:03	B
EPA 6020B	Barium	0.0066J	mg/L	0.010	02/20/20 20:03	
EPA 6020B	Chromium	0.00042J	mg/L	0.010	02/20/20 20:03	
EPA 6020B	Lead	0.000049J	mg/L	0.0050	02/20/20 20:03	
EPA 6020B	Lithium	0.011J	mg/L	0.030	02/20/20 20:03	
EPA 6020B	Molybdenum	0.0087J	mg/L	0.010	02/20/20 20:03	
EPA 300.0 Rev 2.1 1993	Fluoride	0.061J	mg/L	0.30	02/18/20 13:41	
<b>2628972003</b>	<b>YGWA-2I</b>					
EPA 6020B	Field pH	7.38	Std. Units	02/17/20 08:41		
EPA 6020B	Antimony	0.00036J	mg/L	0.0030	02/20/20 20:08	
EPA 6020B	Arsenic	0.0044J	mg/L	0.0050	02/20/20 20:08	B
EPA 6020B	Barium	0.0036J	mg/L	0.010	02/20/20 20:08	
EPA 6020B	Lithium	0.0012J	mg/L	0.030	02/20/20 20:08	
EPA 6020B	Molybdenum	0.0057J	mg/L	0.010	02/20/20 20:08	
EPA 300.0 Rev 2.1 1993	Fluoride	0.075J	mg/L	0.30	02/18/20 13:56	
<b>2628972004</b>	<b>YGWA-3I</b>					
EPA 6020B	Field pH	7.09	Std. Units	02/17/20 08:41		
EPA 6020B	Arsenic	0.0041J	mg/L	0.0050	02/20/20 20:14	B
EPA 6020B	Barium	0.0031J	mg/L	0.010	02/20/20 20:14	
EPA 6020B	Lithium	0.013J	mg/L	0.030	02/20/20 20:14	
EPA 6020B	Molybdenum	0.0030J	mg/L	0.010	02/20/20 20:14	
EPA 300.0 Rev 2.1 1993	Fluoride	0.094J	mg/L	0.30	02/18/20 14:11	
<b>2628972005</b>	<b>YGWA-3D</b>					
EPA 6020B	Field pH	7.83	Std. Units	02/17/20 08:41		
EPA 6020B	Arsenic	0.0038J	mg/L	0.0050	02/20/20 20:20	B
EPA 6020B	Barium	0.0062J	mg/L	0.010	02/20/20 20:20	
EPA 6020B	Lithium	0.019J	mg/L	0.030	02/20/20 20:20	
EPA 6020B	Molybdenum	0.013	mg/L	0.010	02/20/20 20:20	
EPA 300.0 Rev 2.1 1993	Fluoride	0.40	mg/L	0.30	02/18/20 14:26	
<b>2628972006</b>	<b>YGWA-30I</b>					
EPA 6020B	Field pH	5.80	Std. Units	02/17/20 08:41		
EPA 6020B	Arsenic	0.0032J	mg/L	0.0050	02/20/20 22:09	B
EPA 6020B	Barium	0.0073J	mg/L	0.010	02/20/20 22:09	
EPA 6020B	Cobalt	0.014	mg/L	0.0050	02/20/20 22:09	

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>2628972006</b>	<b>YGWA-30I</b>					
EPA 6020B	Lithium	0.0013J	mg/L	0.030	02/20/20 22:09	
<b>2628972007</b>	<b>YGWA-14S</b>					
EPA 6020B	Field pH	5.48	Std. Units		02/17/20 08:41	
EPA 6020B	Barium	0.0070J	mg/L	0.010	02/24/20 15:23	
EPA 6020B	Beryllium	0.00019J	mg/L	0.0030	02/24/20 15:23	
EPA 6020B	Thallium	0.000089J	mg/L	0.0010	02/24/20 15:23	
<b>2628972008</b>	<b>YGWC-26S</b>					
EPA 6020B	Field pH	5.29	Std. Units		02/17/20 08:41	
EPA 6020B	Antimony	0.0016J	mg/L	0.0030	02/24/20 15:46	
EPA 6020B	Barium	0.025	mg/L	0.010	02/24/20 15:46	
EPA 6020B	Beryllium	0.00015J	mg/L	0.0030	02/24/20 15:46	
EPA 6020B	Chromium	0.0012J	mg/L	0.010	02/24/20 15:46	
EPA 6020B	Cobalt	0.0019J	mg/L	0.0050	02/24/20 15:46	
EPA 6020B	Thallium	0.000057J	mg/L	0.0010	02/24/20 15:46	
<b>2628972009</b>	<b>YGWC-26I</b>					
EPA 6020B	Field pH	5.93	Std. Units		02/17/20 08:41	
EPA 6020B	Antimony	0.00052J	mg/L	0.0030	02/24/20 15:52	
EPA 6020B	Barium	0.060	mg/L	0.010	02/24/20 15:52	
EPA 6020B	Chromium	0.00044J	mg/L	0.010	02/24/20 15:52	
EPA 6020B	Lithium	0.0073J	mg/L	0.030	02/24/20 15:52	
EPA 6020B	Selenium	0.0019J	mg/L	0.010	02/24/20 15:52	
<b>2628972010</b>	<b>DUP-1</b>					
EPA 6020B	Antimony	0.00028J	mg/L	0.0030	02/24/20 15:57	
EPA 6020B	Barium	0.0076J	mg/L	0.010	02/24/20 15:57	
EPA 6020B	Beryllium	0.00023J	mg/L	0.0030	02/24/20 15:57	
EPA 6020B	Chromium	0.00065J	mg/L	0.010	02/24/20 15:57	
<b>2628972011</b>	<b>DUP-2</b>					
EPA 6020B	Barium	0.017	mg/L	0.010	02/24/20 16:03	
EPA 6020B	Beryllium	0.00014J	mg/L	0.0030	02/24/20 16:03	
<b>2628972013</b>	<b>YGWC-29I</b>					
EPA 6020B	Field pH	6.32	Std. Units		02/17/20 08:41	
EPA 6020B	Barium	0.053	mg/L	0.010	02/24/20 16:33	
EPA 6020B	Cadmium	0.00018J	mg/L	0.0025	02/24/20 16:33	
EPA 6020B	Lithium	0.0057J	mg/L	0.030	02/24/20 16:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.053J	mg/L	0.30	02/21/20 15:57	
<b>2628972017</b>	<b>YGWC-27S</b>					
EPA 6020B	Field pH	6.31	Std. Units		02/17/20 08:41	
EPA 6020B	Barium	0.097	mg/L	0.010	02/24/20 16:55	
EPA 6020B	Cobalt	0.0026J	mg/L	0.0050	02/24/20 16:55	
EPA 6020B	Lead	0.000062J	mg/L	0.0050	02/24/20 16:55	
EPA 6020B	Thallium	0.00010J	mg/L	0.0010	02/24/20 16:55	
EPA 300.0 Rev 2.1 1993	Fluoride	0.11J	mg/L	0.30	02/21/20 17:21	

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2628972018	<b>YGWC-27I</b>					
EPA 6020B	Field pH	6.40	Std. Units		02/17/20 08:41	
EPA 6020B	Arsenic	0.00055J	mg/L	0.0050	02/24/20 17:01	
EPA 6020B	Barium	0.063	mg/L	0.010	02/24/20 17:01	
EPA 6020B	Beryllium	0.00021J	mg/L	0.0030	02/24/20 17:01	
EPA 6020B	Cobalt	0.012	mg/L	0.0050	02/24/20 17:01	
EPA 6020B	Lithium	0.0079J	mg/L	0.030	02/24/20 17:01	
EPA 6020B	Molybdenum	0.0014J	mg/L	0.010	02/24/20 17:01	
2628972019	<b>YGWC-28S</b>					
EPA 6020B	Field pH	6.53	Std. Units		02/17/20 08:41	
EPA 6020B	Arsenic	0.00065J	mg/L	0.0050	02/24/20 17:07	
EPA 6020B	Barium	0.21	mg/L	0.010	02/24/20 17:07	
EPA 6020B	Cobalt	0.00092J	mg/L	0.0050	02/24/20 17:07	
EPA 6020B	Lead	0.000054J	mg/L	0.0050	02/24/20 17:07	
EPA 300.0 Rev 2.1 1993	Fluoride	0.18J	mg/L	0.30	02/21/20 18:31	
2628972020	<b>YGWC-28I</b>					
EPA 6020B	Field pH	6.49	Std. Units		02/17/20 08:41	
EPA 6020B	Barium	0.089	mg/L	0.010	02/24/20 17:13	
EPA 6020B	Cadmium	0.00013J	mg/L	0.0025	02/24/20 17:13	
EPA 6020B	Chromium	0.00047J	mg/L	0.010	02/24/20 17:13	
EPA 6020B	Lithium	0.0069J	mg/L	0.030	02/24/20 17:13	
EPA 6020B	Molybdenum	0.0013J	mg/L	0.010	02/24/20 17:13	
EPA 300.0 Rev 2.1 1993	Fluoride	0.14J	mg/L	0.30	02/21/20 18:45	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWA-11		Lab ID: 2628972001		Collected: 02/10/20 15:21		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	6.10	Std. Units			1		02/17/20 08:41		
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 19:40	7440-36-0	
Arsenic	<b>0.00050J</b>	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 19:40	7440-38-2	B
Barium	<b>0.0091J</b>	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 19:40	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 19:40	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 19:40	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 19:40	7440-47-3	
Cobalt	<b>0.0016J</b>	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 19:40	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 19:40	7439-92-1	
Lithium	<b>0.0023J</b>	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 19:40	7439-93-2	
Molybdenum	<b>0.0062J</b>	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 19:40	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 19:40	7782-49-2	
Thallium	<b>0.000055J</b>	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 19:40	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 16:55	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/18/20 12:57	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWA-1D		Lab ID: 2628972002		Collected: 02/10/20 14:53		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	7.20	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	0.00088J	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 20:03	7440-36-0	
Arsenic	0.0026J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 20:03	7440-38-2	B
Barium	0.0066J	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 20:03	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 20:03	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 20:03	7440-43-9	
Chromium	0.00042J	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 20:03	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 20:03	7440-48-4	
Lead	0.000049J	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 20:03	7439-92-1	
Lithium	0.011J	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 20:03	7439-93-2	
Molybdenum	0.0087J	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 20:03	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 20:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 20:03	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:09	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.061J	mg/L	0.30	0.050	1		02/18/20 13:41	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWA-2I		Lab ID: 2628972003		Collected: 02/11/20 12:10		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	7.38	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	0.00036J	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 20:08	7440-36-0	
Arsenic	0.0044J	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 20:08	7440-38-2	B
Barium	0.0036J	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 20:08	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 20:08	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 20:08	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 20:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 20:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 20:08	7439-92-1	
Lithium	0.0012J	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 20:08	7439-93-2	
Molybdenum	0.0057J	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 20:08	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 20:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 20:08	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:11	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.075J	mg/L	0.30	0.050	1		02/18/20 13:56	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWA-3I		Lab ID: 2628972004		Collected: 02/11/20 16:05		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	7.09	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 20:14	7440-36-0	
Arsenic	<b>0.0041J</b>	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 20:14	7440-38-2	B
Barium	<b>0.0031J</b>	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 20:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 20:14	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 20:14	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 20:14	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 20:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 20:14	7439-92-1	
Lithium	<b>0.013J</b>	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 20:14	7439-93-2	
Molybdenum	<b>0.0030J</b>	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 20:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 20:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 20:14	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:14	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	<b>0.094J</b>	mg/L	0.30	0.050	1			02/18/20 14:11	16984-48-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWA-3D		Lab ID: 2628972005		Collected: 02/12/20 10:40		Received: 02/12/20 15:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	7.83	Std. Units			1		02/17/20 08:41		
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 20:20	7440-36-0	
Arsenic	<b>0.0038J</b>	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 20:20	7440-38-2	B
Barium	<b>0.0062J</b>	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 20:20	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 20:20	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 20:20	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 20:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 20:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 20:20	7439-92-1	
Lithium	<b>0.019J</b>	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 20:20	7439-93-2	
Molybdenum	<b>0.013</b>	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 20:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 20:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 20:20	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/18/20 16:17	02/19/20 17:16	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	<b>0.40</b>	mg/L	0.30	0.050	1		02/18/20 14:26	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWA-30I		Lab ID: 2628972006		Collected: 02/12/20 14:55		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	5.80	Std. Units			1		02/17/20 08:41		
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/19/20 13:38	02/20/20 22:09	7440-36-0	
Arsenic	<b>0.0032J</b>	mg/L	0.0050	0.00035	1	02/19/20 13:38	02/20/20 22:09	7440-38-2	B
Barium	<b>0.0073J</b>	mg/L	0.010	0.00049	1	02/19/20 13:38	02/20/20 22:09	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/19/20 13:38	02/20/20 22:09	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/19/20 13:38	02/20/20 22:09	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/19/20 13:38	02/20/20 22:09	7440-47-3	
Cobalt	<b>0.014</b>	mg/L	0.0050	0.00030	1	02/19/20 13:38	02/20/20 22:09	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/19/20 13:38	02/20/20 22:09	7439-92-1	
Lithium	<b>0.0013J</b>	mg/L	0.030	0.00078	1	02/19/20 13:38	02/20/20 22:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/19/20 13:38	02/20/20 22:09	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/19/20 13:38	02/20/20 22:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/19/20 13:38	02/20/20 22:09	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 09:49	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/21/20 13:50	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWA-14S		Lab ID: 2628972007		Collected: 02/12/20 13:30		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	5.48	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 15:23	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 15:23	7440-38-2	
Barium	<b>0.0070J</b>	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 15:23	7440-39-3	
Beryllium	<b>0.00019J</b>	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 15:23	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 15:23	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 15:23	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 15:23	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 15:23	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 15:23	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 15:23	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 15:23	7782-49-2	
Thallium	<b>0.000089J</b>	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 15:23	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:03	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/21/20 14:04	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWC-26S		Lab ID: 2628972008		Collected: 02/13/20 10:40		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	5.29	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	<b>0.0016J</b>	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 15:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 15:46	7440-38-2	
Barium	<b>0.025</b>	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 15:46	7440-39-3	
Beryllium	<b>0.00015J</b>	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 15:46	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 15:46	7440-43-9	
Chromium	<b>0.0012J</b>	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 15:46	7440-47-3	
Cobalt	<b>0.0019J</b>	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 15:46	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 15:46	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 15:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 15:46	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 15:46	7782-49-2	
Thallium	<b>0.000057J</b>	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 15:46	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:06	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/21/20 14:18	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWC-26I		Lab ID: 2628972009		Collected: 02/13/20 11:30		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	5.93	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	<b>0.00052J</b>	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 15:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 15:52	7440-38-2	
Barium	<b>0.060</b>	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 15:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 15:52	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 15:52	7440-43-9	
Chromium	<b>0.00044J</b>	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 15:52	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 15:52	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 15:52	7439-92-1	
Lithium	<b>0.0073J</b>	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 15:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 15:52	7439-98-7	
Selenium	<b>0.0019J</b>	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 15:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 15:52	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:08	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/21/20 14:32	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT  
Pace Project No.: 2628972

Sample: DUP-1	Lab ID: 2628972010	Collected: 02/12/20 00:00	Received: 02/14/20 14:39	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	<b>0.00028J</b>	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 15:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 15:57	7440-38-2	
Barium	<b>0.0076J</b>	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 15:57	7440-39-3	
Beryllium	<b>0.00023J</b>	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 15:57	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 15:57	7440-43-9	
Chromium	<b>0.00065J</b>	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 15:57	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 15:57	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 15:57	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 15:57	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 15:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 15:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 15:57	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:10	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	ND	mg/L	0.30	0.050	1		02/21/20 14:46	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: DUP-2		Lab ID: 2628972011		Collected: 02/13/20 00:00		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report				Analyzed	CAS No.	Qual
			Limit	MDL	DF	Prepared			
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 16:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 16:03	7440-38-2	
Barium	<b>0.017</b>	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 16:03	7440-39-3	
Beryllium	<b>0.00014J</b>	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 16:03	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 16:03	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 16:03	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 16:03	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 16:03	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 16:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 16:03	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 16:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 16:03	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:13	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993							
Fluoride	ND	mg/L	0.30	0.050	1		02/21/20 15:28	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: EB-1-2-13-20		Lab ID: 2628972012		Collected: 02/13/20 11:00		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report				Analyzed	CAS No.	Qual
			Limit	MDL	DF	Prepared			
<b>6020B MET ICPMS</b>								Analytical Method: EPA 6020B Preparation Method: EPA 3005A	
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 16:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 16:27	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 16:27	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 16:27	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 16:27	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 16:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 16:27	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 16:27	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 16:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 16:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 16:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 16:27	7440-28-0	
<b>7470 Mercury</b>								Analytical Method: EPA 7470A Preparation Method: EPA 7470A	
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:15	7439-97-6	
<b>300.0 IC Anions 28 Days</b>								Analytical Method: EPA 300.0 Rev 2.1 1993	
Fluoride	ND	mg/L	0.30	0.050	1			02/21/20 15:43	16984-48-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWC-29I		Lab ID: 2628972013		Collected: 02/13/20 13:02		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	6.32	Std. Units			1		02/17/20 08:41		
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 16:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 16:33	7440-38-2	
Barium	0.053	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 16:33	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 16:33	7440-41-7	
Cadmium	0.00018J	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 16:33	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 16:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 16:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 16:33	7439-92-1	
Lithium	0.0057J	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 16:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 16:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 16:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 16:33	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:18	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.053J	mg/L	0.30	0.050	1		02/21/20 15:57	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: FB-1-2-13-20		Lab ID: 2628972014		Collected: 02/13/20 13:30		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report				Analyzed	CAS No.	Qual
			Limit	MDL	DF	Prepared			
<b>6020B MET ICPMS</b>								Analytical Method: EPA 6020B Preparation Method: EPA 3005A	
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 16:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 16:38	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 16:38	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 16:38	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 16:38	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 16:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 16:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 16:38	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 16:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 16:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 16:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 16:38	7440-28-0	
<b>7470 Mercury</b>								Analytical Method: EPA 7470A Preparation Method: EPA 7470A	
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:20	7439-97-6	
<b>300.0 IC Anions 28 Days</b>								Analytical Method: EPA 300.0 Rev 2.1 1993	
Fluoride	ND	mg/L	0.30	0.050	1			02/21/20 16:11	16984-48-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: FB-2-2-13-20		Lab ID: 2628972015		Collected: 02/13/20 13:40		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report				Analyzed	CAS No.	Qual
			Limit	MDL	DF	Prepared			
<b>6020B MET ICPMS</b>								Analytical Method: EPA 6020B Preparation Method: EPA 3005A	
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 16:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 16:44	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 16:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 16:44	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 16:44	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 16:44	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 16:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 16:44	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 16:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 16:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 16:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 16:44	7440-28-0	
<b>7470 Mercury</b>								Analytical Method: EPA 7470A Preparation Method: EPA 7470A	
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:22	7439-97-6	
<b>300.0 IC Anions 28 Days</b>								Analytical Method: EPA 300.0 Rev 2.1 1993	
Fluoride	ND	mg/L	0.30	0.050	1			02/21/20 16:25	16984-48-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: EB-2-2-13-20		Lab ID: 2628972016		Collected: 02/13/20 13:45		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report				Analyzed	CAS No.	Qual
			Limit	MDL	DF	Prepared			
<b>6020B MET ICPMS</b>								Analytical Method: EPA 6020B Preparation Method: EPA 3005A	
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 16:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 16:50	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 16:50	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 16:50	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 16:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 16:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 16:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 16:50	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 16:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 16:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 16:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 16:50	7440-28-0	
<b>7470 Mercury</b>								Analytical Method: EPA 7470A Preparation Method: EPA 7470A	
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:25	7439-97-6	
<b>300.0 IC Anions 28 Days</b>								Analytical Method: EPA 300.0 Rev 2.1 1993	
Fluoride	ND	mg/L	0.30	0.050	1			02/21/20 17:07	16984-48-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWC-27S		Lab ID: 2628972017		Collected: 02/13/20 11:50		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	6.31	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 16:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 16:55	7440-38-2	
Barium	<b>0.097</b>	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 16:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 16:55	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 16:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 16:55	7440-47-3	
Cobalt	<b>0.0026J</b>	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 16:55	7440-48-4	
Lead	<b>0.000062J</b>	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 16:55	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 16:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 16:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 16:55	7782-49-2	
Thallium	<b>0.00010J</b>	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 16:55	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:32	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	<b>0.11J</b>	mg/L	0.30	0.050	1		02/21/20 17:21	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWC-27I		Lab ID: 2628972018		Collected: 02/13/20 10:25		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	6.40	Std. Units			1		02/17/20 08:41		
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 17:01	7440-36-0	
Arsenic	<b>0.00055J</b>	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 17:01	7440-38-2	
Barium	<b>0.063</b>	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 17:01	7440-39-3	
Beryllium	<b>0.00021J</b>	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 17:01	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 17:01	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 17:01	7440-47-3	
Cobalt	<b>0.012</b>	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 17:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 17:01	7439-92-1	
Lithium	<b>0.0079J</b>	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 17:01	7439-93-2	
Molybdenum	<b>0.0014J</b>	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 17:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 17:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 17:01	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:34	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	ND	mg/L	0.30	0.050	1		02/21/20 17:35	16984-48-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWC-28S		Lab ID: 2628972019		Collected: 02/13/20 13:45		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	6.53	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 17:07	7440-36-0	
Arsenic	<b>0.00065J</b>	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 17:07	7440-38-2	
Barium	<b>0.21</b>	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 17:07	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 17:07	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 17:07	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 17:07	7440-47-3	
Cobalt	<b>0.00092J</b>	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 17:07	7440-48-4	
Lead	<b>0.000054J</b>	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 17:07	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 17:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 17:07	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 17:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 17:07	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:36	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	<b>0.18J</b>	mg/L	0.30	0.050	1		02/21/20 18:31	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Sample: YGWC-28I		Lab ID: 2628972020		Collected: 02/13/20 14:50		Received: 02/14/20 14:39		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method:								
Field pH	6.49	Std. Units			1			02/17/20 08:41	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	02/22/20 17:25	02/24/20 17:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	02/22/20 17:25	02/24/20 17:13	7440-38-2	
Barium	0.089	mg/L	0.010	0.00049	1	02/22/20 17:25	02/24/20 17:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	02/22/20 17:25	02/24/20 17:13	7440-41-7	
Cadmium	0.00013J	mg/L	0.0025	0.00011	1	02/22/20 17:25	02/24/20 17:13	7440-43-9	
Chromium	0.00047J	mg/L	0.010	0.00039	1	02/22/20 17:25	02/24/20 17:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	02/22/20 17:25	02/24/20 17:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	02/22/20 17:25	02/24/20 17:13	7439-92-1	
Lithium	0.0069J	mg/L	0.030	0.00078	1	02/22/20 17:25	02/24/20 17:13	7439-93-2	
Molybdenum	0.0013J	mg/L	0.010	0.00095	1	02/22/20 17:25	02/24/20 17:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	02/22/20 17:25	02/24/20 17:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	02/22/20 17:25	02/24/20 17:13	7440-28-0	
<b>7470 Mercury</b>	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	02/24/20 11:27	02/25/20 10:39	7439-97-6	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993								
Fluoride	0.14J	mg/L	0.30	0.050	1		02/21/20 18:45	16984-48-8	

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

QC Batch:	43498	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
Associated Lab Samples:	2628972001, 2628972002, 2628972003, 2628972004, 2628972005		

METHOD BLANK: 199117   Matrix: Water

Associated Lab Samples: 2628972001, 2628972002, 2628972003, 2628972004, 2628972005

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Mercury	mg/L	0.00016J	0.00050	0.00014	02/19/20 16:43	

LABORATORY CONTROL SAMPLE: 199118

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Mercury	mg/L	0.0025	0.0029	115	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 199119   199120

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		2628972001	Spike										
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0025	95	98	75-125	3	20		

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

QC Batch:	43742	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
Associated Lab Samples:	2628972006, 2628972007, 2628972008, 2628972009, 2628972010, 2628972011, 2628972012, 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020		

METHOD BLANK: 200407 Matrix: Water

Associated Lab Samples: 2628972006, 2628972007, 2628972008, 2628972009, 2628972010, 2628972011, 2628972012, 2628972013,  
2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	02/25/20 09:37	

LABORATORY CONTROL SAMPLE: 200408

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 200409 200410

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0020	97	82	75-125	17	20

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## **QUALITY CONTROL DATA**

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

QC Batch: 43544 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 2628972001, 2628972002, 2628972003, 2628972004, 2628972005, 2628972006

METHOD BLANK: 199284 Matrix: Water

Associated Lab Samples: 2628972001, 2628972002, 2628972003, 2628972004, 2628972005, 2628972006

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Antimony	mg/L	ND	0.0030	0.00027	02/20/20 19:28	
Arsenic	mg/L	0.00079J	0.0050	0.00035	02/20/20 19:28	
Barium	mg/L	ND	0.010	0.00049	02/20/20 19:28	
Beryllium	mg/L	ND	0.0030	0.000074	02/20/20 19:28	
Cadmium	mg/L	ND	0.0025	0.00011	02/20/20 19:28	
Chromium	mg/L	ND	0.010	0.00039	02/20/20 19:28	
Cobalt	mg/L	ND	0.0050	0.00030	02/20/20 19:28	
Lead	mg/L	ND	0.0050	0.000046	02/20/20 19:28	
Lithium	mg/L	ND	0.030	0.00078	02/20/20 19:28	
Molybdenum	mg/L	ND	0.010	0.00095	02/20/20 19:28	
Selenium	mg/L	ND	0.010	0.0013	02/20/20 19:28	
Thallium	mg/L	ND	0.0010	0.000052	02/20/20 19:28	

LABORATORY CONTROL SAMPLE: 199285

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.11	108	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.11	107	80-120	
Selenium	mg/L	0.1	0.10	103	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 199286 199287

Parameter	Units	MS		MSD		% Rec	MSD % Rec	% Rec Limits	Max		
		2628972001	Spike Conc.	Spike Conc.	MS Result				RPD	RPD Qual	
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	75-125	0	20	
Arsenic	mg/L	0.00050J	0.1	0.1	0.10	0.10	101	75-125	1	20	
Barium	mg/L	0.0091J	0.1	0.1	0.11	0.11	102	103	75-125	2	20
Beryllium	mg/L	ND	0.1	0.1	0.095	0.090	95	90	75-125	5	20
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	1	20

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

		MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		199286		199287							
Parameter	Units	MS		MSD		MS Result	MS % Rec	MSD Result	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2628972001	Spike Conc.	Spike Conc.	MS Result								
Chromium	mg/L	ND	0.1	0.1	0.11	0.11	105	106	75-125	0	20		
Cobalt	mg/L	0.0016J	0.1	0.1	0.11	0.10	104	103	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Lithium	mg/L	0.0023J	0.1	0.1	0.096	0.095	94	92	75-125	1	20		
Molybdenum	mg/L	0.0062J	0.1	0.1	0.11	0.11	107	108	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	2	20		
Thallium	mg/L	0.000055J	0.1	0.1	0.10	0.10	102	102	75-125	1	20		

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## REPORT OF LABORATORY ANALYSIS

## QUALITY CONTROL DATA

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

QC Batch:	43713	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET
Associated Lab Samples: 2628972007, 2628972008, 2628972009, 2628972010, 2628972011, 2628972012, 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020			

METHOD BLANK:	200292	Matrix:	Water
Associated Lab Samples: 2628972007, 2628972008, 2628972009, 2628972010, 2628972011, 2628972012, 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020			

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Antimony	mg/L	ND	0.0030	0.00027	02/24/20 15:12	
Arsenic	mg/L	ND	0.0050	0.00035	02/24/20 15:12	
Barium	mg/L	ND	0.010	0.00049	02/24/20 15:12	
Beryllium	mg/L	ND	0.0030	0.000074	02/24/20 15:12	
Cadmium	mg/L	ND	0.0025	0.00011	02/24/20 15:12	
Chromium	mg/L	ND	0.010	0.00039	02/24/20 15:12	
Cobalt	mg/L	ND	0.0050	0.00030	02/24/20 15:12	
Lead	mg/L	ND	0.0050	0.000046	02/24/20 15:12	
Lithium	mg/L	ND	0.030	0.00078	02/24/20 15:12	
Molybdenum	mg/L	ND	0.010	0.00095	02/24/20 15:12	
Selenium	mg/L	ND	0.010	0.0013	02/24/20 15:12	
Thallium	mg/L	ND	0.0010	0.000052	02/24/20 15:12	

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.10	102	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	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2628972007 Result	Spike Conc.	Spike Conc.	MS Result						
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	106	105	75-125	1	20
Arsenic	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20
Barium	mg/L	0.0070J	0.1	0.1	0.11	0.11	103	100	75-125	3	20
Beryllium	mg/L	0.00019J	0.1	0.1	0.11	0.11	105	106	75-125	1	20

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		200294		200295							
Parameter	Units	MS		MSD		MS Result	% Rec	MSD % Rec	% Rec	Max	
		2628972007	Spike Conc.	Spike Conc.	MS Result					RPD	RPD
Cadmium	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	1	20
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	103	101	75-125	2	20
Cobalt	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	3	20
Lead	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	0	20
Lithium	mg/L	ND	0.1	0.1	0.11	0.11	106	106	75-125	0	20
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.099	100	99	75-125	1	20
Selenium	mg/L	ND	0.1	0.1	0.10	0.097	100	95	75-125	5	20
Thallium	mg/L	0.000089J	0.1	0.1	0.097	0.095	97	95	75-125	2	20

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

QC Batch: 525418 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: 2628972001, 2628972002, 2628972003, 2628972004, 2628972005

METHOD BLANK: 2808346 Matrix: Water

Associated Lab Samples: 2628972001, 2628972002, 2628972003, 2628972004, 2628972005

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Fluoride	mg/L	ND	0.10	0.050	02/18/20 08:29	

LABORATORY CONTROL SAMPLE: 2808347

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Fluoride	mg/L	2.5	2.4	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2808348 2808349

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max
		Result	Spike								
Fluoride	mg/L	92464515069	2.5	2.5	2.5	2.4	2.4	97	94	90-110	3 10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2808350 2808351

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max
		Result	Spike								
Fluoride	mg/L	2628972001	2.5	2.5	2.3	2.3	2.3	93	92	90-110	0 10

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

QC Batch: 526047 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: 2628972006, 2628972007, 2628972008, 2628972009, 2628972010, 2628972011, 2628972012, 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020

METHOD BLANK: 2811595 Matrix: Water

Associated Lab Samples: 2628972006, 2628972007, 2628972008, 2628972009, 2628972010, 2628972011, 2628972012, 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	02/21/20 12:40	

LABORATORY CONTROL SAMPLE: 2811596

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.7	109	90-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2811597 2811598

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.8	2.6	112	104	90-110	7	10 M1

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2811599 2811600

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	108	107	90-110	1	10

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## QUALIFIERS

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

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### 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.

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2628972001	YGWA-1I				
2628972002	YGWA-1D				
2628972003	YGWA-2I				
2628972004	YGWA-3I				
2628972005	YGWA-3D				
2628972006	YGWA-30I				
2628972007	YGWA-14S				
2628972008	YGWC-26S				
2628972009	YGWC-26I				
2628972013	YGWC-29I				
2628972017	YGWC-27S				
2628972018	YGWC-27I				
2628972019	YGWC-28S				
2628972020	YGWC-28I				
2628972001	YGWA-1I	EPA 3005A	43544	EPA 6020B	43556
2628972002	YGWA-1D	EPA 3005A	43544	EPA 6020B	43556
2628972003	YGWA-2I	EPA 3005A	43544	EPA 6020B	43556
2628972004	YGWA-3I	EPA 3005A	43544	EPA 6020B	43556
2628972005	YGWA-3D	EPA 3005A	43544	EPA 6020B	43556
2628972006	YGWA-30I	EPA 3005A	43544	EPA 6020B	43556
2628972007	YGWA-14S	EPA 3005A	43713	EPA 6020B	43729
2628972008	YGWC-26S	EPA 3005A	43713	EPA 6020B	43729
2628972009	YGWC-26I	EPA 3005A	43713	EPA 6020B	43729
2628972010	DUP-1	EPA 3005A	43713	EPA 6020B	43729
2628972011	DUP-2	EPA 3005A	43713	EPA 6020B	43729
2628972012	EB-1-2-13-20	EPA 3005A	43713	EPA 6020B	43729
2628972013	YGWC-29I	EPA 3005A	43713	EPA 6020B	43729
2628972014	FB-1-2-13-20	EPA 3005A	43713	EPA 6020B	43729
2628972015	FB-2-2-13-20	EPA 3005A	43713	EPA 6020B	43729
2628972016	EB-2-2-13-20	EPA 3005A	43713	EPA 6020B	43729
2628972017	YGWC-27S	EPA 3005A	43713	EPA 6020B	43729
2628972018	YGWC-27I	EPA 3005A	43713	EPA 6020B	43729
2628972019	YGWC-28S	EPA 3005A	43713	EPA 6020B	43729
2628972020	YGWC-28I	EPA 3005A	43713	EPA 6020B	43729
2628972001	YGWA-1I	EPA 7470A	43498	EPA 7470A	43503
2628972002	YGWA-1D	EPA 7470A	43498	EPA 7470A	43503
2628972003	YGWA-2I	EPA 7470A	43498	EPA 7470A	43503
2628972004	YGWA-3I	EPA 7470A	43498	EPA 7470A	43503
2628972005	YGWA-3D	EPA 7470A	43498	EPA 7470A	43503
2628972006	YGWA-30I	EPA 7470A	43742	EPA 7470A	43802
2628972007	YGWA-14S	EPA 7470A	43742	EPA 7470A	43802
2628972008	YGWC-26S	EPA 7470A	43742	EPA 7470A	43802
2628972009	YGWC-26I	EPA 7470A	43742	EPA 7470A	43802
2628972010	DUP-1	EPA 7470A	43742	EPA 7470A	43802
2628972011	DUP-2	EPA 7470A	43742	EPA 7470A	43802
2628972012	EB-1-2-13-20	EPA 7470A	43742	EPA 7470A	43802
2628972013	YGWC-29I	EPA 7470A	43742	EPA 7470A	43802

**REPORT OF LABORATORY ANALYSIS**

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without the written consent of Pace Analytical Services, LLC.

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: PLANT YATES AP-2 - FEB EVENT

Pace Project No.: 2628972

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2628972014	FB-1-2-13-20	EPA 7470A	43742	EPA 7470A	43802
2628972015	FB-2-2-13-20	EPA 7470A	43742	EPA 7470A	43802
2628972016	EB-2-2-13-20	EPA 7470A	43742	EPA 7470A	43802
2628972017	YGWC-27S	EPA 7470A	43742	EPA 7470A	43802
2628972018	YGWC-27I	EPA 7470A	43742	EPA 7470A	43802
2628972019	YGWC-28S	EPA 7470A	43742	EPA 7470A	43802
2628972020	YGWC-28I	EPA 7470A	43742	EPA 7470A	43802
2628972001	YGWA-1I	EPA 300.0 Rev 2.1 1993	525418		
2628972002	YGWA-1D	EPA 300.0 Rev 2.1 1993	525418		
2628972003	YGWA-2I	EPA 300.0 Rev 2.1 1993	525418		
2628972004	YGWA-3I	EPA 300.0 Rev 2.1 1993	525418		
2628972005	YGWA-3D	EPA 300.0 Rev 2.1 1993	525418		
2628972006	YGWA-30I	EPA 300.0 Rev 2.1 1993	526047		
2628972007	YGWA-14S	EPA 300.0 Rev 2.1 1993	526047		
2628972008	YGWC-26S	EPA 300.0 Rev 2.1 1993	526047		
2628972009	YGWC-26I	EPA 300.0 Rev 2.1 1993	526047		
2628972010	DUP-1	EPA 300.0 Rev 2.1 1993	526047		
2628972011	DUP-2	EPA 300.0 Rev 2.1 1993	526047		
2628972012	EB-1-2-13-20	EPA 300.0 Rev 2.1 1993	526047		
2628972013	YGWC-29I	EPA 300.0 Rev 2.1 1993	526047		
2628972014	FB-1-2-13-20	EPA 300.0 Rev 2.1 1993	526047		
2628972015	FB-2-2-13-20	EPA 300.0 Rev 2.1 1993	526047		
2628972016	EB-2-2-13-20	EPA 300.0 Rev 2.1 1993	526047		
2628972017	YGWC-27S	EPA 300.0 Rev 2.1 1993	526047		
2628972018	YGWC-27I	EPA 300.0 Rev 2.1 1993	526047		
2628972019	YGWC-28S	EPA 300.0 Rev 2.1 1993	526047		
2628972020	YGWC-28I	EPA 300.0 Rev 2.1 1993	526047		

**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: <b>GA Power</b>	Required Project Information:
Address: <b>Atlanta, GA</b>	Report To: <b>SCS Contacts</b>

Page: _____	of _____
-------------	----------

Invoice Information:

Attention: **Southern Co.**

Company Name:

REGULATORY AGENCY:

NPDES

GROUND WATER

DRINKING WATER

UST

RCRA

OTHER COR

Email To: **SCS Contacts**

Phone:

Fax: **10 day**

Requested Due Date/TAT:

Project Number:

Pace Project Manager: **Kevin Hening**

Pace Project #: **2916-1**

Site Location: **GA**

STATE: **GA**

Request/Analysis Filtered (Y/N)

**Y/N**

# CHAIN-OF-CUSTODY / Analytical Request Document

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

**Section A**

Required Client Information:

**Company:** GA Power  
**Address:** Atlanta, GA

**Email To:** SCS Contacts

**Phone:** **Fax:**  
**Requested Due Date/TAT:** 10 Day

**Page:**

of

Page 41 of 46

**Section B**

Required Project Information:

**Report To:** SCS Contacts**Copy To:** ACC Contacts**Purchase Order No.:****Project Name:** Plant Yates AP-2 - Feb Event**Project Number:** Pace Project Manager: Kevin Herring**Pace Project #:** 2916-1
**Section C**

Invoice Information:

**Attention:** Southern Co.  
**Company Name:**

**Address:**

**Pace Quale Reference:**  
 NPDES  GROUND WATER  DRINKING WATER  
 UST  RCRA  OTHER CCR

**Page:**

of

Page 41 of 46

**Section D**

Required Client Information:

**Matrix Codes**

Valid Matrix Codes

CODE

DINING WATER DW

WATER WT

WASTE WATER WW

PRODUCT P

SOIL/SOIL SL

OIL OL

WIRE WP

AIR AR

OTHER OT

Tissue TS

**Section E**

Sample ID

(A-Z, 0-9 / -)

Sample IDs MUST BE UNIQUE

**Section F**

COLLECTED

**Section G**

COMPOSITE START

**Section H**

COMPOSITE END/GRAB

**Section I**

Preservatives

**Section J**

Y/N

**Section K**

SAMPLE TEMP AT COLLECTION

**Section L**

# OF CONTAINERS

**Section M**

Analysis Test↓

**Section N**

Fluoride

**Section O**

App. IV Metals 6020/7470

**Section P**

RAD 228 &amp; 228

**Section Q**

Residual Chlorine (Y/N)

**Section R**

Pace Project No/Lab ID.

**Section S**

Temp in °C

**Section T**

Received on Ice (Y/N)

**Section U**

Custody Sealed Cooler (Y/N)

**Section V**

Samples Intact (Y/N)

Please note dry wells and note when the last sample for the event has been taken.

RElinquished by / Affiliation DATE TIME Accepted by / Affiliation DATE TIME SAMPLE CONDITIONS

RElinquished by / Affiliation

DATE

TIME

Accepted by / Affiliation

DATE

TIME

SAMPLE CONDITIONS

SAMPLE CONDITIONS

SAMPLE CONDITIONS

SAMPLE CONDITIONS

SAMPLE CONDITIONS

SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of Sampler: Hunter Hall

Signature of Sampler: 

DATE Signed: 2-14-20

MM/DD/YY: 2-14-20

# 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:

Page: 1 of \_\_\_\_\_

Company: GA Power  
Address: Atlanta, GA

Report To: SCS Contacts  
Copy To: ACC Contacts

Purchase Order No.: \_\_\_\_\_

Project Name: Plant Yates AP-2 - Feb Event

Project Number: 2016-1

Pace Project Manager: Kevin Herring  
Manager: Kevin Herring  
Pace Proto #: 2016-1

Site Location: GA  
State: GA

Attention: Southern Co.

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Pace Quote Reference: \_\_\_\_\_

Regulatory Agency: \_\_\_\_\_

NPDES    GROUND WATER    DRINKING WATER

UST    RCRA    OTHER CCR

**Section D**  
Required Client Information

MATRIX CODE	Valid Matrix Codes
DOMESTIC WATER DW	WATER
WATER WT	WASTE WATER WW
PRODUCT P	SOIL/SOIL
OR SL	OL
WIPER WP	SL
AIR OT	WT
OTHER TS	TS

**SAMPLE ID**  
(A-Z, 0-9,-)  
Sample IDs MUST BE UNIQUE

MATRIX CODE (see valid codes to left)

SAMPLE TYPE (G=GRAB C=COMP)

COLLECTED	COMPOSITE START	COMPOSITE END/GRAB
DATE	TIME	DATE

SAMPLE TEMP AT COLLECTION  
# OF CONTAINERS

Unpreserved	Preservatives
H <sub>2</sub> SO <sub>4</sub>	Y/N
HNO <sub>3</sub>	Y/N
HCl	Y/N
NaOH	Y/N
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Y/N
Methanol	Y/N
Other	Y/N

Analysis Test  
Fluoride  
App. IV Metals 6020/7470  
RAD 226 & 228

Residual Chlorine (Y/N)

Pace Project No/Lab I.D.

pH = 7.20

pH = 7.38

pH = 7.09

pH = 7.83

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## Sample Condition Upon Receipt

Client Name: GT POWER

Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  noPacking Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_Thermometer Used: TH3233Type of Ice: Wet Blue None Samples on ice, cooling process has begunCooler Temperature: 1.6

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: HW 2/16/20

Temp should be above freezing to 6°C

Comments: \_\_\_\_\_

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input checked="" 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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>10 Day</u>
Sufficient Volume:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input 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 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 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 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
		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 type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input 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)

F-ALLC003rev.3, 11September2008



**Document Name:  
Bottle Identification Form (BIF)**

Document Issued: March 14, 2019

Page 1 of 1

**Issuing Authority:**  
**The Carolinas Quality Office**

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**samples.** Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLH8

• Bottom half of box is to list number of bottle

## **Project #**

Matrix	Reagent	Conc.	Comments
1	Hemal	BP4U-125 mL Plastic	Unpreserved (N/A) (Cl-)
2	-	BP3U-250 mL Plastic	Unpreserved (N/A)
3	-	BP2U-500 mL Plastic	Unpreserved (N/A)
4	BP1U-1 liter Plastic	Unpreserved (N/A)	
5	BP4S-125 mL Plastic	H2SO4 (pH < 2) (Cl-)	
6	BP3N-250 mL plastic	HNO3 (pH < 2).	
7	BP4Z-125 mL Plastic	ZN Acetate & NaOH (pH > 9)	
8	BP4C-125 mL Plastic	NaOH (pH > 12) (Cl-)	
9	WGFU-Wide-mouthed Glass jar	Unpreserved	
10	AG1U-1 liter Amber HCl (pH < 2)		
11	AG1H-1 liter Amber HCl (pH < 2)		
12	AG3U-250 mL Amber	Unpreserved (N/A) (Cl-)	
	AG3U-1 liter Amber	H2SO4 (pH < 2)	
	AG5-250 mL Amber	H2SO4 (pH < 2)	
	AG8A(DG3A)-250 mL Amber	NH4Cl (N/A)(Cl-)	
	DG5H-40 mL VOA HCl	(N/A)	
	VG3T-40 mL VOA Na2S2O3	(N/A)	
	VG5U-40 mL VOA Unp	(N/A)	
	DG5P-40 mL VOA H2PO4	(N/A)	
	VOAK (5 vials per ml)-5035	lit (N/A)	
	V/GK (3 vials per ml)-VPH/Gas kit	(N/A)	
	SP5T-125 mL Sterile Plastic	(N/A - lab)	
	SP2T-250 mL Sterile Plastic	(N/A - lab)	
	BP3A-250 mL Plastic	(N/A)2504 (9.3-9.7)	
	AG6U-100 mL Amber Unpreserved	vials (N/A)	
	VSGU-20 mL Scintillation vials	(N/A)	

## **pH Adjustment Log for Preserved Samples**

pH Adjustment Log for Preserved Samples						
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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.  
Out of hold, incorrect preservative, out of temp/incorrect containers.



Document Name:  
**Bottle Identification Form (BIF)**

Document Issued: March 14, 2019

Page 1 of 1

Issuing Authority:  
Carolina's Quality Office

\* Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

**Exceptions:** VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LRR

Bottom half of box is to list number of bottles

**Project #**

Item#	Matrix
BP4U-125 mL Plastic Unpreserved (N/A) (C-)	
BP3U-250 mL Plastic Unpreserved (N/A)	
BP2U-500 mL Plastic Unpreserved (N/A)	
BP1U-1 liter Plastic Unpreserved (N/A)	
BP4S-125 mL Plastic H2SO4 (pH < 2) (C-)	
BP3N-250 mL plastic HNO3 (pH < 2).	
BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	
BP4C-125 mL Plastic NaOH (pH > 12) (C-)	
WGFL-Wide-mouthed Glass Jar Unpreserved	
AG1U-1 liter Amber Unpreserved (N/A) (C-)	
AG1N-1 liter Amber HCl (pH < 2)	
AG3U-250 mL Amber Unpreserved (N/A) (C-)	
AG15-1 liter Amber H2SO4 (pH < 2)	
AG8S-250 mL Amber H2SO4 (pH < 2)	
AG1A(DGSA)-250 mL Amber NH4Cl (N/A)(C-)	
DG3H-40 mL VOA HCl (N/A)	
VG9T-40 mL VOA Na2P2O3 (N/A)	
VGSU-40 mL VOA Ump (N/A)	
DG9P-40 mL VOA H3PO4 (N/A)	
VOAK (6 vials per kit) 5035 Tr (N/A)	
V/V/GK (3 vials per kit) VPH/Gas Kit (N/A)	
SPST-125 mL Sterile Plastic (N/A - lab)	
SP2T-250 mL Sterile Plastic (N/A - lab)	
	BP3A-250 mL Plastic (N/A) 2502 (9.3-9.7)
	AG8L-100 mL Amber Unpreserved vials (N/A)
	AG8L-20 mL Scintillation vials (N/A)
	VSGA-20 mL

## **pH Adjustment Log for Preserved Samples**

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

Document Name:  
Bottle Identification Form (BIF)

Document Issued: March 14, 2019

Page 1 of 1

Document No.:

Issuing Authority:  
Pace Carolinas Quality Office

Form No. 23-213 Rev. 30

\*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHG

\*\*Bottom half of box is to list number of bottle

Project #

Matrix	Item#	BP4U-250 mL Plastic Unpreserved (N/A)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (pH > 9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AGUU-1 liter Amber Unpreserved (N/A) (Cl-)	AGIH-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A[DG3A]-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VGRU-40 mL VOA Up (N/A)	DGR-40 mL VOA H2PO4 (N/A)	VOAK (5 vials per Methyl-sobst's kit (N/A)	V/GK (3 vials per Methyl-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A - lab)	SPST-250 mL Sterile Plastic (N/A - lab)	SP1U	BP4A-250 mL Plastic (NH4)2SO4 (9.3-9.7)	BP4U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)
1	/																											
2	/																											
3	/																											
4	/																											
5	/																											
6																												
7																												
8																												
9																												
10																												
11																												
12																												

### pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot

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.  
Out of hold, incorrect preservative, out of temp, incorrect containers.

March 15, 2020

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

RE: Project: 2628972  
Pace Project No.: 30350269

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between February 14, 2020 and February 18, 2020. 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,



Jacquelyn Collins  
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Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 2628972  
 Pace Project No.: 30350269

### Pace Analytical Services Pennsylvania

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

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

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 2628972  
Pace Project No.: 30350269

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2628972001	YGWA-1I	Water	02/10/20 15:21	02/14/20 10:15
2628972002	YGWA-1D	Water	02/10/20 14:53	02/14/20 10:15
2628972003	YGWA-2I	Water	02/11/20 12:10	02/14/20 10:15
2628972004	YGWA-3I	Water	02/11/20 16:05	02/14/20 10:15
2628972005	YGWA-3D	Water	02/11/20 10:40	02/14/20 10:15
2628972006	YGWA-30I	Water	02/12/20 14:55	02/18/20 09:10
2628972007	YGWA-14S	Water	02/12/20 13:30	02/18/20 09:10
2628972008	YGWC-26S	Water	02/13/20 10:40	02/18/20 09:10
2628972009	YGWC-26I	Water	02/13/20 11:30	02/18/20 09:10
2628972010	DUP-1	Water	02/12/20 00:00	02/18/20 09:10
2628972011	DUP-2	Water	02/13/20 00:00	02/18/20 09:10
2628972012	EB-1-2-13-20	Water	02/13/20 11:00	02/18/20 09:10
2628972013	YGWC-29I	Water	02/13/20 13:02	02/18/20 09:10
2628972014	FB-1-2-13-20	Water	02/13/20 13:30	02/18/20 09:10
2628972015	FB-2-2-13-20	Water	02/13/20 13:40	02/18/20 09:10
2628972016	EB-2-2-13-20	Water	02/13/20 13:45	02/18/20 09:10
2628972017	YGWC-27S	Water	02/13/20 11:50	02/18/20 09:10
2628972018	YGWC-27I	Water	02/13/20 10:25	02/18/20 09:10
2628972019	YGWC-28S	Water	02/13/20 13:45	02/18/20 09:10
2628972020	YGWC-28I	Water	02/13/20 14:50	02/18/20 09:10

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## SAMPLE ANALYTE COUNT

Project: 2628972  
Pace Project No.: 30350269

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2628972001	YGWA-1I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972002	YGWA-1D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972003	YGWA-2I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972004	YGWA-3I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972005	YGWA-3D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972006	YGWA-30I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972007	YGWA-14S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972008	YGWC-26S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972009	YGWC-26I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972010	DUP-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972011	DUP-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972012	EB-1-2-13-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972013	YGWC-29I	EPA 9315	LAL	1	PASI-PA

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## SAMPLE ANALYTE COUNT

Project: 2628972  
Pace Project No.: 30350269

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2628972014	FB-1-2-13-20	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2628972015	FB-2-2-13-20	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972016	EB-2-2-13-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628972017	YGWC-27S	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2628972018	YGWC-27I	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2628972019	YGWC-28S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2628972020	YGWC-28I	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		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: 2628972  
Pace Project No.: 30350269

<b>Sample: YGWA-1I</b>	<b>Lab ID: 2628972001</b>	Collected: 02/10/20 15:21	Received: 02/14/20 10:15	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.460 ± 0.329 (0.552)</b> C:77% T:NA	pCi/L	03/03/20 08:19
Radium-228	EPA 9320	<b>0.786 ± 0.408 (0.726)</b> C:78% T:95%	pCi/L	03/11/20 16:10
Total Radium	Total Radium Calculation	<b>1.25 ± 0.737 (1.28)</b>	pCi/L	03/12/20 11:02
<hr/>				
<b>Sample: YGWA-1D</b>	<b>Lab ID: 2628972002</b>	Collected: 02/10/20 14:53	Received: 02/14/20 10:15	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.714 ± 0.354 (0.471)</b> C:91% T:NA	pCi/L	03/03/20 08:19
Radium-228	EPA 9320	<b>0.693 ± 0.389 (0.713)</b> C:81% T:99%	pCi/L	03/11/20 16:10
Total Radium	Total Radium Calculation	<b>1.41 ± 0.743 (1.18)</b>	pCi/L	03/12/20 11:02
<hr/>				
<b>Sample: YGWA-2I</b>	<b>Lab ID: 2628972003</b>	Collected: 02/11/20 12:10	Received: 02/14/20 10:15	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.476 ± 0.310 (0.488)</b> C:86% T:NA	pCi/L	03/03/20 08:20
Radium-228	EPA 9320	<b>0.341 ± 0.436 (0.930)</b> C:80% T:85%	pCi/L	03/11/20 16:10
Total Radium	Total Radium Calculation	<b>0.817 ± 0.746 (1.42)</b>	pCi/L	03/12/20 11:02
<hr/>				
<b>Sample: YGWA-3I</b>	<b>Lab ID: 2628972004</b>	Collected: 02/11/20 16:05	Received: 02/14/20 10:15	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.851 ± 0.385 (0.434)</b> C:85% T:NA	pCi/L	03/03/20 08:20
Radium-228	EPA 9320	<b>1.00 ± 0.464 (0.788)</b> C:76% T:95%	pCi/L	03/11/20 16:10
Total Radium	Total Radium Calculation	<b>1.85 ± 0.849 (1.22)</b>	pCi/L	03/12/20 11:02
<hr/>				
<b>Sample: YGWA-3D</b>	<b>Lab ID: 2628972005</b>	Collected: 02/11/20 10:40	Received: 02/14/20 10:15	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>1.74 ± 0.555 (0.550)</b> C:97% T:NA	pCi/L	03/03/20 08:20
Radium-228	EPA 9320	<b>2.13 ± 0.654 (0.830)</b> C:79% T:82%	pCi/L	03/11/20 16:10

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628972  
Pace Project No.: 30350269

<b>Sample: YGWA-3D</b>	<b>Lab ID: 2628972005</b>	Collected: 02/11/20 10:40	Received: 02/14/20 10:15	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Total Radium	Total Radium Calculation	<b>3.87 ± 1.21 (1.38)</b>	pCi/L	03/12/20 11:02
				7440-14-4
<b>Sample: YGWA-30I</b>	<b>Lab ID: 2628972006</b>	Collected: 02/12/20 14:55	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.105 ± 0.223 (0.520)</b> C:94% T:NA	pCi/L	03/03/20 08:20
Radium-228	EPA 9320	<b>0.196 ± 0.343 (0.750)</b> C:80% T:97%	pCi/L	03/11/20 16:10
Total Radium	Total Radium Calculation	<b>0.301 ± 0.566 (1.27)</b>	pCi/L	03/12/20 11:02
				7440-14-4
<b>Sample: YGWA-14S</b>	<b>Lab ID: 2628972007</b>	Collected: 02/12/20 13:30	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.565 ± 0.298 (0.394)</b> C:95% T:NA	pCi/L	03/03/20 08:21
Radium-228	EPA 9320	<b>0.500 ± 0.421 (0.849)</b> C:79% T:88%	pCi/L	03/11/20 16:10
Total Radium	Total Radium Calculation	<b>1.07 ± 0.719 (1.24)</b>	pCi/L	03/12/20 11:02
				7440-14-4
<b>Sample: YGWC-26S</b>	<b>Lab ID: 2628972008</b>	Collected: 02/13/20 10:40	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.111 ± 0.184 (0.405)</b> C:83% T:NA	pCi/L	03/03/20 08:21
Radium-228	EPA 9320	<b>0.0666 ± 0.350 (0.799)</b> C:79% T:89%	pCi/L	03/11/20 16:10
Total Radium	Total Radium Calculation	<b>0.178 ± 0.534 (1.20)</b>	pCi/L	03/12/20 11:02
				7440-14-4
<b>Sample: YGWC-26I</b>	<b>Lab ID: 2628972009</b>	Collected: 02/13/20 11:30	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.762 ± 0.383 (0.500)</b> C:76% T:NA	pCi/L	03/03/20 08:21
Radium-228	EPA 9320	<b>1.10 ± 0.474 (0.764)</b> C:80% T:85%	pCi/L	03/11/20 16:11
Total Radium	Total Radium Calculation	<b>1.86 ± 0.857 (1.26)</b>	pCi/L	03/12/20 11:02
				7440-14-4

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628972  
Pace Project No.: 30350269

<b>Sample: DUP-1</b>	<b>Lab ID: 2628972010</b>	Collected: 02/12/20 00:00	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.497 ± 0.311 (0.493)</b> C:92% T:NA	pCi/L	03/03/20 08:21
Radium-228	EPA 9320	<b>0.613 ± 0.439 (0.860)</b> C:79% T:90%	pCi/L	03/11/20 16:11
Total Radium	Total Radium Calculation	<b>1.11 ± 0.750 (1.35)</b>	pCi/L	03/12/20 11:02
<b>Sample: DUP-2</b>	<b>Lab ID: 2628972011</b>	Collected: 02/13/20 00:00	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.366 ± 0.313 (0.598)</b> C:92% T:NA	pCi/L	03/03/20 08:21
Radium-228	EPA 9320	<b>0.174 ± 0.377 (0.834)</b> C:77% T:89%	pCi/L	03/11/20 16:11
Total Radium	Total Radium Calculation	<b>0.540 ± 0.690 (1.43)</b>	pCi/L	03/12/20 11:02
<b>Sample: EB-1-2-13-20</b>	<b>Lab ID: 2628972012</b>	Collected: 02/13/20 11:00	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.213 ± 0.232 (0.466)</b> C:96% T:NA	pCi/L	03/03/20 08:23
Radium-228	EPA 9320	<b>-0.0665 ± 0.265 (0.640)</b> C:79% T:96%	pCi/L	03/11/20 16:11
Total Radium	Total Radium Calculation	<b>0.213 ± 0.497 (1.11)</b>	pCi/L	03/12/20 11:02
<b>Sample: YGWC-29I</b>	<b>Lab ID: 2628972013</b>	Collected: 02/13/20 13:02	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.678 ± 0.222 (0.244)</b> C:89% T:NA	pCi/L	03/03/20 17:19
Radium-228	EPA 9320	<b>0.128 ± 0.370 (0.830)</b> C:79% T:90%	pCi/L	03/11/20 16:11
Total Radium	Total Radium Calculation	<b>0.806 ± 0.592 (1.07)</b>	pCi/L	03/12/20 11:03
<b>Sample: FB-1-2-13-20</b>	<b>Lab ID: 2628972014</b>	Collected: 02/13/20 13:30	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.331 ± 0.164 (0.248)</b> C:99% T:NA	pCi/L	03/03/20 17:19
Radium-228	EPA 9320	<b>0.433 ± 0.411 (0.842)</b> C:78% T:85%	pCi/L	03/11/20 16:11

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628972  
Pace Project No.: 30350269

<b>Sample: FB-1-2-13-20</b>	<b>Lab ID: 2628972014</b>	Collected: 02/13/20 13:30	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Total Radium	Total Radium Calculation	<b>0.764 ± 0.575 (1.09)</b>	pCi/L	03/12/20 11:03
				CAS No. 7440-14-4
				Qual
<b>Sample: FB-2-2-13-20</b>	<b>Lab ID: 2628972015</b>	Collected: 02/13/20 13:40	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.376 ± 0.161 (0.208)</b> C:93% T:NA	pCi/L	03/03/20 17:19
Radium-228	EPA 9320	<b>0.736 ± 0.546 (1.09)</b> C:74% T:91%	pCi/L	03/11/20 16:12
Total Radium	Total Radium Calculation	<b>1.11 ± 0.707 (1.30)</b>	pCi/L	03/12/20 11:03
				CAS No. 7440-14-4
				Qual
<b>Sample: EB-2-2-13-20</b>	<b>Lab ID: 2628972016</b>	Collected: 02/13/20 13:45	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.287 ± 0.156 (0.243)</b> C:93% T:NA	pCi/L	03/03/20 17:19
Radium-228	EPA 9320	<b>0.395 ± 0.430 (0.897)</b> C:75% T:90%	pCi/L	03/11/20 16:12
Total Radium	Total Radium Calculation	<b>0.682 ± 0.586 (1.14)</b>	pCi/L	03/12/20 11:03
				CAS No. 7440-14-4
				Qual
<b>Sample: YGWC-27S</b>	<b>Lab ID: 2628972017</b>	Collected: 02/13/20 11:50	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>0.382 ± 0.194 (0.317)</b> C:95% T:NA	pCi/L	03/03/20 17:19
Radium-228	EPA 9320	<b>0.579 ± 0.401 (0.771)</b> C:77% T:93%	pCi/L	03/11/20 16:12
Total Radium	Total Radium Calculation	<b>0.961 ± 0.595 (1.09)</b>	pCi/L	03/12/20 11:03
				CAS No. 7440-14-4
				Qual
<b>Sample: YGWC-27I</b>	<b>Lab ID: 2628972018</b>	Collected: 02/13/20 10:25	Received: 02/18/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
Radium-226	EPA 9315	<b>3.18 ± 0.596 (0.230)</b> C:95% T:NA	pCi/L	03/03/20 17:19
Radium-228	EPA 9320	<b>1.30 ± 0.533 (0.849)</b> C:75% T:90%	pCi/L	03/11/20 16:12
Total Radium	Total Radium Calculation	<b>4.48 ± 1.13 (1.08)</b>	pCi/L	03/12/20 11:03
				CAS No. 7440-14-4
				Qual

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2628972  
Pace Project No.: 30350269

**Sample: YGWC-28S**      **Lab ID: 2628972019**      Collected: 02/13/20 13:45      Received: 02/18/20 09:10      Matrix: Water

PWS:                          Site ID:                          Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.499 ± 0.184 (0.222)</b> C:97% T:NA	pCi/L	03/03/20 17:19	13982-63-3	
Radium-228	EPA 9320	<b>0.539 ± 0.383 (0.739)</b> C:76% T:94%	pCi/L	03/11/20 16:12	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.04 ± 0.567 (0.961)</b>	pCi/L	03/12/20 11:03	7440-14-4	

**Sample: YGWC-28I**      **Lab ID: 2628972020**      Collected: 02/13/20 14:50      Received: 02/18/20 09:10      Matrix: Water

PWS:                          Site ID:                          Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.412 ± 0.177 (0.244)</b> C:94% T:NA	pCi/L	03/03/20 17:19	13982-63-3	
Radium-228	EPA 9320	<b>0.711 ± 0.480 (0.928)</b> C:76% T:87%	pCi/L	03/11/20 16:12	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.12 ± 0.657 (1.17)</b>	pCi/L	03/12/20 11:03	7440-14-4	

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2628972  
Pace Project No.: 30350269

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QC Batch: 385668 Analysis Method: EPA 9320  
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228  
Associated Lab Samples: 2628972001, 2628972002, 2628972003, 2628972004, 2628972005, 2628972006, 2628972007, 2628972008,  
2628972009, 2628972010, 2628972011, 2628972012

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METHOD BLANK: 1868413 Matrix: Water

Associated Lab Samples: 2628972001, 2628972002, 2628972003, 2628972004, 2628972005, 2628972006, 2628972007, 2628972008,  
2628972009, 2628972010, 2628972011, 2628972012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.411 ± 0.292 (0.553) C:86% T:91%	pCi/L	03/11/20 16:09	

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: 2628972  
 Pace Project No.: 30350269

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QC Batch:	385669	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples: 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020			

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METHOD BLANK: 1868414	Matrix: Water
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Associated Lab Samples: 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020	
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Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.486 ± 0.182 (0.217) C:96% T:NA	pCi/L	03/03/20 17:19	

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

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2628972  
Pace Project No.: 30350269

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QC Batch:	385666	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2628972001, 2628972002, 2628972003, 2628972004, 2628972005, 2628972006, 2628972007, 2628972008, 2628972009, 2628972010, 2628972011, 2628972012		

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METHOD BLANK: 1868412	Matrix: Water
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Associated Lab Samples:	2628972001, 2628972002, 2628972003, 2628972004, 2628972005, 2628972006, 2628972007, 2628972008, 2628972009, 2628972010, 2628972011, 2628972012
-------------------------	---

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.603 ± 0.260 (0.342) C:89% T:NA	pCi/L	03/02/20 19:23	

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: 2628972  
Pace Project No.: 30350269

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QC Batch:	385670	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples: 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020			

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METHOD BLANK: 1868415	Matrix: Water
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Associated Lab Samples: 2628972013, 2628972014, 2628972015, 2628972016, 2628972017, 2628972018, 2628972019, 2628972020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.127 ± 0.308 (0.687) C:77% T:91%	pCi/L	03/11/20 16:12	

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

## REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: 2628972  
Pace Project No.: 30350269

### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

## REPORT OF LABORATORY ANALYSIS

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# Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

Pace Analytical

www.pacealabs.com  
21 days  
2/26/2020

Workorder: 2628972 Workorder Name: PLANT YATES AP-2 - FEB EVENT

State Of Origin: GA

Cert. Needed:  Yes

No

Owner Received Date: 2/12/2020

Results Requested By:

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

WO#: 30350269

RAD 9315

RAD 9320

RAD 9325

RAD 9330

RAD 9335

RAD 9340

RAD 9345

RAD 9350

RAD 9355

RAD 9360

RAD 9365

RAD 9370

RAD 9375

RAD 9380

RAD 9385

RAD 9390

RAD 9395

RAD 9400

RAD 9405

RAD 9410

RAD 9415

RAD 9420

RAD 9425

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RAD 9435

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Samples were sent directly to the Subcontracting Laboratory.

Workorder: 2628972 Workorder Name: PLANT YATES AP-2 - FEB EVENT

State Of Origin: GA

Cert. Needed:  Yes

No

Owner Received Date: 2/12/2020

Results Requested By:

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

WO#: 30350269

RAD 9315

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## Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

PaceAnalytical  
www.pacealabs.com

State Of Origin: GA

Cert. Needed:

Yes

No

Owner Received Date: 2/12/2020

Results Requested By: 2/26/2020

Workorder: 2628972 Workorder Name: PLANT YATES AP-2 - FEB EVENT  
 Kevin Herring Pace Analytical Charlotte  
 9800 Kinney Ave.  
 Suite 100  
 Huntersville, NC 28078  
 Phone (704)875-9092

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

Sample ID	Date Collected	Sample Collected	Sample Type	Sample Description	Sample ID	Date Analyzed	Analyst	HNO3	LAB USE ONLY
20 YGWC-281	PS	2/13/2020 14:50	2628972020	Water	1	2		X	C20
21									
22									
23									
24									
Transfers	Released By	Date/Time	Received By	Date/Time					
1	<i>Pace</i>	2/17/20 17:00	<i>L</i>	2/18/20 9:10					
2									
3									
Cooler Temperature on Receipt	°C	Custody Seal	Y or N	Received on Ice	Y or N	Samples Intact	Y or N		

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

# Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace NC

Project # 4-30350269

Courier:  FedEx  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: 1657 9506 2497

Label	<u>PL</u>
LIMS Login	<u>PL</u>

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

Thermometer Used N/A

Type of Ice: Wet Blue None

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

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# <u>(C)10391</u>	Date and Initials of person examining contents: <u>PL 2-17-20</u>
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.	
Sample Labels match COC: -Includes date/time/ID Matrix:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5. <u>W1</u>	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	
Orthophosphate field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	
Hex Cr Aqueous sample field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	
Organic Samples checked for dechlorination:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16. <u>PL/2</u>	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix					
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>PL</u>	Date/time of preservation
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lot # of added preservative	
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.	
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18.	
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>PL</u>	Date: <u>2-17-20</u>

## Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

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

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

WO# : 30350269

## Pittsburgh Lab Sample Condition Upon Receipt

PM: JAC

Due Date: 03/06/20

CLIENT: PACE\_26\_ATGA

*Pace Analytical*Client Name: Pace NCCourier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_Tracking #: 1657 9506 3368Label PICDIC

LIMS Login

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  noThermometer Used N/AType of Ice: Wet Blue NoneCooler Temperature Observed Temp - °C Correction Factor: - °C Final Temp: - °C

Temp should be above freezing to 6°C

Comments:	pH paper Lot#			Date and initials of person examining contents: <u>PIC 2-18-20</u>
	Yes	No	N/A	
Chain of Custody Present:	/			1.
Chain of Custody Filled Out:	/			2.
Chain of Custody Relinquished:	/			3.
Sampler Name & Signature on COC:	/			4.
Sample Labels match COC: -Includes date/time/ID Matrix:	/			5.
Samples Arrived within Hold Time:	/			6.
Short Hold Time Analysis (<72hr remaining):	/			7.
Rush Turn Around Time Requested:	/			8.
Sufficient Volume:	/			9.
Correct Containers Used: -Pace Containers Used:	/			10.
Containers Intact: <u>PIC 2-18-20</u>	/	/		11. 1 bottle for sample 020 received half split/leg
Orthophosphate field filtered	/			12.
Hex Cr Aqueous sample field filtered	/			13.
Organic Samples checked for dechlorination:	/			14.
Filtered volume received for Dissolved tests			/	15.
All containers have been checked for preservation.	/			16. <u>PIC</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix				
All containers meet method preservation requirements.	/			Initial when completed <u>PIC</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			/	17.
Trip Blank Present:		/		18.
Trip Blank Custody Seals Present			/	
Rad Samples Screened < 0.5 mrem/hr	/			Initial when completed: <u>OK</u> Date: <u>2-18-20</u>

## Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ A check in this box indicates that additional information has been stored in eReports.

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

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



## Quality Control Sample Performance Assessment

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

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment		Test: Ra-226	Analyst: LAL	Date: 3/2/2020	Worklist: 52608	Matrix: DW	Sample Matrix Spike Control Assessment	Sample Collection Date:	MS/MSD 1	MS/MSD 2
MB Sample ID	1868412	MB concentration (pCi/mL):	0.603	MS/MSD Decay Corrected Spike Concentration (pCi/mL):			Sample I.D.: Sample MSD I.D.	Sample I.D.: Sample MSD I.D.		
MB Counting Uncertainty:	0.245	Spike Volume Used in MS (mL):		Spikes Volume Used in MSD (mL):						
MB MDC:	0.342	MS Aliquot (L, g, F):		MS Aliquot Conc.(pCi/L, g, F):						
MB Numerical Performance Indicator:	4.83	MS Target Conc.(pCi/L, g, F):		MS Target Conc. (L, g, F):						
MB Status vs Numerical Indicator:	N/A	MSD Aliquot (L, g, F):		MSD Target Conc. (pCi/L, g, F):						
MB Status vs MDC:	See Comment*	MSD Spike Uncertainty (calculated):		MSD Spike Uncertainty (calculated):						
Laboratory Control Sample Assessment		LCSD (Y or N)?	N	Sample Result Counting Uncertainty (pCi/L, g, F):			Sample Result:	Sample Matrix Spike Result:	Sample Matrix Spike Result:	Sample Matrix Spike Result:
Count Date:	3/3/2020	LCSD2608	LCSD2608	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):			Matrix Spike Result:	Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:
Spike I.D.:	19-093	Decay Corrected Spike Concentration (pCi/mL):	24.050	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):			Matrix Spike Duplicate Result:	MSD Numerical Performance Indicator:	MSD Numerical Performance Indicator:	MSD Numerical Performance Indicator:
Volume Used (mL):	0.10	Volume Used (mL):	0.10	MSD Percent Recovery:			MSD Percent Recovery:	MSD Status vs Numerical Indicator:	MSD Status vs Numerical Indicator:	MSD Status vs Numerical Indicator:
Alliquot Volume (L, g, F):	0.512	Alliquot Volume (L, g, F):	0.512	MSD Status vs Recovery:			MSD Status vs Recovery:	MS Status vs Recovery:	MS Status vs Recovery:	MS Status vs Recovery:
Target Conc. (pCi/L, g, F):	4.695	Target Conc. (pCi/L, g, F):	4.695	MS/MSD Upper % Recovery Limits:			MS/MSD Upper % Recovery Limits:	MS/MSD Lower % Recovery Limits:	MS/MSD Lower % Recovery Limits:	MS/MSD Lower % Recovery Limits:
Uncertainty (Calculated):	0.056	Uncertainty (Calculated):	0.056							
Result (pCi/L, g, F):	4.517	Result (pCi/L, g, F):	4.517							
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.744	Numerical Performance Indicator:	-0.47							
Percent Recovery:	96.22%	Percent Recovery:	96.22%							
Status vs Numerical Indicator:	N/A	Status vs Recovery:	Pass							
Upper % Recovery Limit:	125%	Upper % Recovery Limit:	125%							
Lower % Recovery Limit:	75%	Lower % Recovery Limit:	75%							
Duplicate Sample Assessment		Sample I.D.:	2628973004	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.	Sample I.D.:	2628973004DUP	Sample I.D.:	Sample Matrix Spike Result:	Sample Matrix Spike Result:	Sample Matrix Spike Result:
Duplicate Sample I.D.:	2628973004	Sample Result (pCi/L, g, F):	3.060					Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Result Counting Uncertainty (pCi/L, g, F):	0.623	Sample Duplicate Result (pCi/L, g, F):	2.847					MS/MSD Duplicate Result Counting Uncertainty (pCi/L, g, F):	MS/MSD Duplicate Result Counting Uncertainty (pCi/L, g, F):	MS/MSD Duplicate Result Counting Uncertainty (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):	0.625	Are sample and/or duplicate results below RL?	See Below #					MS/MSD Duplicate Numerical Performance Indicator:	MS/MSD Duplicate Numerical Performance Indicator:	MS/MSD Duplicate Numerical Performance Indicator:
Duplicate Numerical Performance Indicator:	0.473	Duplicate Status vs Numerical Indicator:	0.473					(Based on the Percent Recoveries)	(Based on the Percent Recoveries)	(Based on the Percent Recoveries)
Duplicate Status vs Numerical Indicator:	NA	Duplicate Status vs RPD:	7.20%					MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs Numerical Indicator:
Duplicate Status vs RPD:	Pass	% RPD Limit:	25%					% RPD Limit:	% RPD Limit:	% RPD Limit:

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

Comments:

\*The method blank result is below the reporting limit for this analysis and is acceptable.

13-3-2020  
13-3-2020



## Quality Control Sample Performance Assessment

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

	Test:	Ra-228	Sample Matrix Spike Control Assessment	Sample Collection Date:	MS/MSD 1	MS/MSD 2
Analyst:	LAL			Sample ID: Sample MS. I.D. Sample MSD. I.D.		
Date:	3/2/2020					
Worklist:	52608					
Matrix:	DW					
<b>Method Blank Assessment</b>						
MB Sample ID:	1868442		MS/MSD Decay Corrected Spike Concentration (pCi/mL):			
MB concentration:	0.603		Spike Volume Used in MS (mL):			
M/B Counting Uncertainty:	0.245		Spike Volume Used in MSD (mL):			
MB MDC:	0.342		MS Aliquot (L, g, F):			
MB Numerical Performance Indicator:	4.83		MS Target Conc.(pCi/L, g, F):			
MB Status vs Numerical Indicator:	N/A		MSD Aliquot (L, g, F):			
MB Status vs. MDC:	See Comment*		MSD Target Conc. (pCi/L, g, F):			
<b>Laboratory Control Sample Assessment</b>			MS Spike Uncertainty (calculated):			
LCS(LCSD) (Y or N)?	N		MSD Spike Uncertainty (calculated):			
LCS(LCSD) 08	LCSD08		Sample Result:			
Count Date:	3/3/2020		Sample Result Counting Uncertainty (pCi/L, g, F):			
Spike I.D.:	19-033		Sample Matrix Spike Result:			
Decay Corrected Spike Concentration (pCi/mL):	24.050		Matrix Spike Result Counting Uncertainty (pCi/L, g, F):			
Volume Used (mL):	0.10		Sample Matrix Spike Duplicate Result:			
Aliquot Volume (L, g, F):	0.512		Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):			
Target Conc. (pCi/L, g, F):	4.695		MS Numerical Performance Indicator:			
Uncertainty (Calculated):	0.056		MSD Numerical Performance Indicator:			
Result (pCi/L, g, F):	4.517		MS Percent Recovery:			
LC(LCSD) Counting Uncertainty (pCi/L, g, F):	0.744		MSD Percent Recovery:			
Numerical Performance Indicator:	-0.47		MS Status vs Numerical Indicator:			
Percent Recovery:	96.22%		MS Status vs Recovery:			
Status vs Numerical Indicator:	N/A		MS/MSD Upper % Recovery Limits:			
Status vs Recovery:	Pass		MS/MSD Lower % Recovery Limits:			
Upper % Recovery Limits:	125%					
Lower % Recovery Limits:	75%					
<b>Duplicate Sample Assessment</b>			<b>Matrix Spike/Matrix Spike Duplicate Sample Assessment</b>			
Sample I.D.:	2628973003		Sample I.D.:			
Duplicate Sample I.D.:	2628973003DUP		Sample MS. I.D.:			
Sample Result:	1.224		Sample MSD. I.D.:			
Sample Result Counting Uncertainty (pCi/L, g, F):	0.444		Sample Matrix Spike Result:			
Sample Duplicate Result (pCi/L, g, F):	0.496		Matrix Spike Result Counting Uncertainty (pCi/L, g, F):			
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.335		Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):			
Are sample and/or duplicate results below RL?	See Below ##		Duplicate Numerical Performance Indicator:			
Duplicate Numerical Performance Indicator:	2.565		(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:			
Duplicate Status vs Numerical Indicator:	84.62%		MS/MSD Duplicate Status vs Numerical Indicator:			
Duplicate Status vs RPD:	N/A		MS/MSD Duplicate Status vs RPD:			
Duplicate Status vs RD:	Fail***		% RPD Limit:			
% RPD Limit:	25%					

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

**Comments:**

\*The method blank result is below the reporting limit for this analysis and is acceptable.

\*\*Batch must be re-prepped due to unacceptable precision. - Numerical indicator or

11/3/2020

11/3/2020



## Quality Control Sample Performance Assessment

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

<b>Method Blank Assessment</b>	<table border="1"> <tr> <td style="width: 10%;">Test:</td> <td>Ra-226</td> </tr> <tr> <td>Analyst:</td> <td>LAL</td> </tr> <tr> <td>Date:</td> <td>3/3/2020</td> </tr> <tr> <td>Worklist:</td> <td>52610</td> </tr> <tr> <td>Matrix:</td> <td>DW</td> </tr> </table> <table border="1"> <tr> <td style="width: 10%;">MB Sample ID:</td> <td>1868414</td> </tr> <tr> <td>MB concentration:</td> <td>0.486</td> </tr> <tr> <td>M/B Counting Uncertainty:</td> <td>0.168</td> </tr> <tr> <td>MB MDC:</td> <td>0.217</td> </tr> <tr> <td>MB Numerical Indicator:</td> <td>5.69</td> </tr> <tr> <td>MB Status vs. Numerical Indicator:</td> <td>N/A</td> </tr> </table> <p>See Comment*</p>	Test:	Ra-226	Analyst:	LAL	Date:	3/3/2020	Worklist:	52610	Matrix:	DW	MB Sample ID:	1868414	MB concentration:	0.486	M/B Counting Uncertainty:	0.168	MB MDC:	0.217	MB Numerical Indicator:	5.69	MB Status vs. Numerical Indicator:	N/A												
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<b>Laboratory Control Sample Assessment</b>	<table border="1"> <tr> <td style="width: 10%;">LCSID (Y or N)?</td> <td>N</td> </tr> <tr> <td>Count Date:</td> <td>3/4/2020</td> </tr> <tr> <td>Spike I.D.:</td> <td>LC52810</td> </tr> <tr> <td>Decay Corrected Spike Concentration (pCi/mL):</td> <td>24.050</td> </tr> <tr> <td>Volume Used (mL):</td> <td>0.10</td> </tr> <tr> <td>Aliquot Volume (L, g, F):</td> <td>0.502</td> </tr> <tr> <td>Target Conc. (pCi/L, g, F):</td> <td>4.795</td> </tr> <tr> <td>Uncertainty (Calculated):</td> <td>0.058</td> </tr> <tr> <td>Result (pCi/L, g, F):</td> <td>4.905</td> </tr> <tr> <td>LCS/LCSD Counting Uncertainty (pCi/L, g, F):</td> <td>0.753</td> </tr> <tr> <td>Numerical Performance Indicator:</td> <td>0.29</td> </tr> <tr> <td>Percent Recovery:</td> <td>102.39%</td> </tr> <tr> <td>Status vs Numerical Indicator:</td> <td>N/A</td> </tr> <tr> <td>Percent Recovery:</td> <td>Pass</td> </tr> <tr> <td>Status vs Recovery:</td> <td>125%</td> </tr> <tr> <td>Upper % Recovery Limits:</td> <td>75%</td> </tr> <tr> <td>Lower % Recovery Limits:</td> <td></td> </tr> </table>	LCSID (Y or N)?	N	Count Date:	3/4/2020	Spike I.D.:	LC52810	Decay Corrected Spike Concentration (pCi/mL):	24.050	Volume Used (mL):	0.10	Aliquot Volume (L, g, F):	0.502	Target Conc. (pCi/L, g, F):	4.795	Uncertainty (Calculated):	0.058	Result (pCi/L, g, F):	4.905	LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.753	Numerical Performance Indicator:	0.29	Percent Recovery:	102.39%	Status vs Numerical Indicator:	N/A	Percent Recovery:	Pass	Status vs Recovery:	125%	Upper % Recovery Limits:	75%	Lower % Recovery Limits:	
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## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

- \*The method blank result is below the reporting limit for this analysis and is acceptable.
- \*\*Batch must be re-prepped due to unacceptable precision: - Results < SR n/aC, n/aC 3 acceptable

UAM 314110



## Quality Control Sample Performance Assessment

FaceAnalytical<sup>™</sup>

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

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

<b>Method Blank Assessment</b> <table border="1"> <tr> <td>MB Sample ID:</td> <td>1688414</td> </tr> <tr> <td>MB Concentration:</td> <td>0.486</td> </tr> <tr> <td>MB Counting Uncertainty:</td> <td>0.168</td> </tr> <tr> <td>MB MDC:</td> <td>0.217</td> </tr> <tr> <td>MB Numerical Performance Indicator:</td> <td>5.69</td> </tr> <tr> <td>MB Status vs Numerical Indicator:</td> <td>N/A</td> </tr> <tr> <td>MB Status vs. MDC:</td> <td>See Comment*</td> </tr> </table>		MB Sample ID:	1688414	MB Concentration:	0.486	MB Counting Uncertainty:	0.168	MB MDC:	0.217	MB Numerical Performance Indicator:	5.69	MB Status vs Numerical Indicator:	N/A	MB Status vs. MDC:	See Comment*	<b>Sample Matrix Spike Control Assessment</b> <table border="1"> <tr> <td>MS/MSD Decay Corrected Spike Concentration (pCi/mL):</td> <td></td> </tr> <tr> <td>Spike Volume Used in MS (mL):</td> <td></td> </tr> <tr> <td>Spike Volume Used in MSD (mL):</td> <td></td> </tr> <tr> <td>MS Aliquot (L, g, F):</td> <td></td> </tr> <tr> <td>MS Target Conc. (pCi/L, g, F):</td> <td></td> </tr> <tr> <td>MSD Aliquot (L, g, F):</td> <td></td> </tr> <tr> <td>MSD Target Conc. (pCi/L, g, F):</td> <td></td> </tr> <tr> <td>MS Spike Uncertainty (calculated):</td> <td></td> </tr> <tr> <td>MSD Spike Uncertainty (calculated):</td> <td></td> </tr> <tr> <td>Sample Result Counting Uncertainty (pCi/L, g, F):</td> <td></td> </tr> <tr> <td>Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):</td> <td></td> </tr> <tr> <td>Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):</td> <td></td> </tr> <tr> <td>MS Numerical Performance Indicator:</td> <td></td> </tr> <tr> <td>MSD Numerical Performance Indicator:</td> <td></td> </tr> <tr> <td>MS Percent Recovery:</td> <td></td> </tr> <tr> <td>MSD Percent Recovery:</td> <td></td> </tr> <tr> <td>MS Status vs Numerical Indicator:</td> <td></td> </tr> <tr> <td>MSD Status vs Numerical Indicator:</td> <td></td> </tr> <tr> <td>MS Status vs Recovery:</td> <td></td> </tr> <tr> <td>MS/MSD Upper % Recovery Limits:</td> <td></td> </tr> <tr> <td>MS/MSD Lower % Recovery Limits:</td> <td></td> </tr> </table>	MS/MSD Decay Corrected Spike Concentration (pCi/mL):		Spike Volume Used in MS (mL):		Spike Volume Used in MSD (mL):		MS Aliquot (L, g, F):		MS Target Conc. (pCi/L, g, F):		MSD Aliquot (L, g, F):		MSD Target Conc. (pCi/L, g, F):		MS Spike Uncertainty (calculated):		MSD Spike Uncertainty (calculated):		Sample Result Counting Uncertainty (pCi/L, g, F):		Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		MS Numerical Performance Indicator:		MSD Numerical Performance Indicator:		MS Percent Recovery:		MSD Percent Recovery:		MS Status vs Numerical Indicator:		MSD Status vs Numerical Indicator:		MS Status vs Recovery:		MS/MSD Upper % Recovery Limits:		MS/MSD Lower % Recovery Limits:			
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## Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDc.

Comments:

\*The method blank result is below the reporting limit for this analysis and is acceptable.

Comments:

\*The method blank result is below the reporting limit for this analysis and is acceptable.





# Quality Control Sample Performance Assessment

www.paceanalytical.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228 VAL	Analyst Date: 3/2/2020	Worklist: 52611 WT	Method Blank Assessment	LCSD (Y or N)? Y	LCSD2611 Count Date: 3/11/2020	Laboratory Control Sample Assessment	LCSD2611 Count Date: 3/11/2020	Duplicate Sample Assessment
MB Sample ID: 1868445	MB concentration: 0.127	MB 2 Sigma CSU: 0.308	MB MDC: 0.687	MB Numerical Indicator: 0.81	Spike I.D.: 19-057	Decay Corrected Spike Concentration (pCi/ml): 34.880	Spike I.D.: LCS/LCD	Sample I.D.: LCS52611
MB Status vs Numerical Indicator: Pass	MB Status vs MDC: Pass	Volume Used (mL): 0.10	Aliquot Volume (L, g, F): 0.810	Uncertainty (Calculated): 0.310	34.880	Target Conc. (pCi/L, g, F): 4.304	Sample Result 1 Sigma CSU (pCi/L, g, F): 0.10	Sample Result 1 Sigma CSU (pCi/L, g, F): 0.10
Result (pCi/L, g, F): 3.175	Numerical Performance Indicator: Percent Recovery: 73.78%	Percent Recovery: 3.167	Uncertainty (Calculated): 0.313	0.804	MSD Target Conc. (pCi/L, g, F): 4.345	MSD Duplicate Result 1 Sigma CSU (pCi/L, g, F): 0.803	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): 0.803	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F): 0.788	Numerical Performance Indicator: Status vs Numerical Indicator: Status vs Recovery: Pass	Result (pCi/L, g, F): -2.61	Uncertainty (Calculated): 0.313	-2.68	MSD Numerical Performance Indicator: MS Percent Recovery: 72.88%	MSD Status vs Numerical Indicator: MS Status vs Recovery: Pass	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): 0.803	
Percent Recovery: 73.78%	Status vs Recovery: Pass	Percent Recovery: 3.167	Uncertainty (Calculated): 0.313	73.78%	MSD Status vs Recovery: Pass	MSD Status vs Recovery: Pass	MSD Duplicate Result 2 Sigma CSU (pCi/L, g, F): 0.803	
Numerical Performance Indicator: Status vs Numerical Indicator: Status vs Recovery: Pass	Upper % Recovery Limits: 135%	Numerical Performance Indicator: Status vs Recovery: Pass	Uncertainty (Calculated): 0.313	73.78%	MSD Status vs Recovery: Pass	MSD Status vs Recovery: Pass	MSD Duplicate Result 2 Sigma CSU (pCi/L, g, F): 0.803	
Percent Recovery: 73.78%	Lower % Recovery Limits: 60%	Percent Recovery: 3.167	Uncertainty (Calculated): 0.313	73.78%	MSD Status vs Recovery: Pass	MSD Status vs Recovery: Pass	MSD Duplicate Result 2 Sigma CSU (pCi/L, g, F): 0.803	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Pass	(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD: Pass	Duplicate Numerical Performance Indicator: 0.015	Duplicate Numerical Performance Indicator: 0.015	1.23%	Duplicate Numerical Performance Indicator: 0.015	Duplicate Numerical Performance Indicator: 0.015	Duplicate Numerical Performance Indicator: 0.015	
Duplicate Status vs Numerical Indicator: Pass	Duplicate Status vs Numerical Indicator: Pass	Duplicate Status vs RPD: 36%	Duplicate Status vs RPD: 36%	Pass	Duplicate Status vs RPD: 36%	Duplicate Status vs RPD: 36%	Duplicate Status vs RPD: 36%	
# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.				# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.				
Comments:				Comments:				

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**Plant Yates Ash Pond-2**

**Scan Even February 2020**

## **Georgia Power Company – Plant Yates Ash Pond-2**

### **Quality Control Review of Analytical Data – February 2020**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Atlanta, Asheville, and Pittsburgh for groundwater samples collected at Plant Yates AP-2 between February 10, 2020 and February 13, 2020. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Determination of Inorganic Anions (USEPA Method 300.0), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and COCs were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## **DATA QUALITY OBJECTIVES**

**Laboratory Precision:** Laboratory goals for precision were met.

**Field Precision:** Field goals for precision were met, with the exceptions of Barium and Radium-228 on YGWC-27S (2628972017) and DUP-2 (2628972011) as described in the qualifications section below.

**Accuracy:** Laboratory goals for accuracy were met.

**Detection Limits:** Project goals for detection limits were met.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## **QUALIFICATIONS**

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**ND:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples YGWC-27S (2628972017) and DUP-2 (2628972011) were qualified as estimated (J) for Barium and Radium-228 as the respective field relative percent differences (RPDs) exceeded QC criteria (140.35% and 107.57% above limit of 25).

- Certain arsenic results in SDG 2628972 were qualified as non-detect (ND) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, the method detection limit (MDL) was raised to the sample result as part of the qualification process.
- Certain radium results in SDG 2628972 were qualified as non-detect (ND) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, the minimum detectable concentration (MDC) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from the Plant Yates Ash Pond-2 sampled between February 10, 2020 and February 13, 2020 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## REFERENCES

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1  
 Georgia Power Company – Plant Yates Ash Pond-2  
 Sample Summary Table – Scan Event February 2020

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses		
						Metals (6020B, 7470A)	Anions (300.0)	Radium-226/-228 (9315, 9320)
28972	YGWA-1I	2/10/2020	2628972001	GW		X	X	X
28972	YGWA-1D	2/10/2020	2628972002	GW		X	X	X
28972	YGWA-2I	2/11/2020	2628972003	GW		X	X	X
28972	YGWA-3I	2/11/2020	2628972004	GW		X	X	X
28972	YGWA-3D	2/12/2020	2628972005	GW		X	X	X
28972	YGWA-30I	2/12/2020	2628972006	GW		X	X	X
28972	YGWA-14S	2/12/2020	2628972007	GW		X	X	X
28972	YGWC-26S	2/13/2020	2628972008	GW		X	X	X
28972	YGWC-26I	2/13/2020	2628972009	GW		X	X	X
28972	DUP-1	2/12/2020	2628972010	GW	FD (YGWA-14S)	X	X	X
28972	DUP-2	2/13/2020	2628972011	GW	FD (YGWC-27S)	X	X	X
28972	EB-1-2-13-20	2/13/2020	2628972012	WQ	EB	X	X	X
28972	YGWC-29I	2/13/2020	2628972013	GW		X	X	X
28972	FB-1-2-13-20	2/13/2020	2628972014	WQ	FB	X	X	X
28972	FB-2-2-13-20	2/13/2020	2628972015	WQ	FB	X	X	X
28972	EB-2-2-13-20	2/13/2020	2628972016	WQ	EB	X	X	X
28972	YGWC-27S	2/13/2020	2628972017	GW		X	X	X
28972	YGWC-27I	2/13/2020	2628972018	GW		X	X	X
28972	YGWC-28S	2/13/2020	2628972019	GW		X	X	X
28972	YGWC-28I	2/13/2020	2628972020	GW		X	X	X

Abbreviations:

EB – Equipment Blank  
 FB – Field Blank  
 FD – Field Duplicate  
 GW – Groundwater  
 QC – Quality Control  
 TDS – Total Dissolved Solids  
 WQ – Water Quality Control

TABLE 2  
 Georgia Power Company – Plant Yates Ash Pond-2  
 Qualifier Summary Table – Scan Event February 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
28972	YGWC-27S	Barium			J	RPD exceeds field goal
28972	DUP-2	Barium			J	RPD exceeds field goal
28972	YGWC-27S	Radium-228			J	RPD exceeds field goal
28972	DUP-2	Radium-228			J	RPD exceeds field goal
28972	YGWA-1I	Arsenic		0.0005	ND	Blank detection
28972	YGWA-1D	Arsenic		0.0026	ND	Blank detection
28972	YGWA-2I	Arsenic		0.0044	ND	Blank detection
28972	YGWA-3I	Arsenic		0.0041	ND	Blank detection
28972	YGWA-3D	Arsenic		0.0038	ND	Blank detection
28972	YGWA-30I	Arsenic		0.0032	ND	Blank detection
28972	YGWA-1I	Radium-226		0.552	ND	Blank detection
28972	YGWA-1I	Radium-228		0.726	ND	Blank detection
28972	YGWA-1D	Radium-226		0.471	ND	Blank detection
28972	YGWA-1D	Radium-228		0.713	ND	Blank detection
28972	YGWA-2I	Radium-226		0.488	ND	Blank detection
28972	YGWA-2I	Radium-228		0.930	ND	Blank detection
28972	YGWA-3I	Radium-226		0.434	ND	Blank detection
28972	YGWA-3I	Radium-228		0.788	ND	Blank detection
28972	YGWA-3D	Radium-226		0.550	ND	Blank detection
28972	YGWA-3D	Radium-228		0.830	ND	Blank detection
28972	YGWA-30I	Radium-226		0.520	ND	Blank detection
28972	YGWA-30I	Radium-228		0.750	ND	Blank detection
28972	YGWA-14S	Radium-226		0.394	ND	Blank detection
28972	YGWA-14S	Radium-228		0.849	ND	Blank detection
28972	YGWC-26S	Radium-226		0.405	ND	Blank detection
28972	YGWC-26S	Radium-228		0.799	ND	Blank detection
28972	YGWC-26I	Radium-226		0.500	ND	Blank detection
28972	YGWC-26I	Radium-228		0.764	ND	Blank detection
28972	YGWC-29I	Radium-226		0.244	ND	Blank detection
28972	YGWC-29I	Radium-228		0.830	ND	Blank detection

Abbreviations:

MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group

Qualifiers:

J – Estimated Result  
 ND – Non-Detect Result

TABLE 2 (continued)

## Georgia Power Company – Plant Yates Ash Pond-2

## Qualifier Summary Table – Scan Event February 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
28972	YGWC-27S	Radium-226		0.317	ND	Blank detection
28972	YGWC-27S	Radium-228		0.771	ND	Blank detection
28972	YGWC-27I	Radium-226		0.230	ND	Blank detection
28972	YGWC-27I	Radium-228		0.849	ND	Blank detection
28972	YGWC-28S	Radium-226		0.222	ND	Blank detection
28972	YGWC-28S	Radium-228		0.739	ND	Blank detection
28972	YGWC-28I	Radium-226		0.244	ND	Blank detection
28972	YGWC-28I	Radium-228		0.928	ND	Blank detection

## Abbreviations:

MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group

## Qualifiers:

J – Estimated Result  
 ND – Non-Detect Result

**March 2020**

Semiannual Event



April 08, 2020

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

RE: Project: PLANT YATES AP-2  
Pace Project No.: 2630320

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 20, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

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

This report was revised 4/8/20 to correct a reporting error for sample DUP-1.

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: Monte Jones, ACC  
Kristen Jurinko  
Matt Malone, Atlantic Coast Consulting  
Betsy McDaniel, Atlantic Coast Consulting  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.  
Ryan Walker



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: PLANT YATES AP-2  
Pace Project No.: 2630320

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### 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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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: PLANT YATES AP-2  
Pace Project No.: 2630320

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630320001	YGWA-1I	Water	03/18/20 15:37	03/20/20 14:10
2630320002	YGWA-1D	Water	03/19/20 10:33	03/20/20 14:10
2630320003	YGWA-2I	Water	03/19/20 12:37	03/20/20 14:10
2630320004	YGWA-3I	Water	03/19/20 11:00	03/20/20 14:10
2630320005	YGWA-3D	Water	03/19/20 12:10	03/20/20 14:10
2630320006	YGWA-14S	Water	03/18/20 15:50	03/20/20 14:10
2630320007	YGWA-30I	Water	03/19/20 14:20	03/20/20 14:10
2630320008	EB-1-3-19-20	Water	03/19/20 13:15	03/20/20 14:10
2630320009	FB-1-3-19-20	Water	03/19/20 15:15	03/20/20 14:10
2630320011	YGWC-26S	Water	03/19/20 16:47	03/20/20 14:10
2630320012	YGWC-26I	Water	03/20/20 10:47	03/20/20 14:10
2630320013	YGWC-27S	Water	03/20/20 12:00	03/20/20 14:10
2630320014	YGWC-27I	Water	03/20/20 12:05	03/20/20 14:10
2630320015	YGWC-28S	Water	03/19/20 14:55	03/20/20 14:10
2630320016	YGWC-28I	Water	03/19/20 16:00	03/20/20 14:10
2630320017	YGWC-29I	Water	03/20/20 10:12	03/20/20 14:10
2630320018	EB-2-3-19-20	Water	03/19/20 13:15	03/20/20 14:10
2630320019	FB-2-3-19-20	Water	03/19/20 11:15	03/20/20 14:10
2630320020	DUP-2	Water	03/20/20 00:00	03/20/20 14:10
2630255009	DUP-1	Water	03/18/20 00:00	03/20/20 14:10

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: PLANT YATES AP-2  
Pace Project No.: 2630320

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630320001	YGWA-1I	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320002	YGWA-1D	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320003	YGWA-2I	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320004	YGWA-3I	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320005	YGWA-3D	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320006	YGWA-14S	EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320007	YGWA-30I	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320008	EB-1-3-19-20	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320009	FB-1-3-19-20	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630320011	YGWC-26S	EPA 6010D	KLH	1	PASI-GA

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: PLANT YATES AP-2  
Pace Project No.: 2630320

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630320012	YGWC-26I	EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630320013	YGWC-27S	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630320014	YGWC-27I	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630320015	YGWC-28S	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630320016	YGWC-28I	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630320017	YGWC-29I	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630320018	EB-2-3-19-20	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630320019	FB-2-3-19-20	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
2630320020	DUP-2	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA

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## SAMPLE ANALYTE COUNT

Project: PLANT YATES AP-2  
Pace Project No.: 2630320

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630255009	DUP-1	SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	13	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville

PASI-GA = Pace Analytical Services - Atlanta, GA

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## SUMMARY OF DETECTION

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>2630320001</b>	<b>YGWA-1I</b>					
EPA 6010D	Field pH	6.19	Std. Units	03/23/20 09:08		
EPA 6020B	Calcium	2.1	mg/L	1.0 03/25/20 17:06		
EPA 6020B	Antimony	0.00040J	mg/L	0.0030 03/26/20 18:06	B	
EPA 6020B	Barium	0.0084J	mg/L	0.010 03/26/20 18:06		
EPA 6020B	Boron	0.0087J	mg/L	0.10 03/26/20 18:06		
EPA 6020B	Chromium	0.00044J	mg/L	0.010 03/26/20 18:06		
EPA 6020B	Cobalt	0.00087J	mg/L	0.0050 03/26/20 18:06		
EPA 6020B	Lithium	0.0024J	mg/L	0.030 03/26/20 18:06		
EPA 6020B	Molybdenum	0.0056J	mg/L	0.010 03/26/20 18:06		
SM 2540C	Total Dissolved Solids	35.0	mg/L	10.0 03/23/20 18:14		
EPA 300.0 Rev 2.1 1993	Chloride	1.4	mg/L	1.0 03/27/20 09:54		
EPA 300.0 Rev 2.1 1993	Sulfate	5.3	mg/L	1.0 03/27/20 09:54		
<b>2630320002</b>	<b>YGWA-1D</b>					
EPA 6010D	Field pH	7.03	Std. Units	03/23/20 09:08		
EPA 6020B	Calcium	15.0	mg/L	1.0 03/25/20 17:10		
EPA 6020B	Arsenic	0.00095J	mg/L	0.0050 03/26/20 18:12		
EPA 6020B	Barium	0.0076J	mg/L	0.010 03/26/20 18:12		
EPA 6020B	Boron	0.0085J	mg/L	0.10 03/26/20 18:12		
EPA 6020B	Chromium	0.00084J	mg/L	0.010 03/26/20 18:12		
EPA 6020B	Lead	0.00012J	mg/L	0.0050 03/26/20 18:12		
EPA 6020B	Lithium	0.013J	mg/L	0.030 03/26/20 18:12		
EPA 6020B	Molybdenum	0.0088J	mg/L	0.010 03/26/20 18:12		
SM 2540C	Total Dissolved Solids	116	mg/L	10.0 03/24/20 14:10		
EPA 300.0 Rev 2.1 1993	Chloride	1.1	mg/L	1.0 03/27/20 10:08		
EPA 300.0 Rev 2.1 1993	Fluoride	0.064J	mg/L	0.30 03/27/20 10:08		
EPA 300.0 Rev 2.1 1993	Sulfate	10	mg/L	1.0 03/27/20 10:08		
<b>2630320003</b>	<b>YGWA-2I</b>					
EPA 6010D	Field pH	7.22	Std. Units	03/23/20 09:08		
EPA 6020B	Calcium	27.4	mg/L	1.0 03/25/20 17:20		
EPA 6020B	Antimony	0.00030J	mg/L	0.0030 03/26/20 18:18	B	
EPA 6020B	Arsenic	0.00066J	mg/L	0.0050 03/26/20 18:18		
EPA 6020B	Barium	0.0036J	mg/L	0.010 03/26/20 18:18		
EPA 6020B	Boron	0.0073J	mg/L	0.10 03/26/20 18:18		
EPA 6020B	Chromium	0.00048J	mg/L	0.010 03/26/20 18:18		
EPA 6020B	Lithium	0.0022J	mg/L	0.030 03/26/20 18:18		
EPA 6020B	Molybdenum	0.0046J	mg/L	0.010 03/26/20 18:18		
SM 2540C	Total Dissolved Solids	148	mg/L	10.0 03/24/20 14:10		
EPA 300.0 Rev 2.1 1993	Chloride	0.97J	mg/L	1.0 03/27/20 10:23		
EPA 300.0 Rev 2.1 1993	Fluoride	0.093J	mg/L	0.30 03/27/20 10:23		
EPA 300.0 Rev 2.1 1993	Sulfate	12.4	mg/L	1.0 03/27/20 10:23		
<b>2630320004</b>	<b>YGWA-3I</b>					
EPA 6010D	Field pH	7.31	Std. Units	03/23/20 09:08		
EPA 6020B	Calcium	21.9	mg/L	1.0 03/25/20 17:24		
EPA 6020B	Barium	0.0029J	mg/L	0.010 03/26/20 18:38		
EPA 6020B	Boron	0.0053J	mg/L	0.10 03/26/20 18:38		
EPA 6020B	Lithium	0.014J	mg/L	0.030 03/26/20 18:38		

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Lab Sample ID	Client Sample ID						
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers	
<b>2630320004</b>	<b>YGWA-3I</b>						
EPA 6020B	Molybdenum	0.0043J	mg/L	0.010	03/26/20 18:38		
SM 2540C	Total Dissolved Solids	148	mg/L	10.0	03/24/20 14:10	D6	
EPA 300.0 Rev 2.1 1993	Chloride	1.1	mg/L	1.0	03/27/20 10:37		
EPA 300.0 Rev 2.1 1993	Fluoride	0.11J	mg/L	0.30	03/27/20 10:37		
EPA 300.0 Rev 2.1 1993	Sulfate	12.9	mg/L	1.0	03/27/20 10:37		
<b>2630320005</b>	<b>YGWA-3D</b>						
EPA 6010D	Field pH	7.65	Std. Units		03/23/20 09:08		
EPA 6020B	Calcium	31.5	mg/L	1.0	03/25/20 17:27		
EPA 6020B	Antimony	0.00064J	mg/L	0.0030	03/26/20 18:44	B	
EPA 6020B	Barium	0.0072J	mg/L	0.010	03/26/20 18:44		
EPA 6020B	Boron	0.0073J	mg/L	0.10	03/26/20 18:44		
EPA 6020B	Lead	0.00017J	mg/L	0.0050	03/26/20 18:44		
EPA 6020B	Lithium	0.023J	mg/L	0.030	03/26/20 18:44		
EPA 6020B	Molybdenum	0.013	mg/L	0.010	03/26/20 18:44		
SM 2540C	Total Dissolved Solids	146	mg/L	10.0	03/24/20 14:11		
EPA 300.0 Rev 2.1 1993	Chloride	1.2	mg/L	1.0	03/27/20 10:52		
EPA 300.0 Rev 2.1 1993	Fluoride	0.51	mg/L	0.30	03/27/20 10:52		
EPA 300.0 Rev 2.1 1993	Sulfate	9.0	mg/L	1.0	03/27/20 10:52		
<b>2630320006</b>	<b>YGWA-14S</b>						
EPA 6010D	Field pH	5.38	Std. Units		03/23/20 09:08		
EPA 6020B	Calcium	1.1	mg/L	1.0	03/25/20 17:31		
EPA 6020B	Barium	0.0076J	mg/L	0.010	03/26/20 18:50		
EPA 6020B	Beryllium	0.00021J	mg/L	0.0030	03/26/20 18:50		
EPA 6020B	Boron	0.020J	mg/L	0.10	03/26/20 18:50		
SM 2540C	Total Dissolved Solids	57.0	mg/L	10.0	03/24/20 14:08		
EPA 300.0 Rev 2.1 1993	Chloride	5.2	mg/L	1.0	03/27/20 11:06		
EPA 300.0 Rev 2.1 1993	Sulfate	8.1	mg/L	1.0	03/27/20 11:06		
<b>2630320007</b>	<b>YGWA-30I</b>						
EPA 6010D	Field pH	6.00	Std. Units		03/23/20 09:08		
EPA 6020B	Calcium	1.2	mg/L	1.0	03/26/20 12:39		
EPA 6020B	Barium	0.0074J	mg/L	0.010	03/26/20 18:55		
EPA 6020B	Boron	0.0052J	mg/L	0.10	03/26/20 18:55		
EPA 6020B	Cobalt	0.014	mg/L	0.0050	03/26/20 18:55		
EPA 6020B	Lithium	0.0012J	mg/L	0.030	03/26/20 18:55		
SM 2540C	Total Dissolved Solids	47.0	mg/L	10.0	03/24/20 14:11		
EPA 300.0 Rev 2.1 1993	Chloride	1.8	mg/L	1.0	03/27/20 11:21		
EPA 300.0 Rev 2.1 1993	Sulfate	1.6	mg/L	1.0	03/27/20 11:21		
<b>2630320009</b>	<b>FB-1-3-19-20</b>						
EPA 6020B	Boron	0.0050J	mg/L	0.10	03/27/20 16:15		
EPA 6020B	Thallium	0.000079J	mg/L	0.0010	03/27/20 16:15		
<b>2630320011</b>	<b>YGWC-26S</b>						
EPA 6010D	Field pH	5.46	Std. Units		03/23/20 09:08		
EPA 6020B	Calcium	13.0	mg/L	1.0	03/26/20 13:04		
EPA 6020B	Antimony	0.0017J	mg/L	0.0030	03/27/20 16:43	B	

## REPORT OF LABORATORY ANALYSIS

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## SUMMARY OF DETECTION

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>2630320011</b>	<b>YGWC-26S</b>					
EPA 6020B	Barium	0.027	mg/L	0.010	03/27/20 16:43	
EPA 6020B	Beryllium	0.00012J	mg/L	0.0030	03/27/20 16:43	
EPA 6020B	Boron	0.73	mg/L	0.10	03/27/20 16:43	
EPA 6020B	Chromium	0.0018J	mg/L	0.010	03/27/20 16:43	
EPA 6020B	Cobalt	0.0021J	mg/L	0.0050	03/27/20 16:43	
EPA 6020B	Lead	0.00010J	mg/L	0.0050	03/27/20 16:43	
EPA 6020B	Thallium	0.000055J	mg/L	0.0010	03/27/20 16:43	
SM 2540C	Total Dissolved Solids	194	mg/L	10.0	03/24/20 14:11	
EPA 300.0 Rev 2.1 1993	Chloride	15.4	mg/L	1.0	03/27/20 13:31	
EPA 300.0 Rev 2.1 1993	Sulfate	99.4	mg/L	1.0	03/27/20 13:31	
<b>2630320012</b>	<b>YGWC-26I</b>					
	Field pH	5.94	Std. Units		03/23/20 09:08	
EPA 6010D	Calcium	17.1	mg/L	1.0	03/26/20 13:14	
EPA 6020B	Antimony	0.00059J	mg/L	0.0030	03/27/20 16:49	B
EPA 6020B	Barium	0.063	mg/L	0.010	03/27/20 16:49	
EPA 6020B	Boron	0.94	mg/L	0.10	03/27/20 16:49	
EPA 6020B	Chromium	0.00090J	mg/L	0.010	03/27/20 16:49	
EPA 6020B	Lead	0.000059J	mg/L	0.0050	03/27/20 16:49	
EPA 6020B	Lithium	0.0072J	mg/L	0.030	03/27/20 16:49	
EPA 6020B	Selenium	0.0019J	mg/L	0.010	03/27/20 16:49	
SM 2540C	Total Dissolved Solids	211	mg/L	10.0	03/24/20 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	17.7	mg/L	1.0	03/27/20 13:46	
EPA 300.0 Rev 2.1 1993	Fluoride	0.060J	mg/L	0.30	03/27/20 13:46	
EPA 300.0 Rev 2.1 1993	Sulfate	84.7	mg/L	1.0	03/27/20 13:46	
<b>2630320013</b>	<b>YGWC-27S</b>					
	Field pH	6.18	Std. Units		03/23/20 09:08	
EPA 6010D	Calcium	42.1	mg/L	1.0	03/26/20 13:17	
EPA 6020B	Antimony	0.00030J	mg/L	0.0030	03/27/20 16:55	B
EPA 6020B	Barium	0.095	mg/L	0.010	03/27/20 16:55	
EPA 6020B	Boron	1.4	mg/L	0.10	03/27/20 16:55	
EPA 6020B	Chromium	0.00050J	mg/L	0.010	03/27/20 16:55	
EPA 6020B	Cobalt	0.0022J	mg/L	0.0050	03/27/20 16:55	
EPA 6020B	Lead	0.000085J	mg/L	0.0050	03/27/20 16:55	
EPA 6020B	Thallium	0.00011J	mg/L	0.0010	03/27/20 16:55	
SM 2540C	Total Dissolved Solids	182	mg/L	10.0	03/24/20 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	17.7	mg/L	1.0	03/27/20 14:00	
EPA 300.0 Rev 2.1 1993	Fluoride	0.097J	mg/L	0.30	03/27/20 14:00	
EPA 300.0 Rev 2.1 1993	Sulfate	21.1	mg/L	1.0	03/27/20 14:00	
<b>2630320014</b>	<b>YGWC-27I</b>					
	Field pH	6.32	Std. Units		03/23/20 09:08	
EPA 6010D	Calcium	30.3	mg/L	1.0	03/26/20 13:21	
EPA 6020B	Antimony	0.00033J	mg/L	0.0030	03/27/20 17:44	B
EPA 6020B	Arsenic	0.00042J	mg/L	0.0050	03/27/20 17:44	
EPA 6020B	Barium	0.062	mg/L	0.010	03/27/20 17:44	
EPA 6020B	Beryllium	0.00023J	mg/L	0.0030	03/27/20 17:44	
EPA 6020B	Boron	2.1	mg/L	0.10	03/27/20 17:44	

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## SUMMARY OF DETECTION

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>2630320014</b>	<b>YGWC-27I</b>					
EPA 6020B	Cobalt	0.014	mg/L	0.0050	03/27/20 17:44	
EPA 6020B	Lithium	0.0091J	mg/L	0.030	03/27/20 17:44	
EPA 6020B	Molybdenum	0.0014J	mg/L	0.010	03/27/20 17:44	
SM 2540C	Total Dissolved Solids	195	mg/L	10.0	03/24/20 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	13.0	mg/L	1.0	03/27/20 14:15	
EPA 300.0 Rev 2.1 1993	Sulfate	5.2	mg/L	1.0	03/27/20 14:15	
<b>2630320015</b>	<b>YGWC-28S</b>					
EPA 6010D	Field pH	6.98	Std. Units		03/23/20 09:08	
EPA 6020B	Calcium	30.4	mg/L	1.0	03/26/20 13:24	
EPA 6020B	Arsenic	0.00051J	mg/L	0.0050	03/27/20 17:50	
EPA 6020B	Barium	0.20	mg/L	0.010	03/27/20 17:50	
EPA 6020B	Boron	2.5	mg/L	0.10	03/27/20 17:50	
EPA 6020B	Chromium	0.00049J	mg/L	0.010	03/27/20 17:50	
EPA 6020B	Cobalt	0.00093J	mg/L	0.0050	03/27/20 17:50	
EPA 6020B	Lead	0.000075J	mg/L	0.0050	03/27/20 17:50	
SM 2540C	Total Dissolved Solids	202	mg/L	10.0	03/24/20 14:12	
EPA 300.0 Rev 2.1 1993	Chloride	18.1	mg/L	1.0	03/27/20 14:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.16J	mg/L	0.30	03/27/20 14:29	
EPA 300.0 Rev 2.1 1993	Sulfate	1.7	mg/L	1.0	03/27/20 14:29	
<b>2630320016</b>	<b>YGWC-28I</b>					
EPA 6010D	Field pH	7.01	Std. Units		03/23/20 09:08	
EPA 6020B	Calcium	37.3	mg/L	1.0	03/26/20 13:28	
EPA 6020B	Barium	0.089	mg/L	0.010	03/27/20 17:56	
EPA 6020B	Boron	2.4	mg/L	0.10	03/27/20 17:56	
EPA 6020B	Cadmium	0.00016J	mg/L	0.0025	03/27/20 17:56	
EPA 6020B	Lithium	0.0070J	mg/L	0.030	03/27/20 17:56	
EPA 6020B	Molybdenum	0.0014J	mg/L	0.010	03/27/20 17:56	
SM 2540C	Total Dissolved Solids	212	mg/L	10.0	03/24/20 14:12	
EPA 300.0 Rev 2.1 1993	Chloride	16.0	mg/L	1.0	03/27/20 14:44	
EPA 300.0 Rev 2.1 1993	Fluoride	0.070J	mg/L	0.30	03/27/20 14:44	
EPA 300.0 Rev 2.1 1993	Sulfate	9.1	mg/L	1.0	03/27/20 14:44	
<b>2630320017</b>	<b>YGWC-29I</b>					
EPA 6010D	Field pH	6.17	Std. Units		03/23/20 09:08	
EPA 6020B	Calcium	12.7	mg/L	1.0	03/26/20 13:31	
EPA 6020B	Barium	0.057	mg/L	0.010	03/27/20 18:01	
EPA 6020B	Boron	0.80	mg/L	0.10	03/27/20 18:01	
EPA 6020B	Cadmium	0.00022J	mg/L	0.0025	03/27/20 18:01	
EPA 6020B	Lithium	0.0051J	mg/L	0.030	03/27/20 18:01	
SM 2540C	Total Dissolved Solids	137	mg/L	10.0	03/24/20 14:23	
EPA 300.0 Rev 2.1 1993	Chloride	11.3	mg/L	1.0	03/27/20 14:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.057J	mg/L	0.30	03/27/20 14:58	
EPA 300.0 Rev 2.1 1993	Sulfate	33.0	mg/L	1.0	03/27/20 14:58	
<b>2630320018</b>	<b>EB-2-3-19-20</b>					
EPA 6020B	Boron	0.0096J	mg/L	0.10	03/27/20 18:07	

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## SUMMARY OF DETECTION

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>2630320019</b>	<b>FB-2-3-19-20</b>					
EPA 6020B	Boron	0.0070J	mg/L	0.10	03/27/20 18:13	
<b>2630320020</b>	<b>DUP-2</b>					
EPA 6010D	Calcium	17.2	mg/L	1.0	03/26/20 13:42	
EPA 6020B	Barium	0.062	mg/L	0.010	03/27/20 18:18	
EPA 6020B	Boron	0.92	mg/L	0.10	03/27/20 18:18	
EPA 6020B	Chromium	0.00093J	mg/L	0.010	03/27/20 18:18	
EPA 6020B	Lead	0.000071J	mg/L	0.0050	03/27/20 18:18	
EPA 6020B	Lithium	0.0071J	mg/L	0.030	03/27/20 18:18	
EPA 6020B	Selenium	0.0022J	mg/L	0.010	03/27/20 18:18	
SM 2540C	Total Dissolved Solids	178	mg/L	10.0	03/24/20 14:24	
EPA 300.0 Rev 2.1 1993	Chloride	17.0	mg/L	1.0	03/26/20 16:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.071J	mg/L	0.30	03/26/20 16:29	
EPA 300.0 Rev 2.1 1993	Sulfate	83.5	mg/L	1.0	03/26/20 16:29	
<b>2630255009</b>	<b>DUP-1</b>					
EPA 6010D	Calcium	1.1	mg/L	1.0	03/25/20 16:59	
EPA 6020B	Barium	0.0080J	mg/L	0.010	03/26/20 17:55	
EPA 6020B	Beryllium	0.00020J	mg/L	0.0030	03/26/20 17:55	
EPA 6020B	Boron	0.033J	mg/L	0.10	03/26/20 17:55	
EPA 6020B	Selenium	0.0015J	mg/L	0.010	03/26/20 17:55	
SM 2540C	Total Dissolved Solids	42.0	mg/L	10.0	03/23/20 18:14	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	03/26/20 17:13	
EPA 300.0 Rev 2.1 1993	Sulfate	9.9	mg/L	1.0	03/26/20 17:13	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWA-11		Lab ID: 2630320001		Collected: 03/18/20 15:37		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	6.19	Std. Units			1			03/23/20 09:08	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	2.1	mg/L	1.0	0.14	1	03/24/20 18:00	03/25/20 17:06	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00040J	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 18:06	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 18:06	7440-38-2	
Barium	0.0084J	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 18:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 18:06	7440-41-7	
Boron	0.0087J	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 18:06	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 18:06	7440-43-9	
Chromium	0.00044J	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 18:06	7440-47-3	
Cobalt	0.00087J	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 18:06	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 18:06	7439-92-1	
Lithium	0.0024J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 18:06	7439-93-2	
Molybdenum	0.0056J	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 18:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 18:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 18:06	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	35.0	mg/L	10.0	10.0	1			03/23/20 18:14	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	1.4	mg/L	1.0	0.60	1			03/27/20 09:54	16887-00-6
Fluoride	ND	mg/L	0.30	0.050	1			03/27/20 09:54	16984-48-8
Sulfate	5.3	mg/L	1.0	0.50	1			03/27/20 09:54	14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWA-1D		Lab ID: 2630320002		Collected: 03/19/20 10:33		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	7.03	Std. Units			1				03/23/20 09:08
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	15.0	mg/L	1.0	0.14	1	03/24/20 18:00	03/25/20 17:10	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 18:12	7440-36-0	
Arsenic	0.00095J	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 18:12	7440-38-2	
Barium	0.0076J	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 18:12	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 18:12	7440-41-7	
Boron	0.0085J	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 18:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 18:12	7440-43-9	
Chromium	0.00084J	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 18:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 18:12	7440-48-4	
Lead	0.00012J	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 18:12	7439-92-1	
Lithium	0.013J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 18:12	7439-93-2	
Molybdenum	0.0088J	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 18:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 18:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 18:12	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	116	mg/L	10.0	10.0	1				03/24/20 14:10
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	1.1	mg/L	1.0	0.60	1				03/27/20 10:08 16887-00-6
Fluoride	0.064J	mg/L	0.30	0.050	1				03/27/20 10:08 16984-48-8
Sulfate	10	mg/L	1.0	0.50	1				03/27/20 10:08 14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWA-2I		Lab ID: 2630320003		Collected: 03/19/20 12:37		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	7.22	Std. Units			1			03/23/20 09:08	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	27.4	mg/L	1.0	0.14	1	03/24/20 18:00	03/25/20 17:20	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00030J	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 18:18	7440-36-0	B
Arsenic	0.00066J	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 18:18	7440-38-2	
Barium	0.0036J	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 18:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 18:18	7440-41-7	
Boron	0.0073J	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 18:18	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 18:18	7440-43-9	
Chromium	0.00048J	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 18:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 18:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 18:18	7439-92-1	
Lithium	0.0022J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 18:18	7439-93-2	
Molybdenum	0.0046J	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 18:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 18:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 18:18	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	148	mg/L	10.0	10.0	1			03/24/20 14:10	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	0.97J	mg/L	1.0	0.60	1			03/27/20 10:23	16887-00-6
Fluoride	0.093J	mg/L	0.30	0.050	1			03/27/20 10:23	16984-48-8
Sulfate	12.4	mg/L	1.0	0.50	1			03/27/20 10:23	14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWA-3I		Lab ID: 2630320004		Collected: 03/19/20 11:00		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	7.31	Std. Units			1			03/23/20 09:08	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	21.9	mg/L	1.0	0.14	1	03/24/20 18:00	03/25/20 17:24	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 18:38	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 18:38	7440-38-2	
Barium	0.0029J	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 18:38	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 18:38	7440-41-7	
Boron	0.0053J	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 18:38	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 18:38	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 18:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 18:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 18:38	7439-92-1	
Lithium	0.014J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 18:38	7439-93-2	
Molybdenum	0.0043J	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 18:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 18:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 18:38	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	148	mg/L	10.0	10.0	1		03/24/20 14:10		D6
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	1.1	mg/L	1.0	0.60	1		03/27/20 10:37	16887-00-6	
Fluoride	0.11J	mg/L	0.30	0.050	1		03/27/20 10:37	16984-48-8	
Sulfate	12.9	mg/L	1.0	0.50	1		03/27/20 10:37	14808-79-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWA-3D		Lab ID: 2630320005		Collected: 03/19/20 12:10		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	7.65	Std. Units			1			03/23/20 09:08	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	31.5	mg/L	1.0	0.14	1	03/24/20 18:00	03/25/20 17:27	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00064J	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 18:44	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 18:44	7440-38-2	
Barium	0.0072J	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 18:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 18:44	7440-41-7	
Boron	0.0073J	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 18:44	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 18:44	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 18:44	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 18:44	7440-48-4	
Lead	0.00017J	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 18:44	7439-92-1	
Lithium	0.023J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 18:44	7439-93-2	
Molybdenum	0.013	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 18:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 18:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 18:44	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	146	mg/L	10.0	10.0	1			03/24/20 14:11	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	1.2	mg/L	1.0	0.60	1			03/27/20 10:52	16887-00-6
Fluoride	0.51	mg/L	0.30	0.050	1			03/27/20 10:52	16984-48-8
Sulfate	9.0	mg/L	1.0	0.50	1			03/27/20 10:52	14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWA-14S		Lab ID: 2630320006		Collected: 03/18/20 15:50		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	5.38	Std. Units			1				03/23/20 09:08
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	1.1	mg/L	1.0	0.14	1	03/24/20 18:00	03/25/20 17:31	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 18:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 18:50	7440-38-2	
Barium	0.0076J	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 18:50	7440-39-3	
Beryllium	0.00021J	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 18:50	7440-41-7	
Boron	0.020J	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 18:50	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 18:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 18:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 18:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 18:50	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 18:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 18:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 18:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 18:50	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	57.0	mg/L	10.0	10.0	1				03/24/20 14:08
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	5.2	mg/L	1.0	0.60	1				03/27/20 11:06 16887-00-6
Fluoride	ND	mg/L	0.30	0.050	1				03/27/20 11:06 16984-48-8
Sulfate	8.1	mg/L	1.0	0.50	1				03/27/20 11:06 14808-79-8

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWA-30I		Lab ID: 2630320007		Collected: 03/19/20 14:20		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	6.00	Std. Units			1				03/23/20 09:08
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	1.2	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 12:39	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 18:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 18:55	7440-38-2	
Barium	0.0074J	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 18:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 18:55	7440-41-7	
Boron	0.0052J	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 18:55	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 18:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 18:55	7440-47-3	
Cobalt	0.014	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 18:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 18:55	7439-92-1	
Lithium	0.0012J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 18:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 18:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 18:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 18:55	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	47.0	mg/L	10.0	10.0	1				03/24/20 14:11
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	1.8	mg/L	1.0	0.60	1				03/27/20 11:21
Fluoride	ND	mg/L	0.30	0.050	1				03/27/20 11:21
Sulfate	1.6	mg/L	1.0	0.50	1				03/27/20 11:21
									16887-00-6
									16984-48-8
									14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: EB-1-3-19-20		Lab ID: 2630320008		Collected: 03/19/20 13:15		Received: 03/20/20 14:10		Matrix: Water		
Parameters	Results	Units	Report Limit				Prepared	Analyzed	CAS No.	Qual
			MDL	DF	Prepared	Analyzed				
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	ND	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 12:53	7440-70-2		
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 19:07	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 19:07	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 19:07	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 19:07	7440-41-7		
Boron	ND	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 19:07	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 19:07	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 19:07	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 19:07	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 19:07	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 19:07	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 19:07	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 19:07	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 19:07	7440-28-0		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1			03/24/20 14:11		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1			03/27/20 11:35	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1			03/27/20 11:35	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1			03/27/20 11:35	14808-79-8	

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: FB-1-3-19-20		Lab ID: 2630320009		Collected: 03/19/20 15:15		Received: 03/20/20 14:10		Matrix: Water				
Parameters	Results	Units	Report Limit				Prepared	Analyzed	CAS No.	Qual		
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA										
Calcium	ND	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 12:57	7440-70-2				
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA										
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 16:15	7440-36-0				
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 16:15	7440-38-2				
Barium	ND	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 16:15	7440-39-3				
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 16:15	7440-41-7				
Boron	<b>0.0050J</b>	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 16:15	7440-42-8				
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 16:15	7440-43-9				
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 16:15	7440-47-3				
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 16:15	7440-48-4				
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 16:15	7439-92-1				
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 16:15	7439-93-2				
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 16:15	7439-98-7				
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 16:15	7782-49-2				
Thallium	<b>0.000079J</b>	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 16:15	7440-28-0				
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA										
Total Dissolved Solids	ND	mg/L	10.0	10.0	1			03/24/20 14:11				
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville										
Chloride	ND	mg/L	1.0	0.60	1			03/27/20 11:50	16887-00-6			
Fluoride	ND	mg/L	0.30	0.050	1			03/27/20 11:50	16984-48-8			
Sulfate	ND	mg/L	1.0	0.50	1			03/27/20 11:50	14808-79-8			

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWC-26S		Lab ID: 2630320011		Collected: 03/19/20 16:47		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	5.46	Std. Units			1			03/23/20 09:08	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	13.0	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:04	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.0017J	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 16:43	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 16:43	7440-38-2	
Barium	0.027	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 16:43	7440-39-3	
Beryllium	0.00012J	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 16:43	7440-41-7	
Boron	0.73	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 16:43	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 16:43	7440-43-9	
Chromium	0.0018J	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 16:43	7440-47-3	
Cobalt	0.0021J	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 16:43	7440-48-4	
Lead	0.00010J	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 16:43	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 16:43	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 16:43	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 16:43	7782-49-2	
Thallium	0.000055J	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 16:43	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	194	mg/L	10.0	10.0	1			03/24/20 14:11	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	15.4	mg/L	1.0	0.60	1			03/27/20 13:31	16887-00-6
Fluoride	ND	mg/L	0.30	0.050	1			03/27/20 13:31	16984-48-8
Sulfate	99.4	mg/L	1.0	0.50	1			03/27/20 13:31	14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWC-26I		Lab ID: 2630320012		Collected: 03/20/20 10:47		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	5.94	Std. Units			1			03/23/20 09:08	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	17.1	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:14	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00059J	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 16:49	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 16:49	7440-38-2	
Barium	0.063	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 16:49	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 16:49	7440-41-7	
Boron	0.94	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 16:49	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 16:49	7440-43-9	
Chromium	0.00090J	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 16:49	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 16:49	7440-48-4	
Lead	0.000059J	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 16:49	7439-92-1	
Lithium	0.0072J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 16:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 16:49	7439-98-7	
Selenium	0.0019J	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 16:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 16:49	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	211	mg/L	10.0	10.0	1			03/24/20 14:23	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	17.7	mg/L	1.0	0.60	1			03/27/20 13:46	16887-00-6
Fluoride	0.060J	mg/L	0.30	0.050	1			03/27/20 13:46	16984-48-8
Sulfate	84.7	mg/L	1.0	0.50	1			03/27/20 13:46	14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWC-27S		Lab ID: 2630320013		Collected: 03/20/20 12:00		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	6.18	Std. Units			1			03/23/20 09:08	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	42.1	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:17	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00030J	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 16:55	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 16:55	7440-38-2	
Barium	0.095	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 16:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 16:55	7440-41-7	
Boron	1.4	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 16:55	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 16:55	7440-43-9	
Chromium	0.00050J	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 16:55	7440-47-3	
Cobalt	0.0022J	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 16:55	7440-48-4	
Lead	0.000085J	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 16:55	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 16:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 16:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 16:55	7782-49-2	
Thallium	0.00011J	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 16:55	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	182	mg/L	10.0	10.0	1			03/24/20 14:23	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	17.7	mg/L	1.0	0.60	1			03/27/20 14:00	16887-00-6
Fluoride	0.097J	mg/L	0.30	0.050	1			03/27/20 14:00	16984-48-8
Sulfate	21.1	mg/L	1.0	0.50	1			03/27/20 14:00	14808-79-8

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWC-27I		Lab ID: 2630320014		Collected: 03/20/20 12:05		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	6.32	Std. Units			1			03/23/20 09:08	
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	30.3	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:21	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00033J	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 17:44	7440-36-0	B
Arsenic	0.00042J	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 17:44	7440-38-2	
Barium	0.062	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 17:44	7440-39-3	
Beryllium	0.00023J	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 17:44	7440-41-7	
Boron	2.1	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 17:44	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 17:44	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 17:44	7440-47-3	
Cobalt	0.014	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 17:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 17:44	7439-92-1	
Lithium	0.0091J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 17:44	7439-93-2	
Molybdenum	0.0014J	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 17:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 17:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 17:44	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	195	mg/L	10.0	10.0	1			03/24/20 14:23	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	13.0	mg/L	1.0	0.60	1			03/27/20 14:15	16887-00-6
Fluoride	ND	mg/L	0.30	0.050	1			03/27/20 14:15	16984-48-8
Sulfate	5.2	mg/L	1.0	0.50	1			03/27/20 14:15	14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWC-28S		Lab ID: 2630320015		Collected: 03/19/20 14:55		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	6.98	Std. Units			1				03/23/20 09:08
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	30.4	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:24	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 17:50	7440-36-0	
Arsenic	0.00051J	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 17:50	7440-38-2	
Barium	0.20	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 17:50	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 17:50	7440-41-7	
Boron	2.5	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 17:50	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 17:50	7440-43-9	
Chromium	0.00049J	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 17:50	7440-47-3	
Cobalt	0.00093J	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 17:50	7440-48-4	
Lead	0.000075J	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 17:50	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 17:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 17:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 17:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 17:50	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	202	mg/L	10.0	10.0	1				03/24/20 14:12
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	18.1	mg/L	1.0	0.60	1				03/27/20 14:29 16887-00-6
Fluoride	0.16J	mg/L	0.30	0.050	1				03/27/20 14:29 16984-48-8
Sulfate	1.7	mg/L	1.0	0.50	1				03/27/20 14:29 14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWC-28I		Lab ID: 2630320016		Collected: 03/19/20 16:00		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	7.01	Std. Units			1				03/23/20 09:08
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	37.3	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:28	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 17:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 17:56	7440-38-2	
Barium	0.089	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 17:56	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 17:56	7440-41-7	
Boron	2.4	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 17:56	7440-42-8	
Cadmium	0.00016J	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 17:56	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 17:56	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 17:56	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 17:56	7439-92-1	
Lithium	0.0070J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 17:56	7439-93-2	
Molybdenum	0.0014J	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 17:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 17:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 17:56	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	212	mg/L	10.0	10.0	1				03/24/20 14:12
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	16.0	mg/L	1.0	0.60	1				03/27/20 14:44 16887-00-6
Fluoride	0.070J	mg/L	0.30	0.050	1				03/27/20 14:44 16984-48-8
Sulfate	9.1	mg/L	1.0	0.50	1				03/27/20 14:44 14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: YGWC-29I		Lab ID: 2630320017		Collected: 03/20/20 10:12		Received: 03/20/20 14:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	6.17	Std. Units			1				03/23/20 09:08
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	12.7	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:31	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 18:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 18:01	7440-38-2	
Barium	0.057	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 18:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 18:01	7440-41-7	
Boron	0.80	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 18:01	7440-42-8	
Cadmium	0.00022J	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 18:01	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 18:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 18:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 18:01	7439-92-1	
Lithium	0.0051J	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 18:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 18:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 18:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 18:01	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	137	mg/L	10.0	10.0	1				03/24/20 14:23
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	11.3	mg/L	1.0	0.60	1				03/27/20 14:58 16887-00-6
Fluoride	0.057J	mg/L	0.30	0.050	1				03/27/20 14:58 16984-48-8
Sulfate	33.0	mg/L	1.0	0.50	1				03/27/20 14:58 14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2  
Pace Project No.: 2630320

Sample: EB-2-3-19-20		Lab ID: 2630320018		Collected: 03/19/20 13:15		Received: 03/20/20 14:10		Matrix: Water		
Parameters	Results	Units	Report Limit				Prepared	Analyzed	CAS No.	Qual
			MDL	DF						
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	ND	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:35	7440-70-2		
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 18:07	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 18:07	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 18:07	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 18:07	7440-41-7		
Boron	<b>0.0096J</b>	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 18:07	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 18:07	7440-43-9		
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 18:07	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 18:07	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 18:07	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 18:07	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 18:07	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 18:07	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 18:07	7440-28-0		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1				03/24/20 14:12	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1				03/27/20 15:13	16887-00-6
Fluoride	ND	mg/L	0.30	0.050	1				03/27/20 15:13	16984-48-8
Sulfate	ND	mg/L	1.0	0.50	1				03/27/20 15:13	14808-79-8

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: FB-2-3-19-20		Lab ID: 2630320019		Collected: 03/19/20 11:15		Received: 03/20/20 14:10		Matrix: Water				
Parameters	Results	Units	Report Limit				Prepared	Analyzed	CAS No.	Qual		
<b>6010D MET ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA										
Calcium	ND	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:38	7440-70-2				
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA										
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 18:13	7440-36-0				
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 18:13	7440-38-2				
Barium	ND	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 18:13	7440-39-3				
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 18:13	7440-41-7				
Boron	<b>0.0070J</b>	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 18:13	7440-42-8				
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 18:13	7440-43-9				
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 18:13	7440-47-3				
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 18:13	7440-48-4				
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 18:13	7439-92-1				
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 18:13	7439-93-2				
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 18:13	7439-98-7				
Selenium	ND	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 18:13	7782-49-2				
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 18:13	7440-28-0				
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA										
Total Dissolved Solids	ND	mg/L	10.0	10.0	1			03/24/20 14:12				
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville										
Chloride	ND	mg/L	1.0	0.60	1			03/26/20 15:46	16887-00-6			
Fluoride	ND	mg/L	0.30	0.050	1			03/26/20 15:46	16984-48-8	M1,R1		
Sulfate	ND	mg/L	1.0	0.50	1			03/26/20 15:46	14808-79-8			

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: DUP-2	Lab ID: 2630320020	Collected: 03/20/20 00:00	Received: 03/20/20 14:10	Matrix: Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	<b>17.2</b>	mg/L	1.0	0.14	1	03/24/20 19:40	03/26/20 13:42	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/27/20 18:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/27/20 18:18	7440-38-2	
Barium	<b>0.062</b>	mg/L	0.010	0.00049	1	03/24/20 19:40	03/27/20 18:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/27/20 18:18	7440-41-7	
Boron	<b>0.92</b>	mg/L	0.10	0.0049	1	03/24/20 19:40	03/27/20 18:18	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/27/20 18:18	7440-43-9	
Chromium	<b>0.00093J</b>	mg/L	0.010	0.00039	1	03/24/20 19:40	03/27/20 18:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/27/20 18:18	7440-48-4	
Lead	<b>0.000071J</b>	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/27/20 18:18	7439-92-1	
Lithium	<b>0.0071J</b>	mg/L	0.030	0.00078	1	03/24/20 19:40	03/27/20 18:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/27/20 18:18	7439-98-7	
Selenium	<b>0.0022J</b>	mg/L	0.010	0.0013	1	03/24/20 19:40	03/27/20 18:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/27/20 18:18	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	<b>178</b>	mg/L	10.0	10.0	1			03/24/20 14:24	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>17.0</b>	mg/L	1.0	0.60	1			03/26/20 16:29	16887-00-6
Fluoride	<b>0.071J</b>	mg/L	0.30	0.050	1			03/26/20 16:29	16984-48-8
Sulfate	<b>83.5</b>	mg/L	1.0	0.50	1			03/26/20 16:29	14808-79-8

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Sample: DUP-1	Lab ID: 2630255009		Collected: 03/18/20 00:00	Received: 03/20/20 14:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010D MET ICP</b>	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	1.1	mg/L	1.0	0.14	1	03/24/20 18:00	03/25/20 16:59	7440-70-2	
<b>6020B MET ICPMS</b>	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/24/20 19:40	03/26/20 17:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/24/20 19:40	03/26/20 17:55	7440-38-2	
Barium	0.0080J	mg/L	0.010	0.00049	1	03/24/20 19:40	03/26/20 17:55	7440-39-3	
Beryllium	0.00020J	mg/L	0.0030	0.000074	1	03/24/20 19:40	03/26/20 17:55	7440-41-7	
Boron	0.033J	mg/L	0.10	0.0049	1	03/24/20 19:40	03/26/20 17:55	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00011	1	03/24/20 19:40	03/26/20 17:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	03/24/20 19:40	03/26/20 17:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/24/20 19:40	03/26/20 17:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/24/20 19:40	03/26/20 17:55	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/24/20 19:40	03/26/20 17:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/24/20 19:40	03/26/20 17:55	7439-98-7	
Selenium	0.0015J	mg/L	0.010	0.0013	1	03/24/20 19:40	03/26/20 17:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/24/20 19:40	03/26/20 17:55	7440-28-0	
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	42.0	mg/L	10.0	10.0	1			03/23/20 18:14	
<b>300.0 IC Anions 28 Days</b>	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	5.4	mg/L	1.0	0.60	1			03/26/20 17:13	16887-00-6
Fluoride	ND	mg/L	0.30	0.050	1			03/26/20 17:13	16984-48-8
Sulfate	9.9	mg/L	1.0	0.50	1			03/26/20 17:13	14808-79-8

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch: 44881 Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A Analysis Description: 6010D MET

Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630255009, 2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006

METHOD BLANK: 206477 Matrix: Water

Associated Lab Samples: 2630255009, 2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.14	03/25/20 16:05	

LABORATORY CONTROL SAMPLE: 206478

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

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 206479 206480

Parameter	Units	MS Result	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	31.9	1	1	33.2	33.9	123	195	75-125	2	20 M1

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch: 44895 Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A Analysis Description: 6010D MET

Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630320007, 2630320008, 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018, 2630320019, 2630320020

METHOD BLANK: 206546 Matrix: Water

Associated Lab Samples: 2630320007, 2630320008, 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018, 2630320019, 2630320020

Parameter	Units	Blank	Reporting	MDL	Analyzed	Qualifiers
		Result	Limit			
Calcium	mg/L	ND	1.0	0.14	03/26/20 12:32	

LABORATORY CONTROL SAMPLE: 206547

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

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 206548 206549

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	Max	
		Result	Spike									
Calcium	mg/L	1.2	1	1	2.3	2.3	2.3	105	102	75-125	1	20

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch:	44893	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET
		Laboratory:	Pace Analytical Services - Atlanta, GA
Associated Lab Samples:	2630255009, 2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008		

METHOD BLANK: 206538

Matrix: Water

Associated Lab Samples: 2630255009, 2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	MDL	
Antimony	mg/L	0.00031J	0.0030	0.00027	03/26/20 16:09
Arsenic	mg/L	ND	0.0050	0.00035	03/26/20 16:09
Barium	mg/L	ND	0.010	0.00049	03/26/20 16:09
Beryllium	mg/L	ND	0.0030	0.000074	03/26/20 16:09
Boron	mg/L	ND	0.10	0.0049	03/26/20 16:09
Cadmium	mg/L	ND	0.0025	0.00011	03/26/20 16:09
Chromium	mg/L	ND	0.010	0.00039	03/26/20 16:09
Cobalt	mg/L	ND	0.0050	0.00030	03/26/20 16:09
Lead	mg/L	ND	0.0050	0.000046	03/26/20 16:09
Lithium	mg/L	ND	0.030	0.00078	03/26/20 16:09
Molybdenum	mg/L	ND	0.010	0.00095	03/26/20 16:09
Selenium	mg/L	ND	0.010	0.0013	03/26/20 16:09
Thallium	mg/L	ND	0.0010	0.000052	03/26/20 16:09

LABORATORY CONTROL SAMPLE: 206539

Parameter	Units	Spike	LCS		% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Antimony	mg/L	0.1	0.11	114	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.10	104	80-120	
Boron	mg/L	1	1.1	110	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.11	107	80-120	
Cobalt	mg/L	0.1	0.10	104	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	106	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	100	80-120	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 206540 206541

Parameter	Units	MS	MSD	MS	MSD	% Rec	MSD	% Rec	% Rec	RPD	Max
		2630257002	Spike								
Antimony	mg/L	0.00042J	0.1	0.1	0.11	0.11	0.11	111	108	75-125	3 20

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## REPORT OF LABORATORY ANALYSIS

## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 206540      206541

Parameter	Units	MS		MSD		MS Result	% Rec	MSD % Rec	% Rec Limits	Max	
		2630257002 Result	Spike Conc.	Spike Conc.	MS Result					RPD	RPD
Arsenic	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20
Barium	mg/L	0.099	0.1	0.1	0.20	0.19	102	95	75-125	3	20
Beryllium	mg/L	ND	0.1	0.1	0.093	0.096	93	96	75-125	3	20
Boron	mg/L	0.61	1	1	1.6	1.6	97	98	75-125	0	20
Cadmium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	104	104	75-125	0	20
Cobalt	mg/L	0.0040J	0.1	0.1	0.10	0.10	101	101	75-125	0	20
Lead	mg/L	0.00010J	0.1	0.1	0.095	0.095	95	95	75-125	0	20
Lithium	mg/L	0.013J	0.1	0.1	0.11	0.11	94	97	75-125	3	20
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20
Selenium	mg/L	ND	0.1	0.1	0.098	0.098	97	97	75-125	0	20
Thallium	mg/L	0.000080J	0.1	0.1	0.096	0.095	95	95	75-125	0	20

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch:	44894	Analysis Method:	EPA 6020B	
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET	
Laboratory:			Pace Analytical Services - Atlanta, GA	
Associated Lab Samples:			2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018, 2630320019, 2630320020	

METHOD BLANK: 206542

Matrix: Water

Associated Lab Samples: 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017,  
2630320018, 2630320019, 2630320020

Parameter	Units	Blank	Reporting		Analyzed	Qualifiers
		Result	Limit	MDL		
Antimony	mg/L	0.00034J	0.0030	0.00027	03/27/20 16:03	
Arsenic	mg/L	ND	0.0050	0.00035	03/27/20 16:03	
Barium	mg/L	ND	0.010	0.00049	03/27/20 16:03	
Beryllium	mg/L	ND	0.0030	0.000074	03/27/20 16:03	
Boron	mg/L	ND	0.10	0.0049	03/27/20 16:03	
Cadmium	mg/L	ND	0.0025	0.00011	03/27/20 16:03	
Chromium	mg/L	ND	0.010	0.00039	03/27/20 16:03	
Cobalt	mg/L	ND	0.0050	0.00030	03/27/20 16:03	
Lead	mg/L	ND	0.0050	0.000046	03/27/20 16:03	
Lithium	mg/L	ND	0.030	0.00078	03/27/20 16:03	
Molybdenum	mg/L	ND	0.010	0.00095	03/27/20 16:03	
Selenium	mg/L	ND	0.010	0.0013	03/27/20 16:03	
Thallium	mg/L	ND	0.0010	0.000052	03/27/20 16:03	

LABORATORY CONTROL SAMPLE: 206543

Parameter	Units	Spike	LCS	LCS	% Rec	Limits	Qualifiers
		Conc.	Result	% Rec			
Antimony	mg/L	0.1	0.11	105	80-120		
Arsenic	mg/L	0.1	0.099	99	80-120		
Barium	mg/L	0.1	0.098	98	80-120		
Beryllium	mg/L	0.1	0.10	100	80-120		
Boron	mg/L	1	1.1	106	80-120		
Cadmium	mg/L	0.1	0.098	98	80-120		
Chromium	mg/L	0.1	0.10	102	80-120		
Cobalt	mg/L	0.1	0.098	98	80-120		
Lead	mg/L	0.1	0.099	99	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	0.10	101	80-120		
Thallium	mg/L	0.1	0.098	98	80-120		

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 206544      206545

Parameter	Units	MS	MSD	MS	MSD	% Rec	MSD % Rec	% Rec	RPD	Max RPD	Qual
		2630320010	Spike	Spike	Spike	Result	Result	Result	Limits	RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	0.11	109	112	75-125	3 20

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## REPORT OF LABORATORY ANALYSIS

## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Parameter	Units	206544		206545		% Rec	Limits	RPD	Max RPD	Max Qual					
		MS		MSD											
		2630320010	Spike Conc.	Spike Conc.	MS Result										
Arsenic	mg/L	ND	0.1	0.1	0.10	0.11	102	105	75-125	3 20					
Barium	mg/L	0.041	0.1	0.1	0.14	0.14	103	104	75-125	1 20					
Beryllium	mg/L	0.000083J	0.1	0.1	0.10	0.10	99	100	75-125	1 20					
Boron	mg/L	5.3	1	1	6.5	6.3	117	105	75-125	2 20					
Cadmium	mg/L	0.00013J	0.1	0.1	0.10	0.10	100	103	75-125	3 20					
Chromium	mg/L	0.00040J	0.1	0.1	0.11	0.11	106	109	75-125	3 20					
Cobalt	mg/L	0.0031J	0.1	0.1	0.11	0.11	103	103	75-125	0 20					
Lead	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	3 20					
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	101	103	75-125	2 20					
Molybdenum	mg/L		0.1	0.1	0.10	0.11	103	107	75-125	4 20					
Selenium	mg/L	0.0042J	0.1	0.1	0.11	0.11	103	104	75-125	1 20					
Thallium	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1 20					

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch: 44831 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630255009, 2630320001

LABORATORY CONTROL SAMPLE: 206292

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	363	91	84-108	

SAMPLE DUPLICATE: 206293

Parameter	Units	2630255001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	185	199	7	10	

SAMPLE DUPLICATE: 206294

Parameter	Units	2630257006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	141	146	3	10	

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch:	44875	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Atlanta, GA
Associated Lab Samples:	2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008, 2630320009, 2630320011, 2630320015, 2630320016, 2630320018, 2630320019		

**LABORATORY CONTROL SAMPLE: 206450**

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	399	100	84-108	

**SAMPLE DUPLICATE: 206451**

Parameter	Units	2630320006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	57.0	63.0	10	10	

**SAMPLE DUPLICATE: 206452**

Parameter	Units	2630320004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	148	122	19	10	D6

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch: 44876 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630320012, 2630320013, 2630320014, 2630320017, 2630320020

**LABORATORY CONTROL SAMPLE:** 206453

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	383	96	84-108	

**SAMPLE DUPLICATE:** 206454

Parameter	Units	2630325012 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	733	756	3	10	

**SAMPLE DUPLICATE:** 206455

Parameter	Units	2630320014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	195	196	1	10	

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch:	532325	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 2630255009, 2630320019, 2630320020

METHOD BLANK: 2841784 Matrix: Water

Associated Lab Samples: 2630255009, 2630320019, 2630320020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/26/20 15:03	
Fluoride	mg/L	ND	0.10	0.050	03/26/20 15:03	
Sulfate	mg/L	ND	1.0	0.50	03/26/20 15:03	

LABORATORY CONTROL SAMPLE: 2841785

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	48.5	97	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	51.0	102	90-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2841786 2841787

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	RPD	Max Qual
		2630320019	Spike Conc.	Result	Conc.	Result	% Rec	Result	Conc.	Limits		
Chloride	mg/L	ND	50	50	50.0	50.9	100	102	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	3.2	2.8	129	112	90-110	14	10	M1,R1
Sulfate	mg/L	ND	50	50	53.4	53.7	107	107	90-110	1	10	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2841788 2841789

Parameter	Units	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	RPD	RPD	Max Qual
		92470768004	Spike Conc.	Result	Conc.	Result	% Rec	Result	Conc.	Limits		
Chloride	mg/L	5.0	50	50	54.7	54.8	99	100	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	3.2	3.0	127	119	90-110	6	10	M1
Sulfate	mg/L	13.7	50	50	64.7	64.5	102	102	90-110	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.

## REPORT OF LABORATORY ANALYSIS

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## QUALITY CONTROL DATA

Project: PLANT YATES AP-2

Pace Project No.: 2630320

QC Batch: 532327 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: Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008, 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018

METHOD BLANK: 2841796

Matrix: Water

Associated Lab Samples: 2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008, 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	03/27/20 07:43	
Fluoride	mg/L	ND	0.10	0.050	03/27/20 07:43	
Sulfate	mg/L	ND	1.0	0.50	03/27/20 07:43	

LABORATORY CONTROL SAMPLE: 2841797

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	54.0	108	90-110	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2841798 2841799

Parameter	Units	MS 2630325019	MSD Spike	MSD Spike	MS	MSD	MS	MSD	% Rec	Max		
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	ND	50	50	51.3	50.9	103	102	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	110	109	90-110	0	10	
Sulfate	mg/L	ND	50	50	54.7	54.1	109	108	90-110	1	10	

MATRIX SPIKE &amp; MATRIX SPIKE DUPLICATE: 2841800 2841801

Parameter	Units	MS 2630320010	MSD Spike	MSD Spike	MS	MSD	MS	MSD	% Rec	Max		
		Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	239	50	50	279	266	80	54	90-110	5	10	M6
Fluoride	mg/L	ND	2.5	2.5	2.5	2.6	101	101	90-110	1	10	
Sulfate	mg/L	199	50	50	245	234	92	70	90-110	5	10	M6

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## QUALIFIERS

Project: PLANT YATES AP-2

Pace Project No.: 2630320

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

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

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 YATES AP-2

Pace Project No.: 2630320

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630320001	YGWA-1I				
2630320002	YGWA-1D				
2630320003	YGWA-2I				
2630320004	YGWA-3I				
2630320005	YGWA-3D				
2630320006	YGWA-14S				
2630320007	YGWA-30I				
2630320011	YGWC-26S				
2630320012	YGWC-26I				
2630320013	YGWC-27S				
2630320014	YGWC-27I				
2630320015	YGWC-28S				
2630320016	YGWC-28I				
2630320017	YGWC-29I				
2630255009	DUP-1	EPA 3010A	44881	EPA 6010D	44898
2630320001	YGWA-1I	EPA 3010A	44881	EPA 6010D	44898
2630320002	YGWA-1D	EPA 3010A	44881	EPA 6010D	44898
2630320003	YGWA-2I	EPA 3010A	44881	EPA 6010D	44898
2630320004	YGWA-3I	EPA 3010A	44881	EPA 6010D	44898
2630320005	YGWA-3D	EPA 3010A	44881	EPA 6010D	44898
2630320006	YGWA-14S	EPA 3010A	44881	EPA 6010D	44898
2630320007	YGWA-30I	EPA 3010A	44895	EPA 6010D	44902
2630320008	EB-1-3-19-20	EPA 3010A	44895	EPA 6010D	44902
2630320009	FB-1-3-19-20	EPA 3010A	44895	EPA 6010D	44902
2630320011	YGWC-26S	EPA 3010A	44895	EPA 6010D	44902
2630320012	YGWC-26I	EPA 3010A	44895	EPA 6010D	44902
2630320013	YGWC-27S	EPA 3010A	44895	EPA 6010D	44902
2630320014	YGWC-27I	EPA 3010A	44895	EPA 6010D	44902
2630320015	YGWC-28S	EPA 3010A	44895	EPA 6010D	44902
2630320016	YGWC-28I	EPA 3010A	44895	EPA 6010D	44902
2630320017	YGWC-29I	EPA 3010A	44895	EPA 6010D	44902
2630320018	EB-2-3-19-20	EPA 3010A	44895	EPA 6010D	44902
2630320019	FB-2-3-19-20	EPA 3010A	44895	EPA 6010D	44902
2630320020	DUP-2	EPA 3010A	44895	EPA 6010D	44902
2630255009	DUP-1	EPA 3005A	44893	EPA 6020B	44900
2630320001	YGWA-1I	EPA 3005A	44893	EPA 6020B	44900
2630320002	YGWA-1D	EPA 3005A	44893	EPA 6020B	44900
2630320003	YGWA-2I	EPA 3005A	44893	EPA 6020B	44900
2630320004	YGWA-3I	EPA 3005A	44893	EPA 6020B	44900
2630320005	YGWA-3D	EPA 3005A	44893	EPA 6020B	44900
2630320006	YGWA-14S	EPA 3005A	44893	EPA 6020B	44900
2630320007	YGWA-30I	EPA 3005A	44893	EPA 6020B	44900
2630320008	EB-1-3-19-20	EPA 3005A	44893	EPA 6020B	44900
2630320009	FB-1-3-19-20	EPA 3005A	44894	EPA 6020B	44901
2630320011	YGWC-26S	EPA 3005A	44894	EPA 6020B	44901
2630320012	YGWC-26I	EPA 3005A	44894	EPA 6020B	44901
2630320013	YGWC-27S	EPA 3005A	44894	EPA 6020B	44901

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630320014	YGWC-27I	EPA 3005A	44894	EPA 6020B	44901
2630320015	YGWC-28S	EPA 3005A	44894	EPA 6020B	44901
2630320016	YGWC-28I	EPA 3005A	44894	EPA 6020B	44901
2630320017	YGWC-29I	EPA 3005A	44894	EPA 6020B	44901
2630320018	EB-2-3-19-20	EPA 3005A	44894	EPA 6020B	44901
2630320019	FB-2-3-19-20	EPA 3005A	44894	EPA 6020B	44901
2630320020	DUP-2	EPA 3005A	44894	EPA 6020B	44901
2630255009	DUP-1	SM 2540C	44831		
2630320001	YGWA-1I	SM 2540C	44831		
2630320002	YGWA-1D	SM 2540C	44875		
2630320003	YGWA-2I	SM 2540C	44875		
2630320004	YGWA-3I	SM 2540C	44875		
2630320005	YGWA-3D	SM 2540C	44875		
2630320006	YGWA-14S	SM 2540C	44875		
2630320007	YGWA-30I	SM 2540C	44875		
2630320008	EB-1-3-19-20	SM 2540C	44875		
2630320009	FB-1-3-19-20	SM 2540C	44875		
2630320011	YGWC-26S	SM 2540C	44875		
2630320012	YGWC-26I	SM 2540C	44876		
2630320013	YGWC-27S	SM 2540C	44876		
2630320014	YGWC-27I	SM 2540C	44876		
2630320015	YGWC-28S	SM 2540C	44875		
2630320016	YGWC-28I	SM 2540C	44875		
2630320017	YGWC-29I	SM 2540C	44876		
2630320018	EB-2-3-19-20	SM 2540C	44875		
2630320019	FB-2-3-19-20	SM 2540C	44875		
2630320020	DUP-2	SM 2540C	44876		
2630255009	DUP-1	EPA 300.0 Rev 2.1 1993	532325		
2630320001	YGWA-1I	EPA 300.0 Rev 2.1 1993	532327		
2630320002	YGWA-1D	EPA 300.0 Rev 2.1 1993	532327		
2630320003	YGWA-2I	EPA 300.0 Rev 2.1 1993	532327		
2630320004	YGWA-3I	EPA 300.0 Rev 2.1 1993	532327		
2630320005	YGWA-3D	EPA 300.0 Rev 2.1 1993	532327		
2630320006	YGWA-14S	EPA 300.0 Rev 2.1 1993	532327		
2630320007	YGWA-30I	EPA 300.0 Rev 2.1 1993	532327		
2630320008	EB-1-3-19-20	EPA 300.0 Rev 2.1 1993	532327		
2630320009	FB-1-3-19-20	EPA 300.0 Rev 2.1 1993	532327		
2630320011	YGWC-26S	EPA 300.0 Rev 2.1 1993	532327		
2630320012	YGWC-26I	EPA 300.0 Rev 2.1 1993	532327		
2630320013	YGWC-27S	EPA 300.0 Rev 2.1 1993	532327		
2630320014	YGWC-27I	EPA 300.0 Rev 2.1 1993	532327		
2630320015	YGWC-28S	EPA 300.0 Rev 2.1 1993	532327		
2630320016	YGWC-28I	EPA 300.0 Rev 2.1 1993	532327		
2630320017	YGWC-29I	EPA 300.0 Rev 2.1 1993	532327		

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT YATES AP-2

Pace Project No.: 2630320

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630320018	EB-2-3-19-20	EPA 300.0 Rev 2.1 1993	532327		
2630320019	FB-2-3-19-20	EPA 300.0 Rev 2.1 1993	532325		
2630320020	DUP-2	EPA 300.0 Rev 2.1 1993	532325		

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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.

# CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A

Required Client Information:

Company: GA Power

Address: Atlanta, GA

Email To: SCS Contacts

Phone:

Fax:

Requested Due Date/TAT: 10 Day

Section B

Required Project Information:

Report To: SCS Contacts

Copy To: ACC Contacts

Purchase Order No.:

Project Name: Plant Yates AP2

Pace Profile #: 2916-15

Project Number:

Section C

Invoice Information:

Attention: Southern Co.

Company Name:

Address:

Pace Quote Reference:

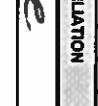
Pace Project Manager: Kevin Herring

Manager:

Site Location: GA

STATE: GA

Page: 2 of 2

ITEM #	SAMPLE ID (A-Z, 0-9, -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes		DATE	TIME	DATE	TIME	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)			
		MATRIX CODE	CODE														
1	Y6-WC-26S	WT	G	3-19-20	1647												
2	Y6-WC-26T	WT	G	3-20-20	1047			5	2	3		X	X	X	X	X	X
3	Y6-WC-27S	WT	G	3-20-20	1200			5	2	3		X	X	X	X	X	X
4	Y6-WC-27T	WT	G	3-20-20	1305			5	2	3		X	X	X	X	X	X
5	Y6-WC-28S	WT	G	3-19-20	1455			5	2	3		X	X	X	X	X	X
6	Y6-WC-28T	WT	G	3-19-20	1600			5	2	3		X	X	X	X	X	X
7	Y6-WC-29T	WT	G	3-20-20	1012			5	2	3		X	X	X	X	X	X
8	EB-2-3-19-20	WT	G	3-19-20	1315			5	2	3		X	X	X	X	X	X
9	EB-2-3-19-20	WT	G	3-19-20	1115			5	2	3		X	X	X	X	X	X
10	DWP-2	WT	G	3-20-20	-			5	2	3		X	X	X	X	X	X
11								5	2	3		X	X	X	X	X	X
12																	
ADDITIONAL COMMENTS				RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS					
Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.				Pace Analytical LLC		3-20-20	14:10	Pace Analytical LLC		3-20-20	14:10						
<i>Last Sample at On 3-20-20</i>																	
<i>*Metals=B, Ca, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Se, Mo, Ti</i>																	
SAMPLER NAME AND SIGNATURE																	
PRINT Name of SAMPLER: Ryan Waller								DATE Signed: 3/20/2020									
SIGNATURE of SAMPLER: 								(MM/DD/YY): 03/20/20									
Temp in °C																	
Received on Ice (Y/N)																	
Custody Sealed Cooler (Y/N)																	
Samples Intact (Y/N)																	

Project Manager Review:

Date:

Comments/Resolution:

Person Contacted: \_\_\_\_\_ Date/TIME: \_\_\_\_\_

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

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Comments:
Packing Material: <input type="checkbox"/> Bubble Wrap <input type="checkbox"/> Bubble Bags <input type="checkbox"/> None <input checked="" type="checkbox"/> Other <i>PuStHC BlaY</i>	Type of ice: <i>WR</i> Blue None <input type="checkbox"/> Samples on ice, cooling process has begun	Cooler Temperature <i>THR33</i> <input checked="" type="checkbox"/> Samples are still in the cooler
Customer Seal on Cooler/Box Present: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no Seals intact: <input type="checkbox"/> yes <input type="checkbox"/> no	Biological Tissue is Frozen: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Temp should be above freezing to 6°C
Chain of Custody Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Comments:	Containers:
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples Arrived Within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Rush Turn Around Time Requested: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <i>7-10 Day</i>
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Short Hold Time Analysts (72hr): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Filtered Volume received for Dissolved tests: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Correct 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	All containers needing preservation have been checked.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	All containers needing preservation are found to be in compliance with EPA recommendation.	Includes date/time/ID/Analysts Matrix: <i>W</i>
Sample Matrix: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Initial when exceptions: VOA, callform, TOC, O&G, W/HRO (water)	Lot # of added preservative
13. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
16. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	17. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	18. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
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22. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	23. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	24. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
25. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	26. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	27. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
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31. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	32. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	33. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
34. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	35. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	36. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
37. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	38. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	39. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
40. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	41. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	42. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
43. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	44. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	45. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
46. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	47. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	48. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
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52. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	53. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	54. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
55. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	56. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	57. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
58. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	59. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	60. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
61. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	62. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	63. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
64. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	65. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	66. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
67. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	68. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	69. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
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May 05, 2020

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

RE: Project: 2630320 PLANT YATES AP-2  
Pace Project No.: 30356152

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 24, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

Revision 1 - This report replaces the April 13, 2020 report. This project was revised on May 5, 2020 in order to cancel a sample as per client request. (Greensburg, PA)

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

Sincerely,



Jacquelyn Collins  
jacquelyn.collins@pacelabs.com  
(724)850-5612  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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

## CERTIFICATIONS

Project: 2630320 PLANT YATES AP-2  
 Pace Project No.: 30356152

### Pace Analytical Services Pennsylvania

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

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

## REPORT OF LABORATORY ANALYSIS

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 without the written consent of Pace Analytical Services, LLC.

## SAMPLE SUMMARY

Project: 2630320 PLANT YATES AP-2  
Pace Project No.: 30356152

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630320001	YGWA-1I	Water	03/18/20 15:37	03/24/20 09:10
2630320002	YGWA-1D	Water	03/19/20 10:33	03/24/20 09:10
2630320003	YGWA-2I	Water	03/19/20 12:37	03/24/20 09:10
2630320004	YGWA-3I	Water	03/19/20 11:00	03/24/20 09:10
2630320005	YGWA-3D	Water	03/19/20 12:10	03/24/20 09:10
2630320006	YGWA-14S	Water	03/18/20 15:50	03/24/20 09:10
2630320007	YGWA-30I	Water	03/19/20 14:20	03/24/20 09:10
2630320008	EB-1-3-19-20	Water	03/19/20 13:15	03/24/20 09:10
2630320009	FB-1-3-19-20	Water	03/19/20 15:15	03/24/20 09:10
2630320011	YGWC-26S	Water	03/19/20 16:47	03/24/20 09:10
2630320012	YGWC-26I	Water	03/20/20 10:47	03/24/20 09:10
2630320013	YGWC-27S	Water	03/20/20 12:00	03/24/20 09:10
2630320014	YGWC-27I	Water	03/20/20 12:05	03/24/20 09:10
2630320015	YGWC-28S	Water	03/19/20 14:55	03/24/20 09:10
2630320016	YGWC-28I	Water	03/19/20 16:00	03/24/20 09:10
2630320017	YGWC-29I	Water	03/20/20 10:12	03/24/20 09:10
2630320018	EB-2-3-19-20	Water	03/19/20 13:15	03/24/20 09:10
2630320019	FB-2-3-19-20	Water	03/19/20 11:15	03/24/20 09:10
2630320020	DUP-2	Water	03/20/20 00:00	03/24/20 09:10

## REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 2630320 PLANT YATES AP-2  
Pace Project No.: 30356152

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630320001	YGWA-1I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320002	YGWA-1D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320003	YGWA-2I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320004	YGWA-3I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320005	YGWA-3D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320006	YGWA-14S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320007	YGWA-30I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320008	EB-1-3-19-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320009	FB-1-3-19-20	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320011	YGWC-26S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320012	YGWC-26I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320013	YGWC-27S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320014	YGWC-27I	EPA 9315	LAL	1	PASI-PA

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## SAMPLE ANALYTE COUNT

Project: 2630320 PLANT YATES AP-2  
Pace Project No.: 30356152

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630320015	YGWC-28S	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2630320016	YGWC-28I	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320017	YGWC-29I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2630320018	EB-2-3-19-20	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2630320019	FB-2-3-19-20	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630320020	DUP-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

<b>Sample: YGWA-1I</b>	<b>Lab ID:</b> 2630320001	Collected: 03/18/20 15:37	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			CAS No.
Radium-226	EPA 9315	<b>0.458 ± 0.189 (0.249)</b> C:82% T:NA	pCi/L	03/31/20 20:48 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>-0.0547 ± 0.373 (0.880)</b> C:67% T:81%	pCi/L	04/10/20 12:40 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>0.458 ± 0.562 (1.13)</b>	pCi/L	04/13/20 09:59 7440-14-4
<b>Sample: YGWA-1D</b>	<b>Lab ID:</b> 2630320002	Collected: 03/19/20 10:33	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			CAS No.
Radium-226	EPA 9315	<b>0.806 ± 0.247 (0.246)</b> C:83% T:NA	pCi/L	03/31/20 17:54 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.298 ± 0.337 (0.706)</b> C:69% T:92%	pCi/L	04/10/20 12:40 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>1.10 ± 0.584 (0.952)</b>	pCi/L	04/13/20 09:59 7440-14-4
<b>Sample: YGWA-2I</b>	<b>Lab ID:</b> 2630320003	Collected: 03/19/20 12:37	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			CAS No.
Radium-226	EPA 9315	<b>0.376 ± 0.212 (0.355)</b> C:72% T:NA	pCi/L	03/31/20 20:48 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.339 ± 0.375 (0.786)</b> C:69% T:90%	pCi/L	04/10/20 12:40 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>0.715 ± 0.587 (1.14)</b>	pCi/L	04/13/20 09:59 7440-14-4

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

<b>Sample: YGWA-3I</b>	<b>Lab ID: 2630320004</b>	Collected: 03/19/20 11:00	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>1.58 ± 0.522 (0.389)</b> C:83% T:NA	pCi/L	04/01/20 08:16 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.620 ± 0.400 (0.763)</b> C:69% T:90%	pCi/L	04/10/20 12:40 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>2.20 ± 0.922 (1.15)</b>	pCi/L	04/13/20 09:59 7440-14-4
<hr/>				
<b>Sample: YGWA-3D</b>	<b>Lab ID: 2630320005</b>	Collected: 03/19/20 12:10	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>2.10 ± 0.603 (0.282)</b> C:84% T:NA	pCi/L	04/01/20 08:17 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>1.86 ± 0.608 (0.838)</b> C:69% T:83%	pCi/L	04/10/20 12:41 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>3.96 ± 1.21 (1.12)</b>	pCi/L	04/13/20 09:59 7440-14-4
<hr/>				
<b>Sample: YGWA-14S</b>	<b>Lab ID: 2630320006</b>	Collected: 03/18/20 15:50	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>0.207 ± 0.201 (0.349)</b> C:85% T:NA	pCi/L	04/01/20 08:03 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>-0.0581 ± 0.332 (0.784)</b> C:70% T:91%	pCi/L	04/10/20 12:41 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>0.207 ± 0.533 (1.13)</b>	pCi/L	04/13/20 09:59 7440-14-4

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

<b>Sample: YGWA-30I</b>	<b>Lab ID: 2630320007</b>	Collected: 03/19/20 14:20	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
		Pace Analytical Services - Greensburg		
Radium-226	EPA 9315	<b>0.328 ± 0.151 (0.193)</b> C:93% T:NA	pCi/L	03/31/20 17:55 13982-63-3
		Pace Analytical Services - Greensburg		
Radium-228	EPA 9320	<b>0.672 ± 0.399 (0.740)</b> C:67% T:95%	pCi/L	04/10/20 12:41 15262-20-1
		Pace Analytical Services - Greensburg		
Total Radium	Total Radium Calculation	<b>1.000 ± 0.550 (0.933)</b>	pCi/L	04/13/20 09:59 7440-14-4

<b>Sample: EB-1-3-19-20</b>	<b>Lab ID: 2630320008</b>	Collected: 03/19/20 13:15	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
		Pace Analytical Services - Greensburg		
Radium-226	EPA 9315	<b>0.311 ± 0.236 (0.354)</b> C:86% T:NA	pCi/L	04/01/20 08:09 13982-63-3
		Pace Analytical Services - Greensburg		
Radium-228	EPA 9320	<b>0.134 ± 0.397 (0.892)</b> C:71% T:68%	pCi/L	04/10/20 12:41 15262-20-1
		Pace Analytical Services - Greensburg		
Total Radium	Total Radium Calculation	<b>0.445 ± 0.633 (1.25)</b>	pCi/L	04/13/20 09:59 7440-14-4

<b>Sample: FB-1-3-19-20</b>	<b>Lab ID: 2630320009</b>	Collected: 03/19/20 15:15	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
		Pace Analytical Services - Greensburg		
Radium-226	EPA 9315	<b>0.286 ± 0.308 (0.632)</b> C:91% T:NA	pCi/L	04/01/20 08:09 13982-63-3
		Pace Analytical Services - Greensburg		
Radium-228	EPA 9320	<b>0.251 ± 0.383 (0.827)</b> C:67% T:77%	pCi/L	04/10/20 12:41 15262-20-1
		Pace Analytical Services - Greensburg		
Total Radium	Total Radium Calculation	<b>0.537 ± 0.691 (1.46)</b>	pCi/L	04/13/20 10:04 7440-14-4

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

<b>Sample: YGWC-26S</b>	<b>Lab ID:</b> 2630320011	Collected: 03/19/20 16:47	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>0.437 ± 0.346 (0.615)</b> C:68% T:NA	pCi/L	04/01/20 08:09 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.359 ± 0.391 (0.817)</b> C:69% T:80%	pCi/L	04/10/20 12:41 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>0.796 ± 0.737 (1.43)</b>	pCi/L	04/13/20 10:04 7440-14-4
<hr/>				
<b>Sample: YGWC-26I</b>	<b>Lab ID:</b> 2630320012	Collected: 03/20/20 10:47	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>0.574 ± 0.386 (0.653)</b> C:73% T:NA	pCi/L	04/01/20 08:09 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>1.46 ± 0.534 (0.759)</b> C:68% T:77%	pCi/L	04/10/20 12:41 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>2.03 ± 0.920 (1.41)</b>	pCi/L	04/13/20 10:04 7440-14-4
<hr/>				
<b>Sample: YGWC-27S</b>	<b>Lab ID:</b> 2630320013	Collected: 03/20/20 12:00	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>0.517 ± 0.309 (0.452)</b> C:88% T:NA	pCi/L	04/01/20 08:09 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.983 ± 0.411 (0.623)</b> C:69% T:82%	pCi/L	04/10/20 12:42 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>1.50 ± 0.720 (1.08)</b>	pCi/L	04/13/20 10:04 7440-14-4

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

<b>Sample: YGWC-27I</b>	<b>Lab ID:</b> 2630320014	Collected: 03/20/20 12:05	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>3.48 ± 0.907 (0.698)</b> C:72% T:NA	pCi/L	04/01/20 08:09 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.654 ± 0.397 (0.725)</b> C:67% T:81%	pCi/L	04/10/20 12:42 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>4.13 ± 1.30 (1.42)</b>	pCi/L	04/13/20 10:04 7440-14-4
<hr/>				
<b>Sample: YGWC-28S</b>	<b>Lab ID:</b> 2630320015	Collected: 03/19/20 14:55	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>0.331 ± 0.270 (0.478)</b> C:88% T:NA	pCi/L	04/01/20 08:09 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.683 ± 0.380 (0.682)</b> C:70% T:88%	pCi/L	04/10/20 12:42 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>1.01 ± 0.650 (1.16)</b>	pCi/L	04/13/20 10:04 7440-14-4
<hr/>				
<b>Sample: YGWC-28I</b>	<b>Lab ID:</b> 2630320016	Collected: 03/19/20 16:00	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>0.550 ± 0.334 (0.488)</b> C:80% T:NA	pCi/L	04/01/20 08:09 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.363 ± 0.327 (0.660)</b> C:77% T:78%	pCi/L	04/10/20 12:42 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>0.913 ± 0.661 (1.15)</b>	pCi/L	04/13/20 10:04 7440-14-4

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

<b>Sample: YGWC-29I</b>	<b>Lab ID: 2630320017</b>	Collected: 03/20/20 10:12	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>1.01 ± 0.451 (0.557)</b> <b>C:82% T:NA</b>	pCi/L	04/01/20 08:09 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.411 ± 0.298 (0.567)</b> <b>C:76% T:83%</b>	pCi/L	04/10/20 12:42 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>1.42 ± 0.749 (1.12)</b>	pCi/L	04/13/20 10:04 7440-14-4

<b>Sample: EB-2-3-19-20</b>	<b>Lab ID: 2630320018</b>	Collected: 03/19/20 13:15	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>0.520 ± 0.337 (0.498)</b> <b>C:73% T:NA</b>	pCi/L	04/01/20 08:09 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.198 ± 0.300 (0.646)</b> <b>C:74% T:85%</b>	pCi/L	04/10/20 12:42 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>0.718 ± 0.637 (1.14)</b>	pCi/L	04/13/20 10:04 7440-14-4

<b>Sample: FB-2-3-19-20</b>	<b>Lab ID: 2630320019</b>	Collected: 03/19/20 11:15	Received: 03/24/20 09:10	Matrix: Water
PWS:	Site ID:	Sample Type:		
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed
	Pace Analytical Services - Greensburg			
Radium-226	EPA 9315	<b>0.493 ± 0.330 (0.531)</b> <b>C:79% T:NA</b>	pCi/L	04/01/20 08:10 13982-63-3
	Pace Analytical Services - Greensburg			
Radium-228	EPA 9320	<b>0.267 ± 0.338 (0.716)</b> <b>C:77% T:77%</b>	pCi/L	04/10/20 12:42 15262-20-1
	Pace Analytical Services - Greensburg			
Total Radium	Total Radium Calculation	<b>0.760 ± 0.668 (1.25)</b>	pCi/L	04/13/20 10:04 7440-14-4

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

**Sample: DUP-2**      **Lab ID: 2630320020**      Collected: 03/20/20 00:00      Received: 03/24/20 09:10      Matrix: Water

PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.702 ± 0.349 (0.439)</b> <b>C:83% T:NA</b>	pCi/L	04/01/20 08:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.572 ± 0.358 (0.668)</b> <b>C:77% T:86%</b>	pCi/L	04/10/20 12:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.27 ± 0.707 (1.11)</b>	pCi/L	04/13/20 10:04	7440-14-4	

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

QC Batch:	390093	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008, 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018, 2630320019, 2630320020		

METHOD BLANK: 1889261 Matrix: Water

Associated Lab Samples: 2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008, 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018, 2630320019, 2630320020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.212 ± 0.150 (0.261) C:87% T:NA	pCi/L	03/31/20 17:53	

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: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

QC Batch:	390094	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg
Associated Lab Samples:	2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008, 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018, 2630320019, 2630320020		

METHOD BLANK: 1889262 Matrix: Water

Associated Lab Samples: 2630320001, 2630320002, 2630320003, 2630320004, 2630320005, 2630320006, 2630320007, 2630320008, 2630320009, 2630320011, 2630320012, 2630320013, 2630320014, 2630320015, 2630320016, 2630320017, 2630320018, 2630320019, 2630320020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.941 ± 0.434 (0.732) C:71% T:89%	pCi/L	04/10/20 12:40	

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: 2630320 PLANT YATES AP-2

Pace Project No.: 30356152

### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

Workorder: 2630320 Workorder Name: PLANT YATES AP-2

State Of Origin: GA

Cert. Needed:  Yes

Owner Received Date:

21/03/2020

Results Requested By:

4/3/2020

Pace Analytical  
www.paceanalyticals.com  
21/03/2020

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

Subcontractor:

For:

From:

To:

Date:

Time:

Sample ID:

Sample Name:

Sample Type:

Sample Date:

Sample Time:

Sample Location:

Sample Notes:

Sample Status:

Sample Lab:

Sample Date:

Sample Time:

Sample Notes:

Sample Status:

Sample Lab:

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Sample Date:

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Sample Notes:

Sample Status:

Sample Lab:

Sample Date:

Sample Time:

## Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

Pace Analytical  
www.paceanalytical.com

Workorder: 2630320 Workorder Name: PLANT YATES AP-2

State Of Origin: GA

Cert. Needed:  Yes

No

Owner Received Date: 3/20/2020

Results Requested By: 4/3/2020

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

RAD 9315

RAD 9320

Sample ID	Description	Sample Type	Storage Temp	Preservative	Notes
20 DJP-2	PS	3/20/2020 00:00	2630320020	Water	HNO3
21					
22					
23					
24					

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>Kevin Herring</i>	3/23/2020	<i>John Pace</i>	3-24-20 9:15
2				
3				

Cooler Temperature on Receipt	MM °C	Custody Seal Y or N	Received on Ice Y or N	Samples Intact Y or N
1				
2				
3				

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

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

# Pittsburgh Lab Sample Condition Upon Receipt



Client Name:

Pace NC

Project # 30356152

Courier:  FedEx  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_  
 Tracking #: 1657 9507 0841

Label	NL
LIMS Login	NL

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

Thermometer Used *N/A*

Type of Ice: Wet Blue *None*

Cooler Temperature Observed Temp \_\_\_\_\_ °C Correction Factor: \_\_\_\_\_ °C Final Temp: \_\_\_\_\_ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
Chain of Custody Present:	/			10DZ191	DL 3-24-20
Chain of Custody Filled Out:	/			1.	
Chain of Custody Relinquished:	/			2.	
Sampler Name & Signature on COC:				3.	
Sample Labels match COC: -Includes date/time/ID	/			4.	
Matrix: <i>WT</i>				5.	
Samples Arrived within Hold Time:	/			6.	
Short Hold Time Analysis (<72hr remaining):	/			7.	
Rush Turn Around Time Requested:	/			8.	
Sufficient Volume:	/			9.	
Correct Containers Used: -Pace Containers Used:	/			10.	
Containers Intact:	/			11.	
Orthophosphate field filtered		/		12.	
Hex Cr Aqueous sample field filtered		/		13.	
Organic Samples checked for dechlorination:	/			14.	
Filtered volume received for Dissolved tests		/		15.	
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	/			16.	<i>PMR</i>
All containers meet method preservation requirements.	/				Initial when completed: <i>DL</i> Date/time of preservation
					Lot # of added preservative
Headspace in VOA Vials (>6mm):		/		17.	
Trip Blank Present:		/		18.	
Trip Blank Custody Seals Present			/		
Rad Samples Screened < 0.5 mrem/hr	/			Initial when completed: <i>DL</i> Date: 3-24-20	

## Client Notification/ Resolution:

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Contacted By: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

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

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

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



## Quality Control Sample Performance Assessment

Face Analytical<sup>™</sup>

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

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

<b>Method Blank Assessment</b> <table border="1"> <tr> <td>MB Sample ID:</td> <td>1889261</td> </tr> <tr> <td>MB concentration:</td> <td>0.212</td> </tr> <tr> <td>M/B Counting Uncertainty:</td> <td>0.146</td> </tr> <tr> <td>MB MDC:</td> <td>0.261</td> </tr> <tr> <td>MB Numerical Indicator:</td> <td>2.84</td> </tr> <tr> <td>MB Status vs Numerical Indicator:</td> <td>N/A</td> </tr> <tr> <td>MB Status vs. MDC:</td> <td>Pass</td> </tr> </table>		MB Sample ID:	1889261	MB concentration:	0.212	M/B Counting Uncertainty:	0.146	MB MDC:	0.261	MB Numerical Indicator:	2.84	MB Status vs Numerical Indicator:	N/A	MB Status vs. MDC:	Pass	<b>Sample Matrix Spike Control Assessment</b> <table border="1"> <tr> <td>Sample Collection Date:</td> <td>MS/MSD 1</td> </tr> <tr> <td>Sample I.D.:</td> <td>MS/MSD 2</td> </tr> <tr> <td>Sample MS I.D.:</td> <td></td> </tr> <tr> <td>Sample MSD I.D.:</td> <td></td> </tr> </table>	Sample Collection Date:	MS/MSD 1	Sample I.D.:	MS/MSD 2	Sample MS I.D.:		Sample MSD I.D.:													
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# Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*Batch must be re-prepped due to unacceptable precision.*

*Clix*  
*Off*

*WAM 4/1/20*

*Qc 4/1/20*

*TAR\_53143\_W*



## Quality Control Sample Performance Assessment

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

Method Blank Assessment		Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Test:	Ra-226	Sample I.D.:		Sample Collection Date:	
Analyst:	LAL	Sample I.D.:		Sample MS I.D.:	
Date:	3/31/2020	Sample I.D.:		Sample MSD I.D.:	
Worklist:	53-43	MS/MSD Decay Corrected Spike Concentration (pCi/mL):		Spike I.D.:	
Matrix:	DW	Spike Volume Used in MS (mL):			
MB Sample ID:	1889261	Spike Volume Used in MSD (mL):			
MB concentration:	0.212	MS Aliquot (L, g, F):			
M/B Counting Uncertainty:	0.146	MS Target Conc.(pCi/L, g, F):			
MB MDC:	0.261	MSD Aliquot (L, g, F):			
MB Numerical Performance Indicator:	2.84	MSD Target Conc. (pCi/L, g, F):			
MB Status vs Numerical Indicator:	N/A	MS Spike Uncertainty (calculated):			
MB Status vs. MDC:	Pass	MSD Spike Uncertainty (calculated):			
Laboratory Control Sample Assessment		Sample Result Counting Uncertainty (pCi/L, g, F):		Sample Result Counting Uncertainty (pCi/L, g, F):	
Count Date:	LCS53143	Sample Matrix Spike Result:		Sample Matrix Spike Result:	
	4/1/2020	19-033		Sample Spike Result Counting Uncertainty (pCi/L, g, F):	
Spike I.D.:	19-033	24.049		Sample Matrix Spike Duplicate Result:	
Decay Corrected Spike Concentration (pCi/mL):	0.10	0.10		Sample Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Volume Used (mL):	0.505	0.516		MS Numerical Performance Indicator:	
Aliquot Volume (L, g, F):	4.764	4.659		MSD Numerical Performance Indicator:	
Target Conc. (pCi/L, g, F):	0.057	0.056		MS Percent Recovery:	
Uncertainty (Calculated):	0.829	5.369		MSD Percent Recovery:	
Result (pCi/L, g, F):	0.783	0.817		MS Status vs Numerical Indicator:	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.16	1.70		MSD Status vs Numerical Indicator:	
Numerical Performance Indicator:	101.35%	115.24%		MS Status vs Recovery:	
Percent Recovery:	N/A	N/A		MS/MSD Upper % Recovery:	
Status vs Numerical Indicator:	Pass	Pass		MS/MSD Lower % Recovery:	
Upper % Recovery:	125%	125%		MS/MSD Duplicate Status vs RPD:	
Lower % Recovery Limits:	75%	75%			
Duplicate Sample Assessment		Matrix Spike/Matrix Spike Duplicate Sample Assessment		Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	LCS53143	Enter Duplicate sample IDs if other than LCS/LCSD in the space below:		Sample I.D.:	
Duplicate Sample I.D.:	LCS53143			Sample MS I.D.:	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.829			Sample MSD I.D.:	
Sample Duplicate Result (pCi/L, g, F):	0.783			Sample Matrix Spike Result:	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	5.369			Sample Matrix Spike Duplicate Result:	
Are sample and/or duplicate results below RL?	NO			Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	-0.937			Sample Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	12.83%			Duplicate Numerical Performance Indicator:	
Duplicate Status vs Numerical Indicator:	N/A			MS/MSD Duplicate Status vs Numerical Indicator:	
Duplicate Status vs RPD:	PASS			MS/MSD Duplicate Status vs RPD:	
% RPD Limit:	25%			% RPD Limit:	

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

Comments:

van4/1/20

Cur 4/1/20  
TAR\_53143\_W



## Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228	Sample Matrix Spike Control Assessment	MS/MSD 1
Analyst:	V/AL	Sample Collection Date:	MS/MSD 2
Date:	3/31/2020	Sample I.D.:	
Worklist:	53144	Sample MS. I.D.:	
Matrix:	WT	Sample MSD. I.D.:	
Method Blank Assessment			
MB Sample ID:	1889262	MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
MB concentration:	0.941	Spike Volume Used in MS (mL):	
MB 2 Sigma CSU:	0.434	Spike Volume Used in MSD (mL):	
MB MDC:	0.732	MS Aliquot (L, g, F):	
MB Numerical Performance Indicator:	4.26	MS Target Conc.(pCi/L, g, F):	
MB Status vs Numerical Indicator:	Fail*	MS Aliquot (L, g, F):	
MB Status vs. MDC:	See Comment*	MSD Target Conc. (pCi/L, g, F):	
Laboratory Control Sample Assessment			
LCSID (Y or N)?	Y	MS Spike Uncertainty (calculated):	
LCSID3144	LCSID53144	MSD Spike Uncertainty (calculated):	
Count Date:	4/10/2020	Sample Result:	
Spike I.D.:	19-057	Sample Result 2 Sigma CSU (pCi/L, g, F):	
Decay Corrected Spike Concentration (pCi/mL):	34.538	Sample Matrix Spike Result:	
Volume Used (mL):	0.10	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Aliquot Volume (L, g, F):	0.804	Sample Matrix Spike Duplicate Result:	
Target Conc. (pCi/L, g, F):	4.295	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Uncertainty (Calculated):	0.303	MS Numerical Performance Indicator:	
Result (pCi/L, g, F):	3.893	MS percent Recovery:	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.908	MSD Percent Recovery:	
Numerical Performance Indicator:	-0.82	MS Status vs Numerical Indicator:	
Percent Recovery:	90.65%	MSD Status vs Numerical Indicator:	
Status vs Numerical Indicator:	N/A	MS Status vs Recovery:	
Pass	Pass	MSD Status vs Recovery:	
Upper % Recovery Limits:	135%	MS/MSD Upper % Recovery Limits:	
Lower % Recovery Limits:	60%	MS/MSD Lower % Recovery Limits:	
Duplicate Sample Assessment			
Sample I.D.:	LCSID3144	Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Duplicate Sample I.D.:	LCSID53144	Sample I.D.:	
Sample Result (pCi/L, g, F):	3.893	Sample MS. I.D.:	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.908	Sample MSD. I.D.:	
Sample Duplicate Result (pCi/L, g, F):	5.180	Sample Matrix Spike Result:	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):		Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?		Sample Matrix Spike Duplicate Result:	
Duplicate Numerical Performance Indicator:		Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:		Duplicate Numerical Performance Indicator:	
Duplicate Status vs Numerical Indicator:		(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
Pass	Pass	MS/MSD Duplicate Status vs Numerical Indicator:	
% RPD Limit:	36%	MS/MSD Duplicate Status vs RPD:	

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

Comments:

\*The method blank result is below the reporting limit for this analysis and is acceptable.

**LEVEL 2A LABORATORY DATA VALIDATIONS**

**Plant Yates Ash Pond-2**

**March 2020**

## **Georgia Power Company – Plant Yates Ash Pond-2**

### **Quality Control Review of Analytical Data – March 2020**

This narrative presents results of the Quality Control (QC) data review performed on analytical data submitted by Pace Analytical Services, Atlanta, Asheville, and Pittsburgh for groundwater samples collected at Plant Yates AP-2 between March 18, 2020 and March 20, 2020. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision-making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1 of this Appendix. SDG 2630320 was revised by the laboratory to correct the DUP-1 sample data that were switched with SDG 2630255 Gypsum Storage.

In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detected monitoring constituents listed in 40 CFR, Part 257, Appendix III and assessment monitoring constituents listed in 40 CFR, Part 257, Appendix IV. Test methods included Inductively Coupled Plasma (USEAP 6010D), Inductively Coupled Plasma – Mass Spectrometry (USEPA Method 6020B), Determination of Inorganic Anions (USEPA Method 300.0), Solids in Water (Standard Methods 2540C), Radium-226 (USEPA 9315), and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0)<sup>1</sup> and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017)<sup>2</sup>. The review included an assessment of the results for completeness, precision (laboratory duplicate recoveries and matrix spike/matrix spike duplicate recoveries), accuracy (laboratory control samples and matrix spike samples), and blank contamination (field, equipment, and laboratory blanks). Sample receipt conditions, holding times, and COCs were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytical methodology, method-specific criteria or professional judgment were used.

## **DATA QUALITY OBJECTIVES**

**Laboratory Precision:** Laboratory goals for precision were met, with the exception of Radium-226 on YGWC-26S (2630320011) as described in the qualifications section below.

**Field Precision:** Field goals for precision were met, with the exceptions of Boron and Total Dissolved Solids (TDS) on YGWA-14S (2630320006) and DUP-1 (2630255009) as described in the qualifications section below.

**Accuracy:** Laboratory goals for accuracy were met.

**Detection Limits:** Project goals for detection limits were met.

**Completeness:** There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** Holding time requirements were met.

## **QUALIFICATIONS**

In general, chemical results for the samples collected at the site were qualified on the basis of low precision or low accuracy or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the validation process:

**J:** The analyte was positively identified above the method detection limit; however, the associated numerical value is the approximate concentration of the analyte in the sample

**ND:** The analyte was not detected above the method detection limit

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. The applied qualifications may not have been required for all samples collected at the site. A summary of sample qualifications can be found in Table 2 of this Appendix.

- Samples YGWA-14S (2630320006) and DUP-1 (2630255009) were qualified as estimated (J) for Boron and TDS as the respective field relative percent differences (RPDs) exceeded QC criteria (49.06% and 30.30% above limit of 25).

- Sample YGWC-26S (2630320011) was qualified as estimated (J) for Radium-226 as the laboratory RPD exceeded QC criteria (54.35% above limit of 25).
- Certain antimony results in SDG 2630320 were qualified as non-detect (ND) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, the method detection limit (MDL) was raised to the sample result as part of the qualification process.
- Certain radium results in SDG 2630320 were qualified as non-detect (ND) due to the analyte being detected at a similar concentration in an associated blank sample. As shown in Table 2, the minimum detectable concentration (MDC) was raised to the sample result as part of the qualification process.

Atlantic Coast Consulting, Inc. reviewed the laboratory data from the Plant Yates Ash Pond-2 sampled between March 18, 2020 and March 20, 2020 in accordance with the analytical methods, the laboratory-specified QC criteria, and the guidelines. As described above, the results were acceptable for project use.

## REFERENCES

<sup>1</sup>USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy, Revision 2.0

<sup>2</sup>USEPA, January 2017, National Office of Superfund Remediation and Technology Innovation, National Functional Guidelines for Inorganic Superfund Methods Data Review, Revision 0.0

TABLE 1  
Georgia Power Company – Plant Yates Ash Pond-2  
Sample Summary Table – March 2020

SDG	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analyses			
						Metals (6010D, 6020B)	Anions (300.0)	TDS (SM 2540C)	Radium-226/-228 (9315, 9320)
30320	YGWA-1I	3/18/2020	2630320001	GW		X	X	X	X
30320	YGWA-1D	3/19/2020	2630320002	GW		X	X	X	X
30320	YGWA-2I	3/19/2020	2630320003	GW		X	X	X	X
30320	YGWA-3I	3/19/2020	2630320004	GW		X	X	X	X
30320	YGWA-3D	3/19/2020	2630320005	GW		X	X	X	X
30320	YGWA-14S	3/18/2020	2630320006	GW		X	X	X	X
30320	YGWA-30I	3/19/2020	2630320007	GW		X	X	X	X
30320	EB-1-3-19-20	3/19/2020	2630320008	WQ	EB	X	X	X	X
30320	FB-1-3-19-20	3/19/2020	2630320009	WQ	FB	X	X	X	X
30255	DUP-1	3/18/2020	2630255009	GW	FD (YGWA-14S)	X	X	X	
30320	DUP-1	3/18/2020	2630320010	GW	FD (YGWA-14S)				X
30320	YGWC-26S	3/19/2020	2630320011	GW		X	X	X	X
30320	YGWC-26I	3/20/2020	2630320012	GW		X	X	X	X
30320	YGWC-27S	3/20/2020	2630320013	GW		X	X	X	X
30320	YGWC-27I	3/20/2020	2630320014	GW		X	X	X	X
30320	YGWC-28S	3/19/2020	2630320015	GW		X	X	X	X
30320	YGWC-28I	3/19/2020	2630320016	GW		X	X	X	X
30320	YGWC-29I	3/20/2020	2630320017	GW		X	X	X	X
30320	EB-2-3-19-20	3/19/2020	2630320018	WQ	EB	X	X	X	X
30320	FB-2-3-19-20	3/19/2020	2630320019	WQ	FB	X	X	X	X
30320	DUP-2	3/20/2020	2630320020	GW	FD (YGWC-26I)	X	X	X	X

Abbreviations:

EB – Equipment Blank  
 FB – Field Blank  
 FD – Field Duplicate  
 GW – Groundwater  
 QC – Quality Control  
 TDS – Total Dissolved Solids  
 WQ – Water Quality Control

TABLE 2  
 Georgia Power Company – Plant Yates Ash Pond-2  
 Qualifier Summary Table – March 2020

SDG	Field Identification	Constituent	New RL	New MDL or MDC	Qualifier	Reason
30320	YGWA-14S	Boron			J	RPD exceeds field goal
30255	DUP-1	Boron			J	RPD exceeds field goal
30320	YGWA-14S	TDS			J	RPD exceeds field goal
30255	DUP-1	TDS			J	RPD exceeds field goal
30320	YGWA-1I	Antimony		0.0004	ND	Blank detection
30320	YGWA-2I	Antimony		0.0003	ND	Blank detection
30320	YGWA-3D	Antimony		0.00064	ND	Blank detection
30320	YGWC-26S	Antimony		0.0017	ND	Blank detection
30320	YGWC-26I	Antimony		0.00059	ND	Blank detection
30320	YGWC-27S	Antimony		0.0003	ND	Blank detection
30320	YGWC-27I	Antimony		0.00033	ND	Blank detection
30320	YGWA-1I	Radium-228		0.880	ND	Blank detection
30320	YGWA-2I	Radium-226		0.355	ND	Blank detection
30320	YGWA-2I	Radium-228		0.786	ND	Blank detection
30320	YGWA-3I	Radium-226		0.389	ND	Blank detection
30320	YGWA-3I	Radium-228		0.763	ND	Blank detection
30320	YGWA-3D	Radium-226		0.282	ND	Blank detection
30320	YGWA-3D	Radium-228		0.838	ND	Blank detection
30320	YGWA-14S	Radium-226		0.349	ND	Blank detection
30320	YGWA-14S	Radium-228		0.784	ND	Blank detection
30320	YGWA-30I	Radium-228		0.740	ND	Blank detection
30320	YGWC-26S	Radium-226		0.615	ND	Blank detection
30320	YGWC-26S	Radium-228		0.817	ND	Blank detection
30320	YGWC-26I	Radium-226		0.653	ND	Blank detection
30320	YGWC-26I	Radium-228		0.759	ND	Blank detection
30320	YGWC-27S	Radium-226		0.452	ND	Blank detection
30320	YGWC-27I	Radium-226		0.698	ND	Blank detection
30320	YGWC-28S	Radium-226		0.478	ND	Blank detection
30320	YGWC-28I	Radium-226		0.488	ND	Blank detection
30320	YGWC-29I	Radium-226		0.557	ND	Blank detection
30320	YGWC-26S	Radium-226			J	RPD exceeds laboratory goal

Abbreviations:

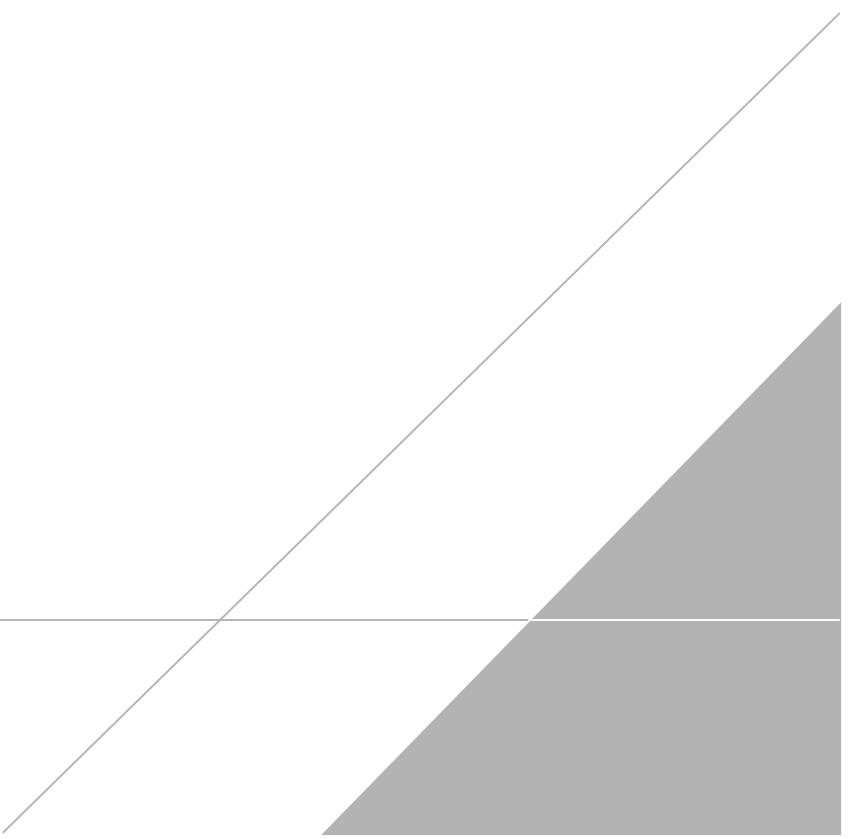
MDC – Minimum Detectable Concentration  
 MS/MSD – Matrix Spike / Matrix Spike Duplicate  
 MDL – Method Detection Limit  
 RL – Reporting Limit  
 RPD – Relative Percent Difference  
 SDG – Sample Delivery Group  
 TDS – Total Dissolved Solids

Qualifiers:

J – Estimated Result  
 ND – Non-Detect Result

# APPENDIX C

## Historical Groundwater Analytical Data



## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-1I									
		YGWA-1I (060116)	YGWA-1I (072516)	YGWA-1I (091316)	YGWA-1I (110416)	YGWA-1I (011617)	YGWA-1I (030217)	YGWA-1I (042717)	YGWA-1I (062717)		
		6/1/2016	7/25/2016	9/13/2016	11/4/2016	1/16/2017	3/2/2017	4/27/2017	6/27/2017		
Appendix III	pH	SU	6.33	6.21	6.16	6.29	6.29	6.28	6.09	6.21	5.98
	Boron	mg/l	< 0.05	< 0.1	< 0.1	< 0.1	< 0.04	< 0.04	< 0.04	<b>0.006 J</b>	<b>0.0071 J</b>
	Calcium	mg/l	<b>2.5</b>	<b>2.16</b>	<b>2.21</b>	<b>2.67</b>	<b>2.45</b>	<b>2.57</b>	<b>2.38</b>	<b>2.36</b>	<b>2.21</b>
	Chloride	mg/l	<b>1.6</b>	<b>1.4</b>	<b>1.3</b>	<b>1.6</b>	<b>1.4</b>	<b>1.3</b>	<b>1.3</b>	<b>1.4</b>	<b>1.7</b>
	Fluoride	mg/l	< 0.2	<b>0.06 J</b>	< 0.3	< 0.3	< 0.3	< 0.3	<b>0.01 J</b>	< 0.3	< 0.3
	Sulfate	mg/l	<b>4.2</b>	<b>3.7</b>	<b>5.2</b>	<b>5</b>	<b>7.9</b>	<b>7.4</b>	<b>7.4</b>	<b>6.4</b>	<b>5.9</b>
	TDS	mg/l	<b>54</b>	<b>48</b>	<b>67</b>	<b>60</b>	<b>65</b>	<b>61</b>	<b>31</b>	<b>42</b>	<b>58</b>
Appendix IV	Antimony	mg/l	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	<b>0.0017 J</b>	< 0.003	NA
	Arsenic	mg/l	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Barium	mg/l	<b>0.012</b>	<b>0.0091 J</b>	<b>0.008 J</b>	<b>0.0067 J</b>	<b>0.0096 J</b>	<b>0.0112</b>	<b>0.0106</b>	<b>0.0092 J</b>	NA
	Beryllium	mg/l	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA
	Cadmium	mg/l	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
	Chromium	mg/l	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0004 J</b>	< 0.01	< 0.01	NA
	Cobalt	mg/l	<b>0.00082 J</b>	<b>0.0008 J</b>	<b>0.0009 J</b>	<b>0.0025 J</b>	<b>0.0027 J</b>	<b>0.0022 J</b>	<b>0.0018 J</b>	<b>0.0023 J</b>	NA
	Lead	mg/l	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Lithium	mg/l	< 0.005	<b>0.002 J</b>	< 0.05	< 0.05	<b>0.0023 J</b>	<b>0.0025 J</b>	<b>0.0027 J</b>	<b>0.0024 J</b>	NA
	Mercury	mg/l	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA
	Molybdenum	mg/l	<b>0.012 J</b>	<b>0.0098 J</b>	<b>0.01 J</b>	<b>0.01</b>	<b>0.0086 J</b>	<b>0.01</b>	<b>0.0101</b>	<b>0.0093 J</b>	NA
	Combined Radium - 226/228	pCi/l	<b>0.42</b>	<b>1.83</b>	<b>0.841</b>	0.166 U	0	0.504 U	0.593 U	0.657 U	NA
	Selenium	mg/l	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Thallium	mg/l	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
Field	Conductivity	µS/cm	67.47	60.2	59.02	70	74.5	68.5	69.6	66.4	NA
	Dissolved Oxygen	mg/l	3.01	3.42	3.02	4.44	1.84	1.82	2.08	2.12	NA
	Oxidation Reduction Potential	mV	28.9	46.9	-100.42	98.8	-40.1	51.9	-35.3	42.7	NA
	Temperature	C	18.34	20.31	18.7	20.85	15.77	15.13	21.75	19.94	NA
	Turbidity	ntu	2.52	0	2.06	6.6	2.35	1.52	1.68	2.61	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-1I	YGWA-1I	YGWA-1I	YGWA-1I	YGWA-1I	YGWA-1I	YGWA-1I	YGWA-1I
		YGWA-1I (032718)	YGWA-1I (060618)	YGWA-1I (100118)	YGWA-1I (022719)	YGWA-1I (032819)	YGWA-1I (092419)	YGWA-1I (021020)	YGWA-1I (031820)
		3/27/2018	6/6/2018	10/1/2018	2/27/2019	3/28/2019	9/24/2019	2/10/2020	3/18/2020
Appendix III	pH	SU	6.25	6.17	5.9	5.8	6.15	6.23	6.10
	Boron	mg/l	NA	< 0.04	<b>0.0049 J</b>	NA	< 0.04	<b>0.0055 J</b>	NA
	Calcium	mg/l	NA	<b>2.3</b>	<b>1.8</b>	NA	<b>2.2</b>	<b>2.3</b>	NA
	Chloride	mg/l	NA	<b>1.4</b>	<b>1.4</b>	NA	<b>1.5</b>	<b>1.3</b>	NA
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.050
	Sulfate	mg/l	NA	<b>4.4</b>	<b>4</b>	NA	<b>4.3</b>	<b>4.3</b>	NA
	TDS	mg/l	NA	<b>96</b>	<b>60</b>	NA	<b>87</b>	<b>54</b>	NA
Appendix IV	Antimony	mg/l	< 0.003	NA	NA	< 0.003	NA	NA	< 0.00027
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.00050 JB</b>	< 0.00035
	Barium	mg/l	< 0.01	<b>0.0082 J</b>	<b>0.0084 J</b>	<b>0.008 J</b>	<b>0.0082 J</b>	<b>0.0086 J</b>	<b>0.0091 J</b>
	Beryllium	mg/l	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003	< 0.000074
	Cadmium	mg/l	< 0.001	NA	NA	< 0.001	< 0.001	< 0.0025	< 0.00011
	Chromium	mg/l	< 0.01	NA	NA	< 0.01	<b>0.0021 J</b>	<b>0.0028 J</b>	< 0.00039
	Cobalt	mg/l	< 0.01	< 0.01	<b>0.00059 J</b>	<b>0.00064 J</b>	<b>0.00091 J</b>	<b>0.0013 J</b>	<b>0.0016 J</b>
	Lead	mg/l	< 0.005	NA	NA	< 0.005	NA	NA	< 0.000046
	Lithium	mg/l	<b>0.0023 J</b>	<b>0.0024 J</b>	<b>0.0023 J</b>	<b>0.0023 J</b>	<b>0.0022 J</b>	<b>0.0023 J</b>	<b>0.0024 J</b>
	Mercury	mg/l	< 0.0005	NA	NA	<b>0.000054 J</b>	< 0.0005	< 0.0005	< 0.00014
	Molybdenum	mg/l	<b>0.0074 J</b>	<b>0.0073 J</b>	<b>0.0076 J</b>	<b>0.0078 J</b>	<b>0.0082 J</b>	<b>0.0074 J</b>	<b>0.0062 J</b>
	Combined Radium - 226/228	pCi/l	0.39 U	<b>2.8</b>	1.06 U	0.637 U	0.125 U	0.949 U	<b>1.25</b>
	Selenium	mg/l	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.0013
	Thallium	mg/l	< 0.001	NA	NA	< 0.001	NA	NA	<b>0.000055 J</b>
Field	Conductivity	µS/cm	60.31	NA	NA	52.7	58.3	59.9	NA
	Dissolved Oxygen	mg/l	3.05	NA	NA	3.72	4.07	2.68	NA
	Oxidation Reduction Potential	mV	50.82	NA	NA	53.4	83.8	59.5	NA
	Temperature	C	16.26	NA	NA	15.93	17.17	25.33	NA
	Turbidity	ntu	1.32	NA	NA	2.54	2.7	1.95	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-1D									
		YGWA-1D (060116)	YGWA-1D (072616)	YGWA-1D (091316)	YGWA-1D (110116)	YGWA-1D (011117)	YGWA-1D (030217)	YGWA-1D (042717)	YGWA-1D (062717)	YGWA-1D (100317)	
		6/1/2016	7/26/2016	9/13/2016	11/1/2016	1/11/2017	3/2/2017	4/27/2017	6/27/2017	10/3/2017	
Appendix III	pH	SU	7.46	7.43	7.44	7.24	7.3	7.23	6.99	6.87	6.81
	Boron	mg/l	< 0.05	<b>0.0055 J</b>	< 0.1	<b>0.0086 J</b>	<b>0.0074 J</b>	<b>0.008 J</b>	<b>0.0066 J</b>	<b>0.0087 J</b>	<b>0.0072 J</b>
	Calcium	mg/l	<b>12</b>	<b>11</b>	<b>11.8</b>	<b>11</b>	<b>11.2</b>	<b>11</b>	<b>11.1</b>	<b>13.8</b>	<b>14</b>
	Chloride	mg/l	1.3	1.2	1.1	1.3	1.1	1	1	1.1	1.1
	Fluoride	mg/l	<b>0.12 J</b>	<b>0.08 J</b>	<b>0.11 J</b>	< 0.3	<b>0.05 J</b>	< 0.3	<b>0.04 J</b>	< 0.3	< 0.3
	Sulfate	mg/l	<b>5</b>	<b>5.4</b>	<b>2.9</b>	<b>3.9</b>	<b>3.7</b>	<b>4.6</b>	<b>5.2</b>	<b>5.9</b>	<b>6.6</b>
	TDS	mg/l	<b>120</b>	<b>94</b>	<b>105</b>	<b>44</b>	<b>107</b>	<b>98</b>	<b>116</b>	<b>89</b>	<b>119</b>
Appendix IV	Antimony	mg/l	< 0.0025	<b>0.001 J</b>	<b>0.001 J</b>	<b>0.0015 J</b>	< 0.003	<b>0.0004 J</b>	<b>0.0004 J</b>	< 0.003	NA
	Arsenic	mg/l	<b>0.0021</b>	<b>0.0016 J</b>	< 0.005	< 0.005	<b>0.0017 J</b>	<b>0.0014 J</b>	<b>0.0018 J</b>	<b>0.0018 J</b>	NA
	Barium	mg/l	<b>0.008</b>	<b>0.006 J</b>	<b>0.0084 J</b>	<b>0.0062 J</b>	<b>0.0069 J</b>	<b>0.0071 J</b>	<b>0.0064 J</b>	<b>0.0054 J</b>	NA
	Beryllium	mg/l	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA
	Cadmium	mg/l	< 0.0025	< 0.001	< 0.001	< 0.001	<b>0.0002 J</b>	< 0.001	< 0.001	< 0.001	NA
	Chromium	mg/l	<b>0.0035</b>	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0009 J</b>	< 0.01	< 0.01	NA
	Cobalt	mg/l	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Lead	mg/l	<b>0.00056 J</b>	< 0.005	<b>0.0001 J</b>	< 0.005	< 0.005	<b>0.0001 J</b>	< 0.005	< 0.005	NA
	Lithium	mg/l	<b>0.015</b>	<b>0.0135 J</b>	<b>0.0112 J</b>	<b>0.0163 J</b>	<b>0.0166 J</b>	<b>0.0159 J</b>	<b>0.0137 J</b>	<b>0.0094 J</b>	NA
	Mercury	mg/l	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA
	Molybdenum	mg/l	<b>0.014 J</b>	<b>0.0132</b>	<b>0.0127</b>	<b>0.0092 J</b>	<b>0.0093 J</b>	<b>0.0099 J</b>	<b>0.0103</b>	<b>0.0097 J</b>	NA
	Combined Radium - 226/228	pCi/l	0.321 U	0.707 U	<b>1.22</b>	0.805 U	0.705 U	0.251 U	<b>1.08</b>	1.02 U	NA
	Selenium	mg/l	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Thallium	mg/l	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
Field	Conductivity	µS/cm	161.82	155.2	151.18	156.8	164.5	159.1	161.8	158	NA
	Dissolved Oxygen	mg/l	0.07	0.19	0.27	0.36	0.54	0.31	0.2	0.29	NA
	Oxidation Reduction Potential	mV	-93	-87.5	-228.5	-113.2	-50.4	-53.7	-154.1	-24.6	NA
	Temperature	C	19.77	18.35	18.65	18.81	16.63	17.1	17.72	19.67	NA
	Turbidity	ntu	NA	4.01	2.66	4.68	1.91	4.62	1.15	2.61	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-1D	YGWA-1D	YGWA-1D	YGWA-1D	YGWA-1D	YGWA-1D	YGWA-1D	YGWA-1D	YGWA-1D
		YGWA-1D (032918)	YGWA-1D (060518)	YGWA-1D (100118)	YGWA-1D (022719)	YGWA-1D (032819)	YGWA-1D (092419)	YGWA-1D (021020)	YGWA-1D (031920)	YGWA-2I (091316)
		3/29/2018	6/5/2018	10/1/2018	2/27/2019	3/28/2019	9/24/2019	2/10/2020	3/19/2020	9/13/2016
Appendix III	pH	SU	7.38	7.16	6.8	6.84	6.99	7.07	7.20	7.03
	Boron	mg/l	NA	<b>0.0052 J</b>	<b>0.021 J</b>	NA	<b>0.005 J</b>	<b>0.0064 J</b>	NA	<b>0.0085 J</b>
	Calcium	mg/l	NA	<b>15.2 J</b>	<b>15.1</b>	NA	<b>13.3 J</b>	<b>15.8</b>	NA	<b>15.0</b>
	Chloride	mg/l	NA	<b>1.1</b>	<b>1.1</b>	NA	<b>1.4</b>	<b>1.1</b>	NA	<b>1.1</b>
	Fluoride	mg/l	< 0.3	<b>0.055 J</b>	< 0.3	<b>0.052 J</b>	<b>0.036 J</b>	<b>0.063 J</b>	<b>0.061 J</b>	<b>0.064 J</b>
	Sulfate	mg/l	NA	<b>6.4</b>	<b>5.6</b>	NA	<b>8</b>	<b>5.3</b>	NA	<b>10</b>
	TDS	mg/l	NA	<b>127</b>	<b>117</b>	NA	<b>87</b>	<b>124</b>	NA	<b>116</b>
Appendix IV	Antimony	mg/l	< 0.003	NA	NA	< 0.003	NA	NA	<b>0.00088 J</b>	< 0.00027
	Arsenic	mg/l	<b>0.0017 J</b>	<b>0.0013 J</b>	<b>0.0016 J</b>	<b>0.0015 J</b>	<b>0.00072 J</b>	<b>0.0014 J</b>	<b>0.0026 JB</b>	<b>0.00095 J</b>
	Barium	mg/l	< 0.01	<b>0.0069 J</b>	<b>0.0062 J</b>	<b>0.0074 J</b>	<b>0.0082 J</b>	<b>0.0072 J</b>	<b>0.0066 J</b>	<b>0.0076 J</b>
	Beryllium	mg/l	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003	< 0.000074	< 0.000074
	Cadmium	mg/l	< 0.001	NA	NA	< 0.001	< 0.001	< 0.0025	< 0.00011	< 0.00011
	Chromium	mg/l	< 0.01	NA	NA	< 0.01	< 0.01	<b>0.00072 J</b>	<b>0.00042 J</b>	<b>0.00084 J</b>
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.00030	< 0.00030
	Lead	mg/l	< 0.005	NA	NA	< 0.005	NA	NA	<b>0.000049 J</b>	<b>0.00012 J</b>
	Lithium	mg/l	<b>0.0078 J</b>	<b>0.0079 J</b>	<b>0.0053 J</b>	<b>0.0093 J</b>	<b>0.013 J</b>	<b>0.0046 J</b>	<b>0.011 J</b>	<b>0.013 J</b>
	Mercury	mg/l	< 0.0005	NA	NA	<b>0.000051 J</b>	<b>0.00004 J</b>	< 0.0005	< 0.00014	NA
	Molybdenum	mg/l	<b>0.0076 J</b>	<b>0.0092 J</b>	<b>0.0085 J</b>	<b>0.0087 J</b>	<b>0.0092 J</b>	<b>0.0072 J</b>	<b>0.0087 J</b>	<b>0.0088 J</b>
	Combined Radium - 226/228	pCi/l	0.503 U	0.771 U	0.783 U	1.21 U	1.13 U	1.22 U	<b>1.41</b>	<b>1.10</b>
	Selenium	mg/l	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.0013	< 0.0013
	Thallium	mg/l	< 0.001	NA	NA	< 0.001	NA	NA	< 0.000052	< 0.000052
Field	Conductivity	µS/cm	167.24	NA	NA	145.6	152.6	168.11	NA	NA
	Dissolved Oxygen	mg/l	0.25	NA	NA	0.14	0.27	0.34	NA	NA
	Oxidation Reduction Potential	mV	-93.82	NA	NA	-162.3	-95.3	33	NA	NA
	Temperature	C	16.45	NA	NA	15.88	16.29	26.15	NA	NA
	Turbidity	ntu	2.59	NA	NA	1.24	4.7	0.86	NA	2.7

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-2I									
		YGWA-2I (091416)	YGWA-2I (110416)	YGWA-2I (121516)	YGWA-2I (011617)	YGWA-2I (030317)	YGWA-2I (042817)	YGWA-2I (052617)	YGWA-2I (062817)	YGWA-2I (100317)	
		9/14/2016	11/4/2016	12/15/2016	1/16/2017	3/3/2017	4/28/2017	5/26/2017	6/28/2017	10/3/2017	
Appendix III	pH	SU	NA	7.12	7.24	7.24	7.22	7.21	7.13	7.06	6.99
	Boron	mg/l	< 0.1	< 0.1	<b>0.0107 J</b>	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
	Calcium	mg/l	<b>23.5</b>	<b>23.7</b>	<b>23.1</b>	<b>23.3</b>	<b>25.1</b>	<b>30.7</b>	<b>26.2</b>	<b>26.1</b>	<b>26.7</b>
	Chloride	mg/l	<b>1.1</b>	<b>1.4</b>	<b>2.9</b>	<b>0.98</b>	<b>1.1</b>	<b>0.91</b>	<b>0.93</b>	<b>1</b>	<b>1.2</b>
	Fluoride	mg/l	<b>0.08 J</b>	< 0.3	<b>0.06 J</b>	<b>0.1 J</b>	< 0.3	<b>0.06 J</b>	<b>0.09 J</b>	<b>0.11 J</b>	< 0.3
	Sulfate	mg/l	<b>9.4</b>	<b>13</b>	<b>1.8</b>	<b>11</b>	<b>8.8</b>	<b>10</b>	<b>12</b>	<b>11</b>	<b>7.9</b>
	TDS	mg/l	<b>152</b>	<b>148</b>	<b>191</b>	<b>180</b>	<b>156</b>	<b>130</b>	<b>223</b>	<b>166</b>	<b>153</b>
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	<b>0.0012 J</b>	< 0.003	< 0.003	<b>0.0015 J</b>	<b>0.0005 J</b>	< 0.003	NA
	Arsenic	mg/l	< 0.005	<b>0.0017 J</b>	<b>0.0023 J</b>	<b>0.0018 J</b>	<b>0.0016 J</b>	<b>0.002 J</b>	<b>0.0005 J</b>	<b>0.0016 J</b>	NA
	Barium	mg/l	<b>0.0037 J</b>	<b>0.0059 J</b>	<b>0.0056 J</b>	<b>0.0049 J</b>	<b>0.0046 J</b>	<b>0.0039 J</b>	<b>0.0034 J</b>	<b>0.003 J</b>	NA
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0005 J</b>	<b>0.0004 J</b>	< 0.01	< 0.01	NA
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Lithium	mg/l	<b>0.004 J</b>	< 0.05	<b>0.0026 J</b>	<b>0.0023 J</b>	<b>0.0013 J</b>	<b>0.0031 J</b>	<b>0.0038 J</b>	<b>0.0026 J</b>	NA
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA
	Molybdenum	mg/l	<b>0.0039 J</b>	<b>0.0077 J</b>	<b>0.0066 J</b>	<b>0.0056 J</b>	<b>0.0049 J</b>	<b>0.004 J</b>	<b>0.0029 J</b>	<b>0.0036 J</b>	NA
	Combined Radium - 226/228	pCi/l	0.98 U	0.277 U	0.071 U	0.44 U	0.448 U	0.548 U	0 U	0.608 U	NA
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
Field	Conductivity	µS/cm	NA	243.3	240.8	241.3	234.8	217.4	214	217.7	NA
	Dissolved Oxygen	mg/l	NA	0.51	3.01	0.4	0.61	0.35	0.25	0.45	NA
	Oxidation Reduction Potential	mV	NA	-123.3	-78.2	-172.3	-81.6	-194.4	-102.6	-66.8	NA
	Temperature	C	NA	21.83	12.48	20.84	16.1	21.78	17.99	24.36	NA
	Turbidity	ntu	NA	1.66	3.64	4.15	1.51	3.06	2.5	2.42	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-2I	YGWA-3I								
		YGWA-2I (032818)	YGWA-2I (060718)	YGWA-2I (100118)	YGWA-2I (022719)	YGWA-2I (032919)	YGWA-2I (092419)	YGWA-2I (021120)	YGWA-2I (031920)	YGWA-3I (060116)	
		3/28/2018	6/7/2018	10/1/2018	2/27/2019	3/29/2019	9/24/2019	2/11/2020	3/19/2020	6/1/2016	
Appendix III	pH	SU	7.3	7.29	7.07	7.27	7.06	7.01	7.38	7.22	7.72
	Boron	mg/l	NA	< 0.04	< 0.2	NA	<b>0.0065 J</b>	<b>0.0076 J</b>	NA	<b>0.0073 J</b>	< 0.05
	Calcium	mg/l	NA	<b>25</b>	<b>25</b>	NA	<b>23.5 J</b>	<b>26.4</b>	NA	<b>27.4</b>	<b>21</b>
	Chloride	mg/l	NA	1	1.1	NA	1.2	<b>0.95 J</b>	NA	<b>0.97 J</b>	1.3
	Fluoride	mg/l	<b>0.31</b>	<b>0.11 J</b>	< 0.3	<b>0.12 J</b>	<b>0.13 J</b>	<b>0.081 J</b>	<b>0.075 J</b>	<b>0.093 J</b>	<b>0.15 J</b>
	Sulfate	mg/l	NA	<b>8.8</b>	<b>9.1</b>	NA	<b>9</b>	<b>9.1</b>	NA	<b>12.4</b>	<b>12</b>
	TDS	mg/l	NA	<b>146</b>	<b>155</b>	NA	<b>150</b>	<b>146</b>	NA	<b>148</b>	<b>150</b>
Appendix IV	Antimony	mg/l	< 0.003	NA	NA	< 0.003	NA	NA	<b>0.00036 J</b>	<b>0.00030 JB</b>	< 0.0025
	Arsenic	mg/l	<b>0.0013 J</b>	<b>0.00082 J</b>	<b>0.0011 J</b>	<b>0.001 J</b>	<b>0.00063 J</b>	< 0.005	<b>0.0044 JB</b>	<b>0.00066 J</b>	< 0.0013
	Barium	mg/l	< 0.01	<b>0.0037 J</b>	<b>0.0038 J</b>	<b>0.0035 J</b>	<b>0.0039 J</b>	<b>0.0038 J</b>	<b>0.0036 J</b>	<b>0.0036 J</b>	<b>0.0038</b>
	Beryllium	mg/l	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003	< 0.000074	< 0.000074	< 0.0025
	Cadmium	mg/l	< 0.001	NA	NA	< 0.001	< 0.001	< 0.0025	< 0.00011	< 0.00011	< 0.0025
	Chromium	mg/l	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.00039	<b>0.00048 J</b>	< 0.0025
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.00030	< 0.00030	< 0.0025
	Lead	mg/l	< 0.005	NA	NA	< 0.005	NA	NA	< 0.00046	< 0.00046	< 0.0013
	Lithium	mg/l	<b>0.0025 J</b>	<b>0.0017 J</b>	< 0.25 o	<b>0.0011 J</b>	<b>0.0016 J</b>	<b>0.0011 J</b>	<b>0.0012 J</b>	<b>0.0022 J</b>	<b>0.01</b>
	Mercury	mg/l	< 0.0005	NA	NA	< 0.0005	< 0.0005	< 0.0005	< 0.00014	NA	< 0.0002
	Molybdenum	mg/l	<b>0.0038 J</b>	<b>0.004 J</b>	<b>0.0042 J</b>	<b>0.0041 J</b>	<b>0.0041 J</b>	<b>0.0054 J</b>	<b>0.0057 J</b>	<b>0.0046 J</b>	<b>0.0055 J</b>
	Combined Radium - 226/228	pCi/l	0.412 U	0.73 U	0.756 U	0.635 U	0.224 U	0.429 U	<b>0.817</b>	<b>0.715</b>	<b>0.896</b>
	Selenium	mg/l	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.0013	< 0.0013	< 0.0013
	Thallium	mg/l	< 0.001	NA	NA	< 0.001	NA	NA	< 0.000052	< 0.000052	< 0.0005
Field	Conductivity	µS/cm	219.56	NA	NA	197.2	213.6	222.08	NA	NA	213.8
	Dissolved Oxygen	mg/l	0.4	NA	NA	0.56	1.59	0.47	NA	NA	0.09
	Oxidation Reduction Potential	mV	-38.23	NA	NA	-111.9	-84.5	56.5	NA	NA	-120
	Temperature	C	16.4	NA	NA	15.98	16.8	22.98	NA	NA	17.45
	Turbidity	ntu	0.46	NA	NA	0.5	3.1	1.11	NA	NA	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-3I								
		YGWA-3I (072516)	YGWA-3I (091416)	YGWA-3I (110116)	YGWA-3I (011117)	YGWA-3I (030117)	YGWA-3I (042617)	YGWA-3I (062817)	YGWA-3I (100417)	YGWA-3I (032818)
		7/25/2016	9/14/2016	11/1/2016	1/11/2017	3/1/2017	4/26/2017	6/28/2017	10/4/2017	3/28/2018
Appendix III	pH	SU	7.74	7.65	7.7	7.53	7.42	7.4	7.5	7.45
	Boron	mg/l	< 0.1	< 0.1	< 0.1	< 0.04	< 0.04	< 0.04	< 0.04	NA
	Calcium	mg/l	<b>20.3</b>	<b>19.7</b>	<b>18.4</b>	<b>20.3</b>	<b>18.6</b>	<b>25.6</b>	<b>23.9</b>	<b>22.1</b>
	Chloride	mg/l	1.3	1.3	1.4	1.1	1.1	1.1	1.2	NA
	Fluoride	mg/l	<b>0.14 J</b>	<b>0.18 J</b>	< 0.3	<b>0.09 J</b>	< 0.3	<b>0.08 J</b>	<b>0.12 J</b>	< 0.3
	Sulfate	mg/l	<b>8.4</b>	<b>8.6</b>	<b>8.9</b>	<b>8.6</b>	<b>9.3</b>	<b>11</b>	<b>12</b>	<b>12</b>
	TDS	mg/l	<b>135</b>	<b>127</b>	<b>75</b>	<b>148</b>	<b>182</b>	<b>92</b>	<b>126</b>	<b>147</b>
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0004 J</b>	< 0.005	<b>0.0011 J</b>	NA
	Barium	mg/l	<b>0.0031 J</b>	<b>0.0027 J</b>	<b>0.0027 J</b>	<b>0.0036 J</b>	<b>0.0036 J</b>	<b>0.0038 J</b>	<b>0.004 J</b>	< 0.01
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	<b>0.00008 J</b>	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0004 J</b>	< 0.01	< 0.01	NA
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Lithium	mg/l	<b>0.0132 J</b>	<b>0.012 J</b>	<b>0.0115 J</b>	<b>0.0085 J</b>	<b>0.0114 J</b>	<b>0.0092 J</b>	<b>0.0085 J</b>	NA
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA
	Molybdenum	mg/l	<b>0.0037 J</b>	<b>0.0034 J</b>	<b>0.0025 J</b>	<b>0.0033 J</b>	<b>0.0044 J</b>	<b>0.0075 J</b>	<b>0.008 J</b>	NA
	Combined Radium - 226/228	pCi/l	<b>2.28</b>	0.821 U	0.585 U	<b>1.22</b>	0.877 U	0.672 U	1.07 U	NA
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	185	190.6	191.5	217.5	212	229.2	226.9	NA
	Dissolved Oxygen	mg/l	0.06	0.11	0.64	0.55	0.46	0.4	0.45	NA
	Oxidation Reduction Potential	mV	-116.2	-116.58	-121.9	-33	-54.6	-64.5	-11.8	NA
	Temperature	C	19.38	19.68	18.82	16.44	17.58	19.5	20.59	NA
	Turbidity	ntu	0	0.73	0.18	0.32	0.68	0.45	1.89	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-3I	YGWA-3I	YGWA-3I	YGWA-3I	YGWA-3I	YGWA-3I	YGWA-3I	YGWA-3D	YGWA-3D	
		YGWA-3I (060818)	YGWA-3I (100118)	YGWA-3I (022719)	YGWA-3I (040119)	YGWA-3I (092519)	YGWA-3I (021120)	YGWA-3I (031920)	YGWA-3D (060216)	YGWA-3D (072616)	
		6/8/2018	10/1/2018	2/27/2019	4/1/2019	9/25/2019	2/11/2020	3/19/2020	6/2/2016	7/26/2016	
Appendix III	pH	SU	7.64	7.47	7.54	7.74	7.47	7.09	7.31	7.84	7.88
	Boron	mg/l	< 0.04	< 0.2	NA	< 0.04	< 0.04	NA	<b>0.0053 J</b>	< 0.05	<b>0.0097 J</b>
	Calcium	mg/l	<b>21.9 J</b>	<b>19.7</b>	NA	<b>20.4 J</b>	<b>22.4</b>	NA	<b>21.9</b>	<b>28</b>	<b>24.5</b>
	Chloride	mg/l	1.2	1.2	NA	1.1	1.1	NA	1.1	1.4	1.6
	Fluoride	mg/l	<b>0.2 J</b>	< 0.3	<b>0.13 J</b>	<b>0.1 J</b>	<b>0.1 J</b>	<b>0.094 J</b>	<b>0.11 J</b>	<b>0.62</b>	<b>0.49</b>
	Sulfate	mg/l	<b>9.6</b>	<b>9.1</b>	NA	<b>8.5</b>	<b>13.8</b>	NA	<b>12.9</b>	<b>5.8</b>	<b>6.7</b>
	TDS	mg/l	<b>158</b>	<b>138</b>	NA	<b>19 J</b>	<b>159</b>	NA	<b>148 D6</b>	<b>130</b>	<b>141</b>
Appendix IV	Antimony	mg/l	NA	NA	< 0.003	NA	NA	< 0.00027	< 0.00027B	< 0.0025	<b>0.002 J</b>
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0041 JB</b>	< 0.00035	< 0.0013	< 0.005
	Barium	mg/l	<b>0.0034 J</b>	<b>0.0034 J</b>	<b>0.0034 J</b>	<b>0.003 J</b>	<b>0.005 J</b>	<b>0.0031 J</b>	<b>0.0029 J</b>	<b>0.01</b>	<b>0.0088 J</b>
	Beryllium	mg/l	NA	NA	< 0.003	< 0.003	< 0.003	< 0.000074	< 0.000074	< 0.0025	< 0.003
	Cadmium	mg/l	NA	NA	< 0.001	< 0.001	< 0.0025	< 0.00011	< 0.00011	< 0.0025	< 0.001
	Chromium	mg/l	NA	NA	< 0.01	< 0.01	<b>0.0019 J</b>	< 0.00039	< 0.00039	<b>0.0013 J</b>	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.00030	< 0.00030	< 0.0025	< 0.01
	Lead	mg/l	NA	NA	< 0.005	NA	NA	< 0.00046	< 0.00046	<b>0.00056 J</b>	<b>0.0001 J</b>
	Lithium	mg/l	<b>0.012 J</b>	<b>0.011 J</b>	<b>0.014 J</b>	<b>0.013 J</b>	<b>0.01 J</b>	<b>0.013 J</b>	<b>0.014 J</b>	<b>0.018</b>	<b>0.0221 J</b>
	Mercury	mg/l	NA	NA	<b>0.000061 J</b>	<b>0.000084 J</b>	< 0.0005	< 0.00014	NA	< 0.0002	< 0.0005
	Molybdenum	mg/l	<b>0.0041 J</b>	<b>0.0037 J</b>	<b>0.0027 J</b>	<b>0.0021 J</b>	<b>0.0087 J</b>	<b>0.0030 J</b>	<b>0.0043 J</b>	<b>0.0093 J</b>	<b>0.0113</b>
	Combined Radium - 226/228	pCi/l	<b>1.89</b>	<b>1.58</b>	<b>3.67</b>	<b>2.28</b>	<b>1.6</b>	<b>1.85</b>	<b>2.20</b>	<b>2.51</b>	<b>3.82</b>
	Selenium	mg/l	NA	NA	< 0.01	< 0.01	< 0.01	< 0.0013	< 0.0013	< 0.0013	< 0.01
	Thallium	mg/l	NA	NA	< 0.001	NA	NA	< 0.000052	< 0.000052	< 0.0005	<b>0.0001 J</b>
Field	Conductivity	µS/cm	NA	NA	195.6	187.5	234.27	NA	NA	216.1	215.7
	Dissolved Oxygen	mg/l	NA	NA	0.42	0.38	1.07	NA	NA	0.17	1.43
	Oxidation Reduction Potential	mV	NA	NA	-83.5	-87.8	-26.6	NA	NA	-137.3	-101.5
	Temperature	C	NA	NA	16.46	15.6	29.09	NA	NA	17.43	19.25
	Turbidity	ntu	NA	NA	0.79	0.95	4.7	NA	NA	NA	2.27

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-3D									
		YGWA-3D (091516)	YGWA-3D (110116)	YGWA-3D (011117)	YGWA-3D (030217)	YGWA-3D (042617)	YGWA-3D (062817)	YGWA-3D (100417)	YGWA-3D (032818)	YGWA-3D (060718)	
		9/15/2016	11/1/2016	1/11/2017	3/2/2017	4/26/2017	6/28/2017	10/4/2017	3/28/2018	6/7/2018	
Appendix III	pH	SU	7.74	7.75	7.66	7.68	7.45	7.65	7.49	7.91	7.69
	Boron	mg/l	<b>0.0102 J</b>	< 0.1	< 0.04	<b>0.0084 J</b>	< 0.04	< 0.04	< 0.04	NA	<b>0.004 J</b>
	Calcium	mg/l	<b>27</b>	<b>25.6</b>	<b>27.5</b>	<b>27.5</b>	<b>30.4</b>	<b>29.8</b>	<b>29.7</b>	NA	<b>29.1</b>
	Chloride	mg/l	<b>1.5</b>	<b>1.7</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.3</b>	<b>1.5</b>	NA	<b>1.2</b>
	Fluoride	mg/l	<b>0.54</b>	<b>0.68</b>	<b>0.49</b>	<b>0.48</b>	<b>0.48</b>	<b>0.47</b>	< 0.47	<b>0.56</b>	<b>0.48</b>
	Sulfate	mg/l	<b>6</b>	<b>4.9</b>	<b>4.5</b>	<b>4.4</b>	<b>5.1</b>	<b>5.4</b>	<b>6.2</b>	NA	<b>6.7</b>
	TDS	mg/l	<b>153</b>	<b>92</b>	<b>159</b>	<b>117</b>	<b>181</b>	<b>169</b>	<b>141</b>	NA	<b>95</b>
Appendix IV	Antimony	mg/l	<b>0.0027 J</b>	< 0.003	< 0.003	<b>0.0008 J</b>	< 0.003	< 0.003	NA	< 0.003	NA
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0007 J</b>	NA	< 0.005	< 0.005
	Barium	mg/l	<b>0.009 J</b>	<b>0.0079 J</b>	<b>0.0075 J</b>	<b>0.009 J</b>	<b>0.0078 J</b>	<b>0.0071 J</b>	NA	< 0.01	<b>0.0068 J</b>
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA
	Cadmium	mg/l	< 0.001	< 0.001	<b>0.0001 J</b>	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	<b>0.0006 J</b>	< 0.01	< 0.01	NA	< 0.01	NA
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
	Lead	mg/l	<b>0.0002 J</b>	< 0.005	< 0.005	<b>0.0002 J</b>	< 0.005	< 0.005	NA	< 0.005	NA
	Lithium	mg/l	<b>0.0197 J</b>	<b>0.0194 J</b>	<b>0.0177 J</b>	<b>0.0185 J</b>	<b>0.0183 J</b>	<b>0.0173 J</b>	NA	<b>0.02 J</b>	<b>0.02 J</b>
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA	< 0.0005	NA
	Molybdenum	mg/l	<b>0.0112</b>	<b>0.0099 J</b>	<b>0.0093 J</b>	<b>0.0103</b>	<b>0.01</b>	<b>0.0102</b>	NA	<b>0.011</b>	<b>0.011</b>
	Combined Radium - 226/228	pCi/l	<b>4.24</b>	<b>3.92</b>	<b>2.52</b>	<b>3.13</b>	<b>2.35</b>	<b>2.6</b>	NA	<b>3</b>	<b>2.79</b>
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA
Field	Conductivity	µS/cm	222.59	226.2	231.7	231.9	226.5	225	NA	231.13	NA
	Dissolved Oxygen	mg/l	0.07	0.23	0.54	0.17	0.12	0.15	NA	0.67	NA
	Oxidation Reduction Potential	mV	-77.19	-58.9	-54.9	-66.7	-97	-64.5	NA	-115.93	NA
	Temperature	C	18.45	18.61	16.74	15.24	18.97	21.69	NA	19.12	NA
	Turbidity	ntu	2.54	1.03	0.76	4.75	0.95	1.81	NA	0.23	NA

**Appendix C. Historical Analytical Data**

**2020 Semiannual Groundwater Monitoring and Corrective Action Report**

**Georgia Power Company**

**Plant Yates - Ash Pond 2**

**Georgia Power Company**



Analyte	Units	YGWA-3D	YGWA-3D	YGWA-3D	YGWA-3D	YGWA-3D	YGWA-3D	YGWA-14S	YGWA-14S	YGWA-14S
		YGWA-3D (100118)	YGWA-3D (022719)	YGWA-3D (040119)	YGWA-3D (092519)	YGWA-3D (021220)	YGWA-3D (031920)	YGWA-14S (060216)	YGWA-14S (072616)	YGWA-14S (091516)
		10/1/2018	2/27/2019	4/1/2019	9/25/2019	2/12/2020	3/19/2020	6/2/2016	7/26/2016	9/15/2016
Appendix III	pH	SU	7.39	7.55	7.87	7.64	7.83	7.65	5.46	5.45
	Boron	mg/l	< 0.2	NA	< 0.04	<b>0.0054 J</b>	NA	<b>0.0073 J</b>	< 0.05	<b>0.0177 J</b>
	Calcium	mg/l	<b>26.9</b>	NA	<b>30.1</b>	<b>29.5</b>	NA	<b>31.5</b>	<b>1.3</b>	<b>1.24</b>
	Chloride	mg/l	1.5	NA	1.2	1.1	NA	1.2	4.1	4.2
	Fluoride	mg/l	<b>0.44</b>	<b>0.53</b>	<b>0.45</b>	<b>0.46</b>	<b>0.40</b>	<b>0.51</b>	< 0.2	<b>0.02 J</b>
	Sulfate	mg/l	<b>7.1</b>	NA	<b>7.2</b>	7	NA	<b>9.0</b>	<b>6.6</b>	<b>6.1</b>
	TDS	mg/l	<b>165</b>	NA	<b>149</b>	<b>157</b>	NA	<b>146</b>	<b>46</b>	<b>54</b>
Appendix IV	Antimony	mg/l	NA	< 0.003	NA	NA	< 0.00027	<b>0.00064 JB</b>	< 0.0025	<b>0.0005 J</b>
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	<b>0.0038 JB</b>	< 0.00035	< 0.0013	< 0.005
	Barium	mg/l	<b>0.0065 J</b>	<b>0.0059 J</b>	<b>0.0064 J</b>	<b>0.0059 J</b>	<b>0.0062 J</b>	<b>0.0072 J</b>	<b>0.0081</b>	<b>0.0082 J</b>
	Beryllium	mg/l	NA	< 0.003	< 0.003	< 0.003	< 0.000074	< 0.000074	< 0.0025	<b>0.0002 J</b>
	Cadmium	mg/l	NA	< 0.001	< 0.001	< 0.0025	< 0.00011	< 0.00011	< 0.0025	< 0.001
	Chromium	mg/l	NA	< 0.01	< 0.01	<b>0.0014 J</b>	< 0.00039	< 0.00039	< 0.0025	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.005	< 0.00030	< 0.00030	< 0.0025	< 0.01
	Lead	mg/l	NA	< 0.005	NA	NA	< 0.000046	<b>0.00017 J</b>	< 0.0013	< 0.005
	Lithium	mg/l	<b>0.02 J</b>	<b>0.021 J</b>	<b>0.021 J</b>	<b>0.02 J</b>	<b>0.019 J</b>	<b>0.023 J</b>	< 0.005	< 0.05
	Mercury	mg/l	NA	<b>0.000062 J</b>	<b>0.000096 J</b>	< 0.0005	< 0.00014	NA	< 0.0002	< 0.0005
	Molybdenum	mg/l	<b>0.012</b>	<b>0.011</b>	<b>0.012</b>	<b>0.012</b>	<b>0.013</b>	<b>0.013</b>	< 0.015	< 0.01
	Combined Radium - 226/228	pCi/l	<b>3.14</b>	<b>3.79</b>	<b>4.33</b>	<b>4.2</b>	<b>3.87</b>	<b>3.96</b>	0.329 U	<b>1.51</b>
	Selenium	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.0013	< 0.0013	<b>0.0011 J</b>	<b>0.0016 J</b>
	Thallium	mg/l	NA	< 0.001	NA	NA	< 0.000052	< 0.000052	< 0.0005	< 0.001
Field	Conductivity	µS/cm	NA	229	212.6	234.21	NA	NA	56.72	60.1
	Dissolved Oxygen	mg/l	NA	0.1	0.24	0.18	NA	NA	5.24	5.33
	Oxidation Reduction Potential	mV	NA	-78.7	-62.7	-44.6	NA	NA	137	106.2
	Temperature	C	NA	16.51	16.59	25.14	NA	NA	20.83	23
	Turbidity	ntu	NA	0.85	1.21	1.83	NA	NA	0.15	1.07

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-14S								
		YGWA-14S (110216)	YGWA-14S (011017)	YGWA-14S (030817)	YGWA-14S (042617)	YGWA-14S (063017)	YGWA-14S (100517)	YGWA-14S (032718)	YGWA-14S (060818)	YGWA-14S (100118)
		11/2/2016	1/10/2017	3/8/2017	4/26/2017	6/30/2017	10/5/2017	3/27/2018	6/8/2018	10/1/2018
Appendix III	pH	SU	5.41	5.37	5.41	5.02 o	5.39	5.49	5.47	5.45
	Boron	mg/l	< 0.1	<b>0.0198 J</b>	<b>0.0189 J</b>	<b>0.0161 J</b>	<b>0.0173 J</b>	<b>0.0173 J</b>	NA	<b>0.013 J</b>
	Calcium	mg/l	<b>1.23</b>	<b>1.24</b>	<b>1.21</b>	<b>1.14</b>	<b>1.24</b>	<b>1.11</b>	NA	<b>1.1</b>
	Chloride	mg/l	<b>4.9</b>	<b>4.1</b>	<b>4.2</b>	<b>4.1</b>	<b>3.7</b>	<b>3.8</b>	NA	<b>3.4</b>
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Sulfate	mg/l	<b>6.3</b>	<b>5.9</b>	<b>7</b>	<b>7</b>	<b>6.5</b>	<b>7.9</b>	NA	<b>6.4</b>
	TDS	mg/l	<b>71</b>	<b>45</b>	<b>178 o</b>	<b>52</b>	<b>45</b>	<b>40</b>	NA	<b>114</b>
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	< 0.005
	Barium	mg/l	<b>0.0082 J</b>	<b>0.0086 J</b>	<b>0.0088 J</b>	<b>0.0085 J</b>	<b>0.0081 J</b>	NA	< 0.01	<b>0.007 J</b>
	Beryllium	mg/l	<b>0.0002 J</b>	NA	< 0.003	NA				
	Cadmium	mg/l	< 0.001	< 0.001	<b>0.00007 J</b>	< 0.001	< 0.001	NA	< 0.001	NA
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
	Lead	mg/l	< 0.005	< 0.005	<b>0.0001 J</b>	< 0.005	< 0.005	NA	< 0.005	NA
	Lithium	mg/l	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA	< 0.0005	NA
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	0.496 U	0.376 U	0.0745 U	0.282 U	<b>0.994</b>	NA	0.189 U	0.218 U
	Selenium	mg/l	< 0.01	<b>0.0012 J</b>	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA
Field	Conductivity	µS/cm	65.7	69.4	68.6	65.2	63.8	NA	59.93	NA
	Dissolved Oxygen	mg/l	5.38	5.15	5.33	6.02	6.25	NA	6.68	NA
	Oxidation Reduction Potential	mV	210.2	146.7	144.8	180.7	177.8	NA	83.78	NA
	Temperature	C	18.48	16.56	17.13	17.47	19.24	NA	16.16	NA
	Turbidity	ntu	0.55	1.39	1.42	0.81	1.74	NA	0.77	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-14S	YGWA-14S	YGWA-14S	YGWA-14S	YGWA-14S	YGWA-30I	YGWA-30I	YGWA-30I	YGWA-30I	
		YGWA-14S (022619)	YGWA-14S (032919)	YGWA-14S (092519)	YGWA-14S (021220)	YGWA-14S (031820)	YGWA-30I (060216)	YGWA-30I (072516)	YGWA-30I (091916)	YGWA-30I (110116)	
		2/26/2019	3/29/2019	9/25/2019	2/12/2020	3/18/2020	6/2/2016	7/25/2016	9/19/2016	11/1/2016	
Appendix III	pH	SU	5.46	5.34	5.19	5.48	5.38	5.75	5.82	5.78	5.62
	Boron	mg/l	NA	<b>0.014 J</b>	<b>0.018 J</b>	NA	<b>0.033 J</b>	< 0.05	< 0.1	< 0.1	< 0.1
	Calcium	mg/l	NA	<b>1.1</b>	<b>1.1</b>	NA	<b>1.1</b>	<b>1.3</b>	<b>1.17</b>	<b>1.05</b>	<b>1.14</b>
	Chloride	mg/l	NA	<b>4.2</b>	<b>4.8</b>	NA	<b>5.4</b>	<b>1.9</b>	<b>1.7</b>	<b>1.6</b>	<b>1.8</b>
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.050 (< 0.050)	< 0.050	< 0.2	<b>0.06 J</b>	< 0.3	< 0.3
	Sulfate	mg/l	NA	<b>7.3</b>	<b>6.6</b>	NA	<b>9.9</b>	<b>1.3</b>	<b>1.2</b>	<b>1.2</b>	<b>1.3</b>
	TDS	mg/l	NA	<b>63</b>	<b>64</b>	NA	<b>57.0 (42.0)</b>	<b>36</b>	<b>50</b>	<b>35</b>	< 25
Appendix IV	Antimony	mg/l	< 0.003	NA	NA	0.00028 J	< 0.00027	< 0.0025	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.00035	< 0.00035	< 0.0013	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.0067 J</b>	<b>0.0066 J</b>	<b>0.0071 J</b>	<b>0.0076 J</b>	<b>0.0080 J</b>	<b>0.0064</b>	<b>0.0071 J</b>	<b>0.0069 J</b>	<b>0.007 J</b>
	Beryllium	mg/l	<b>0.00016 J</b>	<b>0.00017 J</b>	<b>0.00018 J</b>	<b>0.00023 J</b>	<b>0.00021 J</b>	< 0.0025	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.0025	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	< 0.00065 J	< 0.00039	< 0.0025	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	< 0.01	< 0.01	< 0.005	< 0.00030	< 0.00030	<b>0.035</b>	<b>0.0312</b>	<b>0.0275</b>	<b>0.0255</b>
	Lead	mg/l	< 0.005	NA	NA	< 0.000046	< 0.000046	< 0.0013	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	< 0.05	< 0.05	< 0.03	< 0.00078	< 0.00078	< 0.005	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	<b>0.000061 J</b>	< 0.0005	< 0.0005	< 0.00014	--	< 0.0002	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	0.202 U	0 U	0.707 U	<b>1.11 U</b>	<b>0.207 U</b>	0.0652 U	<b>3.01</b>	0.871 U	0.307 U
	Selenium	mg/l	< 0.01	<b>0.0019 J</b>	< 0.01	< 0.0013	0.0015 J	< 0.0013	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	NA	NA	<b>0.000089 J</b>	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	51.7	54.6	58.6	NA	NA	38.33	38.6	38.54	38.3
	Dissolved Oxygen	mg/l	6.61	6.73	6.25	NA	NA	5.67	5.71	6.23	6.62
	Oxidation Reduction Potential	mV	169.8	214.8	167.4	NA	NA	106.4	79.5	56.8	104.6
	Temperature	C	17.69	17.72	19.98	NA	NA	18.08	21.32	19.64	19.68
	Turbidity	ntu	0.3	0.5	0.33	NA	NA	0.77	1.72	2.79	1.23

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWA-30I									
		YGWA-30I (011617)	YGWA-30I (022117)	YGWA-30I (042617)	YGWA-30I (063017)	YGWA-30I (100417)	YGWA-30I (032718)	YGWA-30I (061118)	YGWA-30I (100218)	YGWA-30I (022619)	
		1/16/2017	2/21/2017	4/26/2017	6/30/2017	10/4/2017	3/27/2018	6/11/2018	10/2/2018	2/26/2019	
Appendix III	pH	SU	5.72	5.67	5.56	5.72	5.87	5.83	5.69	5.39	5.77
	Boron	mg/l	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	NA	<b>0.014 J</b>	< 0.04	NA
	Calcium	mg/l	<b>1.23</b>	<b>1.25</b>	<b>1.03</b>	<b>1.13</b>	<b>1.09</b>	NA	<b>1.1</b>	<b>1.1</b>	NA
	Chloride	mg/l	<b>1.7</b>	<b>1.7</b>	<b>1.7</b>	<b>1.8</b>	<b>1.8</b>	NA	<b>2</b>	<b>1.8</b>	NA
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	Sulfate	mg/l	< 1.4	<b>1.4</b>	<b>1.4</b>	< 1.5	<b>1.4</b>	NA	<b>1.1</b>	<b>1</b>	NA
	TDS	mg/l	<b>47</b>	< 25	<b>55</b>	<b>42</b>	<b>31</b>	NA	<b>59</b>	<b>57</b>	NA
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.0071 J</b>	<b>0.0077 J</b>	<b>0.0074 J</b>	<b>0.0076 J</b>	NA	< 0.01	<b>0.007 J</b>	<b>0.0069 J</b>	<b>0.007 J</b>
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	<b>0.000072 J</b>
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	<b>0.0016 J</b>	< 0.01	NA	< 0.01	NA	NA	< 0.01
	Cobalt	mg/l	<b>0.0245</b>	<b>0.0272</b>	<b>0.0244</b>	<b>0.0233</b>	NA	<b>0.023</b>	<b>0.023</b>	<b>0.022</b>	<b>0.021</b>
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.005
	Lithium	mg/l	< 0.05	< 0.05	< 0.05	< 0.05	NA	<b>0.0011 J</b>	<b>0.0012 J</b>	< 0.05	<b>0.0011 J</b>
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA	< 0.0005	NA	NA	<b>0.000068 J</b>
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	0.284 U	0.503 U	0.204 U	0.738 U	NA	0.31 U	0.608 U	0.97 U	0.524 U
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.001
Field	Conductivity	µS/cm	38.3	40.8	40.1	39.1	NA	39.43	NA	NA	35.6
	Dissolved Oxygen	mg/l	6.1	6.3	6.28	6	NA	6.77	NA	NA	6.75
	Oxidation Reduction Potential	mV	111.6	122.9	150.3	71.1	NA	83.88	NA	NA	138.2
	Temperature	C	16.92	17.14	18.25	18.75	NA	17.1	NA	NA	17.54
	Turbidity	ntu	0.63	3.88	0.45	0.32	NA	2.22	NA	NA	0.3

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

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Georgia Power Company

Analyte	Units	YGWA-30I	YGWA-30I	YGWA-30I	YGWA-30I	YGWC-26I	YGWC-26I	YGWC-26I	YGWC-26I	YGWC-26I
		YGWA-30I (040119)	YGWA-30I (092519)	YGWA-30I (021220)	YGWA-30I (031920)	YGWC-26I (060816)	YGWC-26I (080116)	YGWC-26I (092016)	YGWC-26I (110716)	YGWC-26I (011817)
		4/1/2019	9/25/2019	2/12/2020	3/19/2020	6/8/2016	8/1/2016	9/20/2016	11/7/2016	1/18/2017
Appendix III	pH	SU	5.62	5.69	5.80	6.00	5.85	5.83	5.89	5.91
	Boron	mg/l	< 0.04	< 0.04	NA	<b>0.0052 J</b>	<b>0.97</b>	<b>0.932</b>	<b>1.04</b>	<b>0.852</b>
	Calcium	mg/l	<b>1.3</b>	<b>1.1</b>	NA	<b>1.2</b>	<b>15</b>	<b>14.5</b>	<b>15.3</b>	<b>13.8</b>
	Chloride	mg/l	<b>1.7</b>	<b>1.6</b>	NA	<b>1.8</b>	<b>19</b>	<b>17</b>	<b>18</b>	<b>17</b>
	Fluoride	mg/l	< 0.3	< 0.3	< 0.050	< 0.050	<b>0.094 J</b>	<b>0.08 J</b>	<b>0.05 J</b>	< 0.3
	Sulfate	mg/l	<b>0.96 J</b>	<b>0.81 J</b>	NA	<b>1.6</b>	<b>81</b>	<b>75</b>	<b>78</b>	<b>81</b>
	TDS	mg/l	<b>54</b>	<b>51</b>	NA	<b>47.0</b>	<b>220</b>	<b>211</b>	<b>217</b>	<b>301</b>
Appendix IV	Antimony	mg/l	NA	NA	< 0.00027	< 0.00027	< 0.0025	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	<b>0.0032 JB</b>	< 0.00035	< 0.0013	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.0072 J</b>	<b>0.0066 J</b>	<b>0.0073 J</b>	<b>0.0074 J</b>	<b>0.068</b>	<b>0.0688</b>	<b>0.0663</b>	<b>0.065</b>
	Beryllium	mg/l	< 0.003	< 0.003	< 0.000074	< 0.000074	< 0.0025	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.0025	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	< 0.00039	< 0.00039	< 0.0025	<b>0.0008 J</b>	< 0.01	< 0.01
	Cobalt	mg/l	<b>0.022</b>	<b>0.016</b>	<b>0.014</b>	<b>0.014</b>	< 0.0025	< 0.01	< 0.01	< 0.01
	Lead	mg/l	NA	NA	< 0.000046	< 0.000046	< 0.0013	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	<b>0.001 J</b>	<b>0.0011 J</b>	<b>0.0013 J</b>	<b>0.0012 J</b>	<b>0.007</b>	<b>0.0068 J</b>	<b>0.0062 J</b>	<b>0.0057 J</b>
	Mercury	mg/l	<b>0.000082 J</b>	< 0.0005	< 0.00014	NA	< 0.0002	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	1.02 U	1.02 U	<b>0.301</b>	<b>1.000</b>	<b>6.68</b>	0.606 U	0.565 U	0.773 U
	Selenium	mg/l	< 0.01	< 0.01	< 0.0013	< 0.0013	<b>0.0016</b>	<b>0.0023 J</b>	<b>0.0022 J</b>	<b>0.0017 J</b>
	Thallium	mg/l	NA	NA	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	36.8	37.6	NA	NA	310.87	303.3	298.37	309.4
	Dissolved Oxygen	mg/l	7.08	6.92	NA	NA	0.18	0.09	0.76	0.19
	Oxidation Reduction Potential	mV	163.3	143.8	NA	NA	58.9	33.8	31.53	91.2
	Temperature	C	17.27	21.17	NA	NA	21.73	20.25	22.8	20.18
	Turbidity	ntu	1	0.42	NA	NA	4.29	3.79	1.65	4.69

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWC-26I							
		YGWC-26I (022117)	YGWC-26I (050817)	YGWC-26I (071017)	YGWC-26I (101017)	YGWC-26I (033018)	YGWC-26I (061318)	YGWC-26I (100218)	YGWC-26I (022719)
		2/21/2017	5/8/2017	7/10/2017	10/10/2017	3/30/2018	6/13/2018	10/2/2018	4/2/2019
Appendix III	pH	SU	5.79	5.84	5.92	5.84	6.19	5.82	5.81
	Boron	mg/l	<b>0.972</b>	<b>1.05</b>	<b>0.855</b>	<b>0.887</b>	NA	<b>0.86</b>	<b>0.93</b>
	Calcium	mg/l	<b>14.6</b>	<b>15.2</b>	<b>17.4</b>	<b>15.5</b>	NA	<b>15.5</b>	<b>14.7</b>
	Chloride	mg/l	<b>18</b>	<b>18</b>	<b>19</b>	<b>19</b>	NA	<b>18.1</b>	<b>18.3</b>
	Fluoride	mg/l	< 0.3	<b>0.08 J</b>	< 0.3	< 0.3	< 0.3	<b>0.088 J</b>	< 0.3
	Sulfate	mg/l	<b>80</b>	<b>84</b>	<b>84</b>	<b>82</b>	NA	<b>76.5</b>	<b>83.9</b>
	TDS	mg/l	<b>158</b>	<b>207</b>	<b>219</b>	<b>194</b>	NA	<b>228</b>	<b>227</b>
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.0655</b>	<b>0.0699</b>	<b>0.0691</b>	NA	<b>0.063</b>	<b>0.064</b>	<b>0.066</b>
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	< 0.001
	Chromium	mg/l	< 0.01	<b>0.0006 J</b>	< 0.01	NA	< 0.01	NA	<b>0.0049 J</b>
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	< 0.005
	Lithium	mg/l	<b>0.0067 J</b>	<b>0.007 J</b>	<b>0.0064 J</b>	NA	<b>0.0068 J</b>	<b>0.0071 J</b>	<b>0.0064 J</b>
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	NA	< 0.0005	NA	<b>0.000051 J</b>
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	1.06 U	0.291 U	<b>0.912</b>	NA	0.23 U	0.427 U	1.41 U
	Selenium	mg/l	<b>0.0018 J</b>	< 0.01	<b>0.002 J</b>	NA	< 0.01	NA	<b>0.002 J</b>
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	< 0.001
Field	Conductivity	µS/cm	299.7	308.6	304.8	NA	316.7	NA	NA
	Dissolved Oxygen	mg/l	0.28	0.18	0.3	NA	0.14	NA	0.14
	Oxidation Reduction Potential	mV	124.6	118	33	NA	22.25	NA	NA
	Temperature	C	19.15	20.07	22.45	NA	19.75	NA	18.77
	Turbidity	ntu	3.68	1.54	2.99	NA	4.34	NA	1.2

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

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Georgia Power Company

Analyte	Units	YGWC-26I	YGWC-26I	YGWC-26I	YGWC-26S	YGWC-26S	YGWC-26S	YGWC-26S	YGWC-26S
		YGWC-26I (092519)	YGWC-26I (021320)	YGWC-26I (032020)	YGWC-26S (060816)	YGWC-26S (080116)	YGWC-26S (092016)	YGWC-26S (110716)	YGWC-26S (011817)
		9/25/2019	2/13/2020	3/20/2020	6/8/2016	8/1/2016	9/20/2016	11/7/2016	1/18/2017
Appendix III	pH	SU	5.79	5.93	5.94	5.24	5.17	5.35	5.35
	Boron	mg/l	<b>0.86</b>	NA	<b>0.94</b>	<b>0.62</b>	<b>0.643</b>	<b>0.644</b>	<b>0.621</b>
	Calcium	mg/l	<b>15.6</b>	NA	<b>17.2</b>	<b>13</b>	<b>12.2</b>	<b>12.2</b>	<b>11.5</b>
	Chloride	mg/l	<b>17.1</b>	NA	<b>17.7</b>	<b>18</b>	<b>16</b>	<b>18</b>	<b>17</b>
	Fluoride	mg/l	<b>0.064 J</b>	< 0.050	<b>0.071 J</b>	< 0.2	<b>0.24 J</b>	<b>0.03 J</b>	<b>0.44</b>
	Sulfate	mg/l	<b>80.1</b>	NA	<b>84.7</b>	<b>110</b>	<b>96</b>	<b>100</b>	<b>100</b>
	TDS	mg/l	<b>225</b>	NA	<b>211 (178)</b>	<b>200</b>	<b>191</b>	<b>213</b>	<b>284</b>
Appendix IV	Antimony	mg/l	NA	<b>0.00052 J</b>	<b>0.00059 JB</b>	< 0.0025	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.00035	< 0.00035	< 0.0013	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.063</b>	<b>0.060</b>	<b>0.063</b>	<b>0.029</b>	<b>0.0316</b>	<b>0.0298</b>	<b>0.0289</b>
	Beryllium	mg/l	< 0.003	0.00014 J	< 0.000074	< 0.0025	<b>0.0002 J</b>	<b>0.0001 J</b>	<b>0.0001 J</b>
	Cadmium	mg/l	< 0.0025	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	<b>0.00048 J</b>	<b>0.00044 J</b>	<b>0.00093 J</b>	< 0.0025	<b>0.0026 J</b>	<b>0.001 J</b>	<b>0.0013 J</b>
	Cobalt	mg/l	< 0.005	< 0.00030	< 0.00030	<b>0.0032</b>	<b>0.003 J</b>	<b>0.003 J</b>	<b>0.0025 J</b>
	Lead	mg/l	NA	< 0.000046	<b>0.000071 J</b>	< 0.0013	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	<b>0.0073 J</b>	<b>0.0073 J</b>	<b>0.0072 J</b>	< 0.005	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005	< 0.00014	--	< 0.0002	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	1.01 U	<b>1.86</b>	<b>2.03</b>	<b>0.677</b>	0.457 U	0.555 U	0.647 U
	Selenium	mg/l	<b>0.0019 J</b>	<b>0.0019 J</b>	<b>0.0022 J</b>	<b>0.0003 J</b>	<b>0.0014 J</b>	< 0.01	< 0.01
	Thallium	mg/l	NA	< 0.000052	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	302.5	NA	NA	312.6	299.6	307.38	298
	Dissolved Oxygen	mg/l	0.35	NA	NA	0.5	1.02	1.12	1.35
	Oxidation Reduction Potential	mV	129.1	NA	NA	105.13	32.2	72.2	125.6
	Temperature	C	23.52	NA	NA	20.12	24.47	20.84	21.33
	Turbidity	ntu	1.71	NA	NA	4.18	2.25	1.92	2.05

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWC-26S							
		YGWC-26S (022117)	YGWC-26S (050317)	YGWC-26S (071017)	YGWC-26S (101017)	YGWC-26S (033018)	YGWC-26S (061318)	YGWC-26S (100218)	YGWC-26S (022719)
		2/21/2017	5/3/2017	7/10/2017	10/10/2017	3/30/2018	6/13/2018	10/2/2018	4/2/2019
Appendix III	pH	SU	5.14	5.28	5.25	5.17	5.19	5.12	4.95
	Boron	mg/l	<b>0.624</b>	<b>0.676</b>	<b>0.58</b>	<b>0.612</b>	NA	<b>0.67</b>	<b>0.62</b>
	Calcium	mg/l	<b>11.7</b>	<b>11.9</b>	<b>12.7</b>	<b>11.4</b>	NA	<b>12.5</b>	<b>12.4 J</b>
	Chloride	mg/l	<b>16</b>	<b>17</b>	<b>15</b>	<b>15</b>	NA	<b>14.2</b>	<b>14</b>
	Fluoride	mg/l	< 0.3	<b>0.16 J</b>	< 0.3	< 0.3	<b>0.35</b>	<b>0.044 J</b>	< 0.3
	Sulfate	mg/l	<b>96</b>	<b>100</b>	<b>100</b>	<b>97</b>	NA	<b>93.3</b>	<b>99</b>
	TDS	mg/l	<b>137</b>	<b>269</b>	<b>183</b>	<b>179</b>	NA	<b>196</b>	<b>191</b>
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.0282</b>	<b>0.0282</b>	<b>0.0274</b>	NA	<b>0.026</b>	<b>0.026</b>	<b>0.026</b>
	Beryllium	mg/l	<b>0.0002 J</b>	<b>0.0002 J</b>	<b>0.0002 J</b>	NA	< 0.003	NA	NA
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	NA
	Chromium	mg/l	<b>0.0019 J</b>	<b>0.0037 J</b>	< 0.01	NA	< 0.01	NA	NA
	Cobalt	mg/l	<b>0.0022 J</b>	<b>0.002 J</b>	<b>0.002 J</b>	NA	< 0.01	<b>0.0017 J</b>	<b>0.002 J</b>
	Lead	mg/l	< 0.005	< 0.005	<b>0.00008 J</b>	NA	< 0.005	NA	NA
	Lithium	mg/l	< 0.05	< 0.05	< 0.05	NA	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	NA	< 0.0005	NA	NA
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	1.11 U	0.654 U	0.649 U	NA	0.501 U	1.09 U	<b>0.747 U</b>
	Selenium	mg/l	<b>0.0014 J</b>	< 0.01	< 0.01	NA	< 0.01	NA	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	NA	< 0.001
Field	Conductivity	µS/cm	284.1	289.1	275	NA	289.96	NA	NA
	Dissolved Oxygen	mg/l	0.6	1.26	1.92	NA	1.62	NA	NA
	Oxidation Reduction Potential	mV	117.4	188.5	72.6	NA	94.83	NA	NA
	Temperature	C	20.93	21.53	23.61	NA	18.87	NA	NA
	Turbidity	ntu	4.81	2.31	4.4	NA	4.5	NA	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWC-26S	YGWC-26S	YGWC-26S	YGWC-27S	YGWC-27S	YGWC-27S	YGWC-27S	YGWC-27S
		YGWC-26S (092519)	YGWC-26S (021320)	YGWC-26S (031920)	YGWC-27S (060816)	YGWC-27S (080116)	YGWC-27S (092016)	YGWC-27S (110716)	YGWC-27S (011917)
		9/25/2019	2/13/2020	3/19/2020	6/8/2016	8/1/2016	9/20/2016	11/7/2016	2/22/2017
Appendix III	pH	SU	5.24	5.29	5.46	6.24	6.12	6.3	6.25
	Boron	mg/l	<b>0.63</b>	NA	<b>0.73</b>	<b>1.3</b>	<b>1.36</b>	<b>1.69</b>	<b>1.35</b>
	Calcium	mg/l	<b>11.6</b>	NA	<b>13.0</b>	<b>44</b>	<b>36.3</b>	<b>39.5</b>	<b>37</b>
	Chloride	mg/l	<b>14.4</b>	NA	<b>15.4</b>	<b>22</b>	<b>21</b>	<b>22</b>	<b>21</b>
	Fluoride	mg/l	< 0.3	< 0.050	< 0.050	<b>0.12 J</b>	<b>0.22 J</b>	<b>0.32</b>	< 0.3
	Sulfate	mg/l	<b>97</b>	NA	<b>99.4</b>	<b>26</b>	<b>27</b>	<b>21</b>	<b>24</b>
	TDS	mg/l	<b>190</b>	NA	<b>194</b>	<b>210</b>	<b>209</b>	<b>224</b>	<b>291</b>
Appendix IV	Antimony	mg/l	NA	<b>0.0016 J</b>	<b>0.0017 JB</b>	< 0.0025	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.00035	< 0.00035	< 0.0013	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.026</b>	<b>0.025</b>	<b>0.027</b>	<b>0.12</b>	<b>0.115</b>	<b>0.108</b>	<b>0.102</b>
	Beryllium	mg/l	<b>0.00011 J</b>	<b>0.00015 J</b>	<b>0.00012 J</b>	< 0.0025	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.0025	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	<b>0.0012 J</b>	<b>0.0012 J</b>	<b>0.0018 J</b>	< 0.0025	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	<b>0.0033 J</b>	<b>0.0019 J</b>	<b>0.0021 J</b>	<b>0.0024 J</b>	<b>0.0026 J</b>	<b>0.0026 J</b>	<b>0.0025 J</b>
	Lead	mg/l	NA	< 0.000046	<b>0.00010 J</b>	< 0.0013	< 0.005	<b>0.0002 J</b>	< 0.005
	Lithium	mg/l	< 0.03	< 0.00078	< 0.00078	< 0.005	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005	< 0.00014	NA	< 0.0002	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.00095	< 0.00095	< 0.015	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	1.18 U	<b>0.178</b>	<b>0.796</b>	0.257 U	0.453 U	<b>1.27</b>	0.877 U
	Selenium	mg/l	< 0.01	< 0.0013	< 0.0013	< 0.0013	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	NA	<b>0.000057 J</b>	<b>0.000055 J</b>	<b>0.00012 J</b>	<b>0.0001 J</b>	< 0.001	< 0.001
Field	Conductivity	µS/cm	288.8	NA	NA	434	436.2	447.87	434.4
	Dissolved Oxygen	mg/l	0.69	NA	NA	0.11	0.11	0.07	0.15
	Oxidation Reduction Potential	mV	169	NA	NA	77.5	40.9	-9.87	74
	Temperature	C	22.16	NA	NA	21.33	22.45	20.19	19.41
	Turbidity	ntu	2.37	NA	NA	NA	1.05	4.78	4.5

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWC-27S							
		YGWC-27S (050817)	YGWC-27S (063017)	YGWC-27S (100617)	YGWC-27S (032918)	YGWC-27S (061218)	YGWC-27S (100218)	YGWC-27S (022719)	YGWC-27S (040119)
		5/8/2017	6/30/2017	10/6/2017	3/29/2018	6/12/2018	10/2/2018	2/27/2019	9/26/2019
Appendix III	pH	SU	6.11	6.17	6.13	6.25	6.22	5.99	6.26
	Boron	mg/l	<b>1.51</b>	<b>1.47</b>	<b>1.31</b>	NA	<b>1.6</b>	<b>1.4</b>	NA
	Calcium	mg/l	<b>35.7</b>	<b>36.2</b>	<b>39.8</b>	NA	<b>36.2</b>	<b>39.1</b>	NA
	Chloride	mg/l	<b>22</b>	<b>21</b>	<b>21</b>	NA	<b>19.8</b>	<b>19.9</b>	NA
	Fluoride	mg/l	<b>0.19 J</b>	<b>0.2 J</b>	< 0.3	<b>0.49</b>	<b>0.037 J</b>	< 0.3	<b>0.14 J</b>
	Sulfate	mg/l	<b>23</b>	<b>23</b>	<b>23</b>	NA	<b>18.1</b>	<b>20.2</b>	NA
	TDS	mg/l	<b>187</b>	<b>209</b>	<b>183</b>	NA	<b>208</b>	<b>206</b>	NA
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.102</b>	<b>0.0963</b>	NA	<b>0.097</b>	<b>0.095</b>	<b>0.1</b>	<b>0.096</b>
	Beryllium	mg/l	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	NA	< 0.001	NA	NA	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	NA	< 0.01	NA	NA	<b>0.015</b>
	Cobalt	mg/l	<b>0.0023 J</b>	<b>0.0022 J</b>	NA	< 0.01	<b>0.0025 J</b>	<b>0.0023 J</b>	<b>0.0024 J</b>
	Lead	mg/l	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.005
	Lithium	mg/l	< 0.05	< 0.05	NA	< 0.05	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	< 0.0005	< 0.0005	NA	< 0.0005	NA	NA	<b>0.000049 J</b>
	Molybdenum	mg/l	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	0.789 U	0.592 U	NA	0.916 U	0.666 U	0.774 U	<b>1.19</b>
	Selenium	mg/l	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.01
	Thallium	mg/l	<b>0.0001 J</b>	<b>0.0001 J</b>	NA	< 0.001	NA	NA	< 0.001
Field	Conductivity	µS/cm	429.2	415.2	NA	412.32	NA	NA	402.4
	Dissolved Oxygen	mg/l	0.19	0.2	NA	1.19	NA	NA	0.17
	Oxidation Reduction Potential	mV	14.4	90	NA	57.78	NA	NA	224.4
	Temperature	C	19.05	19.85	NA	19.74	NA	NA	18.43
	Turbidity	ntu	1.46	3.95	NA	3.03	NA	NA	3.44

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWC-27S	YGWC-27S	YGWC-27I	YGWC-27I	YGWC-27I	YGWC-27I	YGWC-27I	YGWC-27I
		YGWC-27S (021320)	YGWC-27S (032020)	YGWC-27I (060816)	YGWC-27I (080116)	YGWC-27I (092016)	YGWC-27I (110716)	YGWC-27I (111817)	YGWC-27I (022317)
		2/13/2020	3/20/2020	6/8/2016	8/1/2016	9/20/2016	11/7/2016	1/18/2017	5/8/2017
Appendix III	pH	SU	6.31	6.18	6.32	6.34	6.36	6.3	6.31
	Boron	mg/l	NA	1.4	2.2	2	2.02	1.91	1.69
	Calcium	mg/l	NA	42.1	25	21.4	26.3	26.1	25.6
	Chloride	mg/l	NA	17.7	14	13	13	14	14
	Fluoride	mg/l	0.11 J	0.097 J	0.086 J	0.14 J	< 0.3	< 0.3	< 0.3
	Sulfate	mg/l	NA	21.1	3.2	3.6	5.6	5.4	3.5
	TDS	mg/l	NA	182	190	191	205	264	167
Appendix IV	Antimony	mg/l	< 0.00027	0.00030 JB	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.00035	< 0.00035	0.0011 J	0.0009 J	< 0.005	< 0.005	< 0.005
	Barium	mg/l	0.097	0.095	0.081	0.0838	0.0687	0.0639	0.0645
	Beryllium	mg/l	< 0.000074	< 0.000074	< 0.0025	< 0.003	0.00009 J	0.0001 J	0.0002 J
	Cadmium	mg/l	< 0.00011	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.00039	0.00050 J	< 0.0025	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	0.0026 J	0.0022 J	0.0016 J	0.0014 J	0.002 J	0.0016 J	0.0017 J
	Lead	mg/l	0.000062 J	0.000085 J	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	< 0.00078	< 0.00078	0.0067	0.008 J	0.011 J	0.0097 J	0.01 J
	Mercury	mg/l	< 0.00014	NA	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.00095	< 0.00095	0.0011 J	0.0018 J	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pCi/l	0.961	1.50	1.81	3.79	3.12	2.66	3.44
	Selenium	mg/l	< 0.0013	< 0.0013	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	0.00010 J	0.00011 J	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	NA	336.68	330	336.3	336.8	365.6
	Dissolved Oxygen	mg/l	NA	NA	0.21	0.19	0.29	0.29	0.2
	Oxidation Reduction Potential	mV	NA	NA	-103.6	-62.2	-28.61	5.1	-76.9
	Temperature	C	NA	NA	20.93	21.33	21.24	18.87	18.79
	Turbidity	ntu	NA	NA	3.87	0.78	2.22	1.71	1.59

**Appendix C. Historical Analytical Data**

**2020 Semiannual Groundwater Monitoring and Corrective Action Report**

**Georgia Power Company**

**Plant Yates - Ash Pond 2**

**Georgia Power Company**

Analyte	Units	YGWC-27I									
		YGWC-27I (063017)	YGWC-27I (100917)	YGWC-27I (032918)	YGWC-27I (061318)	YGWC-27I (100218)	YGWC-27I (022719)	YGWC-27I (040119)	YGWC-27I (092619)	YGWC-27I (021320)	
		6/30/2017	10/9/2017	3/29/2018	6/13/2018	10/2/2018	2/27/2019	4/1/2019	9/26/2019	2/13/2020	
Appendix III	pH	SU	6.21	6.26	6.36	6.28	5.9	6.31	6.43	6.3	6.40
	Boron	mg/l	<b>2.28</b>	<b>1.82</b>	NA	<b>2.2</b>	<b>1.9</b>	NA	<b>2.4</b>	<b>1.9</b>	NA
	Calcium	mg/l	<b>27.2</b>	<b>27.3</b>	NA	<b>29.4</b>	<b>29.2</b>	NA	<b>27.4</b>	<b>24.2</b>	NA
	Chloride	mg/l	<b>14</b>	<b>14</b>	NA	<b>13.1</b>	<b>13.8</b>	NA	<b>14.2</b>	<b>14.3</b>	NA
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	<b>0.034 J</b>	<b>0.14 J</b>	< 0.050
	Sulfate	mg/l	<b>5</b>	<b>5.1</b>	NA	<b>6.1</b>	<b>6.1</b>	NA	<b>4.1</b>	<b>4.2</b>	NA
	TDS	mg/l	<b>193</b>	<b>185</b>	NA	<b>219</b>	<b>227</b>	NA	<b>198</b>	<b>198</b>	NA
Appendix IV	Antimony	mg/l	< 0.003	NA	< 0.003	NA	NA	< 0.003	NA	NA	< 0.00027
	Arsenic	mg/l	< 0.005	NA	<b>0.0006 J</b>	< 0.005	< 0.005	<b>0.00069 J</b>	< 0.005	<b>0.00058 J</b>	<b>0.00055 J</b>
	Barium	mg/l	<b>0.0666</b>	NA	<b>0.062</b>	<b>0.063</b>	<b>0.062</b>	<b>0.066</b>	<b>0.066</b>	<b>0.065</b>	<b>0.063</b>
	Beryllium	mg/l	<b>0.0002 J</b>	NA	< 0.003	NA	NA	<b>0.00022 J</b>	<b>0.00022 J</b>	<b>0.0002 J</b>	<b>0.00021 J</b>
	Cadmium	mg/l	< 0.001	NA	< 0.001	NA	NA	< 0.001	< 0.001	< 0.0025	< 0.00011
	Chromium	mg/l	< 0.01	NA	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.00039
	Cobalt	mg/l	<b>0.0044 J</b>	NA	<b>0.051</b>	<b>0.092</b>	<b>0.078</b>	<b>0.035</b>	<b>0.025</b>	<b>0.014</b>	<b>0.012</b>
	Lead	mg/l	< 0.005	NA	< 0.005	NA	NA	< 0.005	NA	NA	< 0.00046
	Lithium	mg/l	<b>0.0108 J</b>	NA	<b>0.011 J</b>	<b>0.014 J</b>	<b>0.012 J</b>	<b>0.0096 J</b>	<b>0.0082 J</b>	<b>0.0075 J</b>	<b>0.0079 J</b>
	Mercury	mg/l	< 0.0005	NA	< 0.0005	NA	NA	<b>0.000054 J</b>	<b>0.000045 J</b>	< 0.0005	< 0.00014
	Molybdenum	mg/l	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0013 J</b>	<b>0.0014 J</b>
	Combined Radium - 226/228	pCi/l	<b>2.85</b>	NA	<b>1.41</b>	<b>3.69</b>	<b>4.5</b>	<b>4.69</b>	<b>5</b>	<b>3.37</b>	<b>4.48</b>
	Selenium	mg/l	< 0.01	NA	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.0013
	Thallium	mg/l	< 0.001	NA	< 0.001	NA	NA	< 0.001	NA	NA	< 0.000052
Field	Conductivity	µS/cm	334.7	NA	342.23	NA	NA	340.1	322.5	335.94	NA
	Dissolved Oxygen	mg/l	0.19	NA	0.21	NA	NA	0.21	0.3	0.13	NA
	Oxidation Reduction Potential	mV	7.8	NA	-8.62	NA	NA	38.6	6.8	51.3	NA
	Temperature	C	20.24	NA	19.46	NA	NA	19.31	18.95	21.57	NA
	Turbidity	ntu	0.92	NA	1.49	NA	NA	0.95	1.87	0.72	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWC-27I	YGWC-28S								
		YGWC-27I (032020)	YGWC-28S (060916)	YGWC-28S (080216)	YGWC-28S (092116)	YGWC-28S (110716)	YGWC-28S (011817)	YGWC-28S (022117)	YGWC-28S (050517)		
		3/20/2020	6/9/2016	8/2/2016	9/21/2016	11/7/2016	1/18/2017	2/21/2017	7/7/2017		
Appendix III	pH	SU	6.32	6.39	6.35	6.39	6.36	6.23	6.42	6.4	6.46
	Boron	mg/l	<b>2.1</b>	<b>2.3</b>	<b>2.21</b>	<b>2.54</b>	<b>2.49</b>	<b>2.04</b>	<b>2.29</b>	<b>3.41</b>	<b>3.01</b>
	Calcium	mg/l	<b>30.3</b>	<b>26</b>	<b>25.8</b>	<b>24.9</b>	<b>25.1</b>	<b>26.1</b>	<b>29</b>	<b>28.1</b>	<b>28.6</b>
	Chloride	mg/l	<b>13.0</b>	<b>19</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>19</b>	<b>21</b>	<b>20</b>
	Fluoride	mg/l	< 0.050	<b>0.16 J</b>	<b>0.5</b>	<b>0.25 J</b>	<b>0.27 J</b>	<b>0.34</b>	<b>0.27 J</b>	<b>0.2 J</b>	<b>0.18 J</b>
	Sulfate	mg/l	<b>5.2</b>	<b>5.2</b>	<b>4.5</b>	< 4.1	<b>4.3</b>	<b>2.7</b>	<b>3</b>	< 4.7	<b>2.7</b>
	TDS	mg/l	<b>195</b>	<b>210</b>	<b>202</b>	<b>216</b>	<b>399</b>	<b>215</b>	<b>198</b>	<b>347</b>	<b>236</b>
Appendix IV	Antimony	mg/l	<b>0.00033 JB</b>	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	<b>0.00042 J</b>	<b>0.00094 J</b>	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.062</b>	<b>0.22</b>	<b>0.212</b>	<b>0.228</b>	<b>0.214</b>	<b>0.213</b>	<b>0.222</b>	<b>0.219</b>	<b>0.205</b>
	Beryllium	mg/l	<b>0.00023 J</b>	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.00011	< 0.0025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.00039	< 0.0025	<b>0.0005 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	<b>0.014</b>	<b>0.00085 J</b>	<b>0.0008 J</b>	<b>0.0008 J</b>	<b>0.001 J</b>	<b>0.001 J</b>	<b>0.0011 J</b>	<b>0.0012 J</b>	<b>0.0012 J</b>
	Lead	mg/l	< 0.000046	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	<b>0.0091 J</b>	< 0.005	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
	Mercury	mg/l	NA	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	<b>0.0014 J</b>	< 0.015	<b>0.0006 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0007 J</b>	< 0.01
	Combined Radium - 226/228	pCi/l	<b>4.13</b>	<b>0.715</b>	0.526 U	0.176 U	0.609 U	0.0752 U	0.404 U	0.868 U	<b>1.29</b>
	Selenium	mg/l	< 0.0013	< 0.0013	< 0.01	<b>0.001 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.000052	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	NA	409	403.5	422.16	436	449.5	450.2	457.8	461.5
	Dissolved Oxygen	mg/l	NA	0.07	0.09	0.34	0.25	0.15	0.22	0.13	0.11
	Oxidation Reduction Potential	mV	NA	-54	-55.1	-46.4	-26.2	-22.6	-47.7	-138	-60.2
	Temperature	C	NA	20.26	20.51	20.08	19.85	18.79	18.18	16.96	22.1
	Turbidity	ntu	NA	NA	2.43	3.71	6.52	3.49	NA	4.83	4.84

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWC-28S								
		YGWC-28S (100917)	YGWC-28S (033018)	YGWC-28S (061218)	YGWC-28S (100318)	YGWC-28S (022719)	YGWC-28S (040219)	YGWC-28S (092619)	YGWC-28S (021320)	YGWC-28S (031920)
		10/9/2017	3/30/2018	6/12/2018	10/3/2018	2/27/2019	4/2/2019	9/26/2019	2/13/2020	3/19/2020
Appendix III	pH	SU	6.37	6.35	6.47	6.01	6.38	6.7	6.47	6.53
	Boron	mg/l	<b>2.76</b>	NA	<b>2.9</b>	<b>2.4</b>	NA	<b>2.9</b>	<b>2.5</b>	NA
	Calcium	mg/l	<b>27.3</b>	NA	<b>26.4</b>	<b>25.8</b>	NA	<b>25.7</b>	<b>26.1</b>	NA
	Chloride	mg/l	<b>20</b>	NA	<b>19.3</b>	<b>20.2</b>	NA	<b>19.5</b>	<b>19.5</b>	NA
	Fluoride	mg/l	< 0.3	< 0.3	<b>0.13 J</b>	<b>0.31</b>	<b>0.22 J</b>	<b>0.14 J</b>	<b>0.28 J</b>	<b>0.18 J</b>
	Sulfate	mg/l	<b>2.9</b>	NA	<b>2.9</b>	<b>2.1</b>	NA	<b>2.4</b>	<b>1.6</b>	NA
	TDS	mg/l	<b>204</b>	NA	<b>243</b>	<b>237</b>	NA	< 25	<b>239</b>	NA
Appendix IV	Antimony	mg/l	NA	< 0.003	NA	NA	< 0.003	NA	NA	< 0.00027
	Arsenic	mg/l	NA	<b>0.00069 J</b>	<b>0.00075 J</b>	<b>0.0007 J</b>	< 0.005	< 0.005	<b>0.00057 J</b>	<b>0.00065 J</b>
	Barium	mg/l	NA	<b>0.2</b>	<b>0.21</b>	<b>0.22</b>	<b>0.21</b>	<b>0.2</b>	<b>0.18</b>	<b>0.21</b>
	Beryllium	mg/l	NA	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003	< 0.000074
	Cadmium	mg/l	NA	< 0.001	NA	NA	< 0.001	< 0.001	< 0.0025	< 0.00011
	Chromium	mg/l	NA	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.00039
	Cobalt	mg/l	NA	< 0.01	<b>0.0011 J</b>	<b>0.0013 J</b>	<b>0.00093 J</b>	<b>0.0011 J</b>	<b>0.00098 J</b>	<b>0.00092 J</b>
	Lead	mg/l	NA	< 0.005	NA	NA	< 0.005	NA	NA	<b>0.000054 J</b>
	Lithium	mg/l	NA	< 0.05	< 0.05	< 0.25 o	< 0.05	< 0.05	< 0.03	< 0.00078
	Mercury	mg/l	NA	< 0.0005	NA	NA	<b>0.000052 J</b>	< 0.0005	< 0.0005	< 0.00014
	Molybdenum	mg/l	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00095
	Combined Radium - 226/228	pCi/l	NA	0.195 U	1.02 U	0.713 U	0.543 U	0.521 U	<b>1.16</b>	<b>1.04</b>
	Selenium	mg/l	NA	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.0013
	Thallium	mg/l	NA	< 0.001	NA	NA	< 0.001	NA	NA	< 0.000052
Field	Conductivity	µS/cm	NA	453.22	NA	NA	388.1	448.1	464.3	NA
	Dissolved Oxygen	mg/l	NA	0.07	NA	NA	0.1	0.1	0.09	NA
	Oxidation Reduction Potential	mV	NA	-56.85	NA	NA	-100.7	-62.1	-38.7	NA
	Temperature	C	NA	18.96	NA	NA	19.23	18.88	20.97	NA
	Turbidity	ntu	NA	9.68	NA	NA	4.92	4.73	3.58	NA

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

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Georgia Power Company

Analyte	Units	YGWC-28I								
		YGWC-28I (060916)	YGWC-28I (080216)	YGWC-28I (092116)	YGWC-28I (110816)	YGWC-28I (011817)	YGWC-28I (022217)	YGWC-28I (050517)	YGWC-28I (070517)	YGWC-28I (100517)
		6/9/2016	8/2/2016	9/21/2016	11/8/2016	1/18/2017	2/22/2017	5/5/2017	7/5/2017	10/5/2017
Appendix III	pH	SU	6.42	6.43	6.45	6.37	6.27	6.35	6.36	6.4
	Boron	mg/l	<b>2.2</b>	<b>2.22</b>	<b>2.65</b>	<b>2.44</b>	<b>1.88</b>	<b>2.05</b>	<b>3.01</b>	<b>2.7</b>
	Calcium	mg/l	<b>36</b>	<b>35.5</b>	<b>33.2</b>	<b>33.8</b>	<b>33.4</b>	<b>33.8</b>	<b>33.5</b>	<b>33.4</b>
	Chloride	mg/l	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>19 o</b>	<b>18</b>
	Fluoride	mg/l	<b>0.098 J</b>	<b>0.38</b>	<b>0.08 J</b>	<b>0.24 J</b>	<b>0.12 J</b>	< 0.3	<b>0.08 J</b>	<b>0.11 J</b>
	Sulfate	mg/l	<b>8.7</b>	<b>7.5</b>	<b>8</b>	<b>8.3</b>	<b>8</b>	<b>8.2</b>	< 8.4	<b>8.1</b>
	TDS	mg/l	<b>240</b>	<b>226</b>	<b>214</b>	<b>229</b>	<b>243</b>	<b>310</b>	<b>289</b>	<b>217</b>
Appendix IV	Antimony	mg/l	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	<b>0.1</b>	<b>0.0836</b>	<b>0.0889</b>	<b>0.0886</b>	<b>0.0862</b>	<b>0.0915</b>	<b>0.0891</b>	<b>0.0862</b>
	Beryllium	mg/l	< 0.0025	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	<b>0.00055 J</b>	<b>0.0001 J</b>	<b>0.0001 J</b>	<b>0.00009 J</b>	<b>0.00009 J</b>	<b>0.0001 J</b>	<b>0.00009 J</b>	<b>0.0002 J</b>
	Chromium	mg/l	< 0.0025	<b>0.0005 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	<b>0.00042 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Lead	mg/l	< 0.0013	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	<b>0.0073</b>	<b>0.0073 J</b>	<b>0.0067 J</b>	<b>0.0072 J</b>	<b>0.0067 J</b>	<b>0.0064 J</b>	<b>0.007 J</b>	<b>0.0072 J</b>
	Mercury	mg/l	< 0.0002	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	<b>0.0011 J</b>	<b>0.0014 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0014 J</b>	<b>0.0014 J</b>
	Combined Radium - 226/228	pCi/l	0.194 U	0.331 U	0.335 U	0.245 U	0.261 U	0.516 U	0.713 U	0.292 U
	Selenium	mg/l	< 0.0013	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0012 J</b>	< 0.01	< 0.01
	Thallium	mg/l	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Field	Conductivity	µS/cm	402	412.3	402.64	416.4	412.6	394.8	417.5	400.3
	Dissolved Oxygen	mg/l	0.45	0.44	0.75	0.19	0.25	0.26	0.22	0.2
	Oxidation Reduction Potential	mV	-32.4	7	25.26	75.7	64.2	90	-14.7	87.8
	Temperature	C	19.33	21.68	22	19.59	19.46	18.61	16.52	22.71
	Turbidity	ntu	2.9	0.86	1.33	0.26	0.13	0.56	0.8	0.5

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Georgia Power Company

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Georgia Power Company

Analyte	Units	YGWC-28I	YGWC-29I								
		YGWC-28I (033018)	YGWC-28I (061218)	YGWC-28I (100318)	YGWC-28I (022719)	YGWC-28I (040119)	YGWC-28I (092619)	YGWC-28I (021320)	YGWC-28I (031920)	YGWC-29I (060916)	
		3/30/2018	6/12/2018	10/3/2018	2/27/2019	4/1/2019	9/26/2019	2/13/2020	3/19/2020	6/9/2016	
Appendix III	pH	SU	6.39	6.42	6.21	6.32	6.3	6.43	6.49	7.01	6.19
	Boron	mg/l	NA	<b>2.8</b>	<b>2.3</b>	NA	<b>2.7</b>	<b>2.8</b>	NA	<b>2.4</b>	<b>0.88</b>
	Calcium	mg/l	NA	<b>33.4</b>	<b>32.6</b>	NA	<b>33.8</b>	<b>32</b>	NA	<b>37.3</b>	<b>12</b>
	Chloride	mg/l	NA	<b>17.6</b>	<b>17.7</b>	NA	<b>17.2</b>	<b>17.3</b>	NA	<b>16.0</b>	<b>15</b>
	Fluoride	mg/l	< 0.3	< 0.3	< 0.3	<b>0.14 J</b>	<b>0.078 J</b>	<b>0.29 J</b>	<b>0.14 J</b>	<b>0.070 J</b>	<b>0.085 J</b>
	Sulfate	mg/l	NA	<b>8.2</b>	<b>8</b>	NA	<b>8.2</b>	<b>7.9</b>	NA	<b>9.1</b>	<b>33</b>
	TDS	mg/l	NA	<b>234</b>	<b>232</b>	NA	<b>238</b>	<b>241</b>	NA	<b>212</b>	<b>150</b>
Appendix IV	Antimony	mg/l	< 0.003	NA	NA	< 0.003	NA	NA	< 0.00027	< 0.00027	< 0.0025
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.00035	< 0.00035	< 0.0013
	Barium	mg/l	<b>0.087</b>	<b>0.088</b>	<b>0.092</b>	<b>0.086</b>	<b>0.088</b>	<b>0.087</b>	<b>0.089</b>	<b>0.089</b>	<b>0.082</b>
	Beryllium	mg/l	< 0.003	NA	NA	< 0.003	< 0.003	< 0.003	< 0.000074	< 0.000074	< 0.0025
	Cadmium	mg/l	< 0.001	NA	NA	<b>0.00014 J</b>	<b>0.00043 J</b>	< 0.0025	<b>0.00013 J</b>	<b>0.00016 J</b>	< 0.0025
	Chromium	mg/l	< 0.01	NA	NA	< 0.01	< 0.01	<b>0.00044 J</b>	<b>0.00047 J</b>	< 0.00039	< 0.0025
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.00030	< 0.00030	<b>0.00052 J</b>
	Lead	mg/l	< 0.005	NA	NA	< 0.005	NA	NA	< 0.00046	< 0.00046	< 0.0013
	Lithium	mg/l	<b>0.007 J</b>	<b>0.0073 J</b>	<b>0.0069 J</b>	<b>0.0063 J</b>	<b>0.0065 J</b>	<b>0.0064 J</b>	<b>0.0069 J</b>	<b>0.0070 J</b>	<b>0.0075</b>
	Mercury	mg/l	< 0.0005	NA	NA	<b>0.000048 J</b>	< 0.0005	< 0.0005	< 0.00014	NA	< 0.0002
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0013 J</b>	<b>0.0013 J</b>	<b>0.0014 J</b>	< 0.015
	Combined Radium - 226/228	pCi/l	0.948 U	0.869 U	0.864 U	0.947 U	0.162 U	1.06 U	<b>1.12</b>	<b>0.913</b>	<b>0.523</b>
	Selenium	mg/l	< 0.01	NA	NA	< 0.01	< 0.01	< 0.01	< 0.0013	< 0.0013	< 0.0013
	Thallium	mg/l	< 0.001	NA	NA	< 0.001	NA	NA	< 0.000052	< 0.000052	< 0.0005
Field	Conductivity	µS/cm	412.71	NA	NA	352.4	365.3	398.84	NA	NA	259.6
	Dissolved Oxygen	mg/l	0.96	NA	NA	0.92	0.43	0.41	NA	NA	0.21
	Oxidation Reduction Potential	mV	108.93	NA	NA	89.7	158.4	53.4	NA	NA	28.6
	Temperature	C	17.01	NA	NA	19.33	19.04	24.47	NA	NA	19.7
	Turbidity	ntu	1.09	NA	NA	0.2	1.1	0.49	NA	NA	1.41

## Appendix C. Historical Analytical Data

## 2020 Semiannual Groundwater Monitoring and Corrective Action Report

Georgia Power Company

Plant Yates - Ash Pond 2

Georgia Power Company

Analyte	Units	YGWC-29I								
		YGWC-29I (080216)	YGWC-29I (092116)	YGWC-29I (110716)	YGWC-29I (011917)	YGWC-29I (022217)	YGWC-29I (050817)	YGWC-29I (070517)	YGWC-29I (100517)	YGWC-29I (032918)
		8/2/2016	9/21/2016	11/7/2016	1/19/2017	2/22/2017	5/8/2017	7/5/2017	10/5/2017	3/29/2018
Appendix III	pH	SU	6.17	6.2	6.1	6.22	6.12	6.11	6.17	6.17
	Boron	mg/l	<b>0.872</b>	<b>0.853</b>	<b>0.815</b>	<b>0.803</b>	<b>0.855</b>	<b>0.884</b>	<b>0.811</b>	<b>0.851</b>
	Calcium	mg/l	<b>11.7</b>	<b>11.1</b>	<b>11.4</b>	<b>12</b>	<b>11.2</b>	<b>11.2</b>	<b>11.9</b>	<b>12</b>
	Chloride	mg/l	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>13</b>	<b>15</b>	<b>14</b>	<b>15</b>
	Fluoride	mg/l	<b>0.09 J</b>	<b>0.09 J</b>	< 0.3	< 0.3	< 0.3	<b>0.06 J</b>	<b>0.08 J</b>	< 0.3
	Sulfate	mg/l	<b>32</b>	<b>32</b>	<b>33</b>	<b>32</b>	<b>31</b>	<b>32</b>	<b>31</b>	<b>31</b>
	TDS	mg/l	<b>155</b>	<b>138</b>	<b>291</b>	<b>145</b>	<b>185</b>	<b>114</b>	<b>136</b>	<b>139</b>
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Barium	mg/l	<b>0.0781</b>	<b>0.0782</b>	<b>0.0712</b>	<b>0.0689</b>	<b>0.0741</b>	<b>0.0725</b>	<b>0.0677</b>	NA
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA
	Cadmium	mg/l	<b>0.0001 J</b>	<b>0.0002 J</b>	<b>0.0002 J</b>	<b>0.0001 J</b>	<b>0.0001 J</b>	<b>0.0002 J</b>	<b>0.0002 J</b>	NA
	Chromium	mg/l	<b>0.0005 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Cobalt	mg/l	<b>0.0006 J</b>	<b>0.0007 J</b>	< 0.01	< 0.01	< 0.01	< 0.01	<b>0.0003 J</b>	NA
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA
	Lithium	mg/l	<b>0.0078 J</b>	<b>0.0074 J</b>	<b>0.0057 J</b>	<b>0.0055 J</b>	<b>0.0063 J</b>	<b>0.0066 J</b>	<b>0.0058 J</b>	NA
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	NA
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Combined Radium - 226/228	pCi/l	<b>1.25</b>	1.21 U	<b>1.16</b>	0.933 U	1.45 U	0.21 U	0.62 U	NA
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA
Field	Conductivity	µS/cm	260.3	252.4	259.5	285	252.2	268.8	257.8	NA
	Dissolved Oxygen	mg/l	0.24	0.11	0.47	0.35	0.41	0.28	0.26	NA
	Oxidation Reduction Potential	mV	49.6	48.16	103.9	-10.8	98.9	13.1	79.5	NA
	Temperature	C	22.01	20.92	20.98	19.41	17.72	19.5	21.77	NA
	Turbidity	ntu	0.01	1.75	0.25	0.59	0.39	0.48	0.42	NA

**Appendix C. Historical Analytical Data**

**2020 Semiannual Groundwater Monitoring and Corrective Action Report**

**Georgia Power Company**

**Plant Yates - Ash Pond 2**

**Georgia Power Company**

Analyte	Units	YGWC-29I						
		YGWC-29I (061118)	YGWC-29I (100218)	YGWC-29I (022719)	YGWC-29I (040119)	YGWC-29I (092519)	YGWC-29I (021320)	YGWC-29I (032020)
		6/11/2018	10/2/2018	2/27/2019	4/1/2019	9/25/2019	2/13/2020	3/20/2020
Appendix III	pH	SU	6.17	6.17	6.19	6.03	6.21	6.32
	Boron	mg/l	<b>0.9</b>	<b>0.81</b>	NA	<b>0.85</b>	<b>0.73</b>	NA
	Calcium	mg/l	<b>12.1</b>	<b>11.7 J</b>	NA	<b>11.9 J</b>	<b>10.7</b>	NA
	Chloride	mg/l	<b>13.6</b>	<b>13.4</b>	NA	<b>13.1</b>	<b>11.3</b>	NA
	Fluoride	mg/l	< 0.3	< 0.3	<b>0.15 J</b>	<b>0.059 J</b>	<b>0.054 J</b>	<b>0.053 J</b>
	Sulfate	mg/l	<b>30.6</b>	<b>30.8</b>	NA	<b>30.4</b>	<b>30</b>	NA
	TDS	mg/l	<b>156</b>	<b>154</b>	NA	<b>147</b>	<b>162</b>	NA
Appendix IV	Antimony	mg/l	NA	NA	< 0.003	NA	NA	< 0.00027
	Arsenic	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.00035
	Barium	mg/l	<b>0.068</b>	<b>0.067</b>	<b>0.067</b>	<b>0.063</b>	<b>0.061</b>	<b>0.053</b>
	Beryllium	mg/l	NA	NA	< 0.003	< 0.003	< 0.003	< 0.00074
	Cadmium	mg/l	NA	NA	<b>0.00026 J</b>	<b>0.00022 J</b>	<b>0.00024 J</b>	<b>0.00018 J</b>
	Chromium	mg/l	NA	NA	< 0.01	< 0.01	< 0.01	< 0.00039
	Cobalt	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.00030
	Lead	mg/l	NA	NA	< 0.005	NA	NA	< 0.00046
	Lithium	mg/l	<b>0.0064 J</b>	<b>0.006 J</b>	<b>0.0053 J</b>	<b>0.0052 J</b>	<b>0.0057 J</b>	<b>0.0051 J</b>
	Mercury	mg/l	NA	NA	<b>0.000047 J</b>	<b>0.000039 J</b>	< 0.0005	< 0.00014
	Molybdenum	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00095
	Combined Radium - 226/228	pCi/l	1.27 U	0.442 U	0.902 U	0.584 U	1.03 U	<b>0.806</b>
	Selenium	mg/l	NA	NA	< 0.01	< 0.01	< 0.01	< 0.0013
Field	Thallium	mg/l	NA	NA	< 0.001	NA	NA	< 0.000052
	Conductivity	µS/cm	NA	NA	243	248.9	252.13	NA
	Dissolved Oxygen	mg/l	NA	NA	0.2	0.41	0.61	NA
	Oxidation Reduction Potential	mV	NA	NA	51	136.6	68.7	NA
	Temperature	C	NA	NA	18.03	18.72	27.94	NA
	Turbidity	ntu	NA	NA	1.02	0.4	0.52	NA

**Notes:**

1. Analytical results are reported in milligrams per liter except for combined radium results, which are reported in picoCuries per liter and pH in standard units.
2. Appendix III = Indicator parameters evaluated during Detection Monitoring.
3. Appendix IV = Parameters evaluated during Assessment Monitoring.
4. NA = Not analyzed for this constituent.
5. < Analyte was not detected above the laboratory method detection limit (MDL).
6. Detections are in **bold**

**Acronyms and Abbreviations:**

TDS = Total Dissolved Solids  
ntu = nephelometric turbidity units  
pCi/L = picoCuries per liter  
mg/L = milligrams per liter  
mV = millivolts  
C = Celsius  
S.U. = standard units

**Laboratory Qualifiers:**

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

U = The substance was detected below the Minimum Detection Concentration (MDC) and the precision of the laboratory instruments could not

# **APPENDIX D**

## **Statistical Analysis**



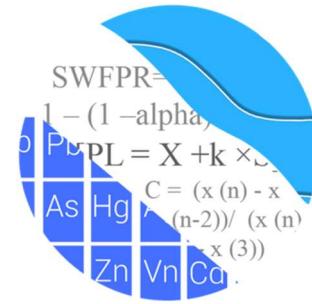
**Appendix III Statistically Significant Increase Summary (March 2020)**

<b>Appendix III Parameter</b>	<b>Monitoring Wells</b>
Boron	YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28I, YGWC-28S, YGWC-29I
Calcium	YGWC-27S, YGWC-28I
Chloride	YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28I, YGWC-28S, YGWC-29I
Sulfate	YGWC-26I, YGWC-26S, YGWC-27S, YGWC-29I

# GROUNDWATER STATS CONSULTING

August 26, 2020

Southern Company Services  
Attn: Mr. Joju Abraham  
241 Ralph McGill Blvd NE, Bin 10160  
Atlanta, GA 30308-3374



Re: Plant Yates Ash Pond 2 (AP-2)  
Statistical Analysis March 2020

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide March 2020 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of the analysis of groundwater data for Georgia Power Company's Plant Yates AP-2. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the USEPA Unified Guidance (2009).

Sampling for the Appendix III parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of Appendix IV constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. A list of all parameters is provided below.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient well:** YGWA-1D, YGWA-1I, YGWA-2I, YGWA-3D, YGWA-3I, YGWA-14S, and YGWA-30I
- **Downgradient wells:** YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28I, YGWC-28S, and YGWC-29I

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed Kristina Rayner, Groundwater Statistician and Founder of Groundwater Stats Consulting.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. Statistical analysis of mercury at all wells will be provided in an addendum to this report when the results are received from the laboratory. A summary of well/constituent pairs with 100% nondetects follows this letter.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

A substitution of the most recent reporting limit is used for nondetect data. In the case of cobalt and lithium, due to varying detection limits, the most recent reporting limits of 0.005 mg/L and 0.03 mg/L were substituted, respectively, across all wells.

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

## **Summary of Statistical Methods – Appendix III Parameters:**

Based on the earlier evaluation described above, the following method was selected:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

## **Summary of Background Screening – Conducted in October 2017**

### Outlier and Trend Testing

The original background screening was conducted in 2017 by MacStat Consulting. Values identified as outliers were flagged in the database and excluded prior to construction of statistical limits. Interwell prediction limits, combined with a 1-of-2 resample plan, were recommended. During this analysis, data were screened for the purpose of updating the statistical limits as described below.

Time series plots 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 upgradient wells for Appendix III and all wells for Appendix IV parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, a couple outliers were identified. While this is not the case in the present data set, when the most recent value is identified as an outlier, values are not flagged in the database at this time as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Only one of the outliers identified by Tukey's method was flagged in the database as all other values were either similar to remaining measurements within the same well and neighboring wells, or the values were reported nondetects. When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages will display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data. When the reporting limit was higher than the Regional Screening Levels discussed below, nondetects were substituted with one half the reporting limit. An updated summary of outliers and Tukey's test results follows this letter (Figure C).

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at upgradient wells for Appendix III parameters and all wells for Appendix IV parameters to identify statistically significant increasing or decreasing trends (Figure D). In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses for the Appendix III and IV parameters showed statistically significant decreasing trends for a handful of constituents and statistically significant increasing trends for calcium, cobalt, combined radium 226 + 228, and sulfate. Most of the trends noted were relatively low in magnitude when compared to average concentrations, and the background time period is short with only three years of record, making it difficult to separate trends from normal year-to-year variation; therefore, no adjustments were made to the data sets. If the observed decreasing or increasing trends persist over a longer time frame, some records may need to be truncated.

### Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) is typically used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter. While data were further tested for

intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

### **Statistical Analysis of Appendix III Parameters – March 2020**

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through March 2020 (Figure E). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Several prediction limit exceedances were noted for Appendix III parameters. A summary table of the interwell prediction limits follows this letter.

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure F). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. Statistically significant increasing trends were noted for calcium and sulfate in upgradient well YGWA-1D, and sulfate in upgradient well YGWA-3D. Statistically significant decreasing trends were noted for calcium in upgradient well YGWA-14S, chloride in downgradient wells YGWC-26S, YGWC-27S, and YGWC-29I, and sulfate in downgradient wells YGWC-27S and YGWC-29I. A summary of the trend test results follows this letter.

### **Statistical Analysis of Appendix IV Parameters – March 2020**

Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents (Figure G). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for

barium and radium. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a).

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

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

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

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

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the March 2020 sample event for the federal and state rules (Figures H and I, respectively). To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in accordance with the federal and state requirements in each downgradient well (Figures J and K, respectively). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the CCR Rules for the federal requirements and the Georgia EPD Rules 391-3-4-.10(6)(a) for the State requirements. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. For both federal and state confidence intervals, no exceedances were noted. Summaries of the confidence intervals follow this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Yates AP-2. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew T. Collins  
Groundwater Analyst



Kristina L. Rayner  
Groundwater Statistician

# 100% Nondetect Well-Constituent Pairs

Page 1

Date: 5/13/2020 10:39 AM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Antimony (mg/L)

YGWA-30I, YGWA-3I, YGWC-28I, YGWC-28S, YGWC-29I

Arsenic (mg/L)

YGWA-14S, YGWC-26I, YGWC-26S, YGWC-27S, YGWC-28I, YGWC-29I

Beryllium (mg/L)

YGWA-1D, YGWA-1I, YGWA-2I, YGWA-3D, YGWA-3I, YGWC-26I, YGWC-27S, YGWC-28I, YGWC-28S, YGWC-29I

Cadmium (mg/L)

YGWA-1I, YGWA-2I, YGWA-30I, YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28S

Chromium (mg/L)

YGWA-14S, YGWC-27I

Cobalt (mg/L)

YGWA-14S, YGWA-1D, YGWA-2I, YGWA-3D, YGWA-3I, YGWC-26I

Lead (mg/L)

YGWA-1I, YGWA-2I, YGWA-30I, YGWA-3I, YGWC-27I, YGWC-28I, YGWC-29I

Lithium (mg/L)

YGWA-14S, YGWC-26S, YGWC-27S, YGWC-28S

Mercury (mg/L)

YGWA-2I

Molybdenum (mg/L)

YGWA-14S, YGWA-30I, YGWC-26I, YGWC-26S, YGWC-27S, YGWC-29I

Selenium (mg/L)

YGWA-1D, YGWA-1I, YGWA-2I, YGWA-30I, YGWA-3D, YGWA-3I, YGWC-27I, YGWC-27S, YGWC-29I

Thallium (mg/L)

YGWA-1D, YGWA-2I, YGWA-30I, YGWA-3I, YGWC-26I, YGWC-27I, YGWC-28I, YGWC-28S, YGWC-29I

## Outlier Summary

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:53 PM

YGWC-261 Combined Radium 226 + 228 (pCi/L)

6/8/2016

6.68 (o)

### Appendix III Tukey's Outlier Analysis - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/11/2020, 4:19 PM

Constituent	Well	Outlier	Value(s)	Method	N	Mean	Std. Dev.	Distribution	Normality Test
Chloride (mg/L)	YGWA-14S,YGWA-1D,...	Yes	4.1,4.1,4.1,4,4.2,4.2,4.2,4.9,3.7,3.8,3.8,4.8,5.2	NP	98	1.748	1.054	normal	ShapiroFrancia

## Appendix III Tukey's Outlier Analysis - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/11/2020, 4:19 PM

Constituent	Well	Outlier	Value(s)	Method	N	Mean	Std. Dev.	Distribution	Normality Test
Boron (mg/L)	YGWA-14S, YGWA-1D,...	No	n/a	NP	98	0.02735	0.01509	normal	ShapiroFrancia
Calcium (mg/L)	YGWA-14S, YGWA-1D,...	No	n/a	NP	98	13.21	11.18	normal	ShapiroFrancia
<b>Chloride (mg/L)</b>	<b>YGWA-14S, YGWA-1D,...</b>	<b>Yes</b>	<b>4.1,4.1,4.1,4.2,4.2,4.2,4.9,3.7,3.8,3.8,4.8,5.2</b>	<b>NP</b>	<b>98</b>	<b>1.748</b>	<b>1.054</b>	<b>normal</b>	<b>ShapiroFrancia</b>
Fluoride (mg/L)	YGWA-14S, YGWA-1D,...	No	n/a	NP	119	0.2586	0.1406	normal	ChiSquared
pH (S.U.)	YGWA-14S, YGWA-1D,...	No	n/a	NP	119	6.687	0.8682	normal	ChiSquared
Sulfate (mg/L)	YGWA-14S, YGWA-1D,...	No	n/a	NP	98	6.415	3.211	normal	ShapiroFrancia
Total Dissolved Solids (mg/L)	YGWA-14S, YGWA-1D,...	No	n/a	NP	98	100.5	50.19	normal	ShapiroFrancia

## Appendix IV Tukey's Outlier Analysis - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	YGWA-1D (bg)	Yes 0.005,0.005	9/13/2016,11/1/2016	NP	16	0.002011	0.001242	normal	ShapiroWilk
Barium (mg/L)	YGWA-30I (bg)	Yes 0.005	3/27/2018	NP	16	0.006975	0.0006245	normal	ShapiroWilk
Barium (mg/L)	YGWC-28I	Yes 0.1	6/9/2016	NP	16	0.08876	0.003645	normal	ShapiroWilk
Beryllium (mg/L)	YGWA-14S (bg)	Yes 0.003,0.003	6/2/2016,3/27/2018	NP	14	0.0005936	0.00102	normal	ShapiroWilk
Beryllium (mg/L)	YGWC-26S	Yes 0.003,0.003	6/8/2016,3/30/2018	NP	14	0.000565	0.001032	normal	ShapiroWilk
Cadmium (mg/L)	YGWC-28I	Yes 0.0025,0.0025	3/30/2018,9/26/2019	NP	14	0.0005129	0.0008531	normal	ShapiroWilk
Cadmium (mg/L)	YGWC-29I	Yes 0.001,0.001	6/9/2016,3/29/2018	NP	14	0.0003014	0.0003003	normal	ShapiroWilk
Cobalt (mg/L)	YGWC-27S	Yes 0.005	3/29/2018	NP	16	0.002544	0.0006723	normal	ShapiroWilk
Cobalt (mg/L)	YGWC-28S	Yes 0.005	3/30/2018	NP	16	0.001263	0.001007	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	Yes 6.68	6/8/2016	NP	16	1.223	1.549	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-26S	Yes 0.03,0.44,0.16,0.044	9/20/2016,11/7/2016,5/3/2017,6/13/2018	NP	17	0.2685	0.1021	normal	ShapiroWilk
Lithium (mg/L)	YGWA-1I (bg)	Yes 0.03,0.03,0.03	6/1/2016,9/13/2016,11/4/2016	NP	16	0.007525	0.01115	normal	ShapiroWilk
Lithium (mg/L)	YGWA-2I (bg)	Yes 0.03,0.03	11/4/2016,10/1/2018	NP	16	0.005694	0.00953	normal	ShapiroWilk
Selenium (mg/L)	YGWC-26I	Yes 0.01,0.01	5/8/2017,3/30/2018	NP	14	0.003071	0.002941	normal	ShapiroWilk

## Appendix IV Tukey's Outlier Analysis - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

Constituent	Well	Outlier Value(s)	Date(s)	Method	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	12	0.002792	0.0007217	unknown	ShapiroWilk
Antimony (mg/L)	YGWA-1D (bg)	No n/a	n/a	NP	12	0.001932	0.001151	normal	ShapiroWilk
Antimony (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	12	0.002675	0.0008081	unknown	ShapiroWilk
Antimony (mg/L)	YGWA-2I (bg)	No n/a	n/a	NP	12	0.002072	0.001193	normal	ShapiroWilk
Antimony (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Antimony (mg/L)	YGWA-3D (bg)	No n/a	n/a	NP	12	0.002512	0.0008862	normal	ShapiroWilk
Antimony (mg/L)	YGWA-3I (bg)	n/a n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-26I	n/a n/a	n/a	NP	12	0.002593	0.0009518	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-26S	n/a n/a	n/a	NP	12	0.002775	0.0005259	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-27I	n/a n/a	n/a	NP	12	0.002778	0.0007708	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-27S	n/a n/a	n/a	NP	12	0.002775	0.0007794	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-28I	n/a n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-28S	n/a n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-29I	n/a n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
<b>Arsenic (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>Yes 0.005,0.005</b>	<b>9/13/2016,11/1/2016</b>	<b>NP</b>	<b>16</b>	<b>0.002011</b>	<b>0.001242</b>	<b>normal</b>	<b>ShapiroWilk</b>
Arsenic (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	16	0.004719	0.001125	unknown	ShapiroWilk
Arsenic (mg/L)	YGWA-2I (bg)	No n/a	n/a	NP	16	0.001963	0.001503	normal	ShapiroWilk
Arsenic (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	16	0.004887	0.00045	unknown	ShapiroWilk
Arsenic (mg/L)	YGWA-3D (bg)	n/a n/a	n/a	NP	16	0.004656	0.001097	unknown	ShapiroWilk
Arsenic (mg/L)	YGWA-3I (bg)	n/a n/a	n/a	NP	16	0.004412	0.001453	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-26I	n/a n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-26S	n/a n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-27I	No n/a	n/a	NP	16	0.00284	0.002236	normal	ShapiroWilk
Arsenic (mg/L)	YGWC-27S	n/a n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-28I	n/a n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-28S	No n/a	n/a	NP	16	0.002844	0.002228	normal	ShapiroWilk
Arsenic (mg/L)	YGWC-29I	n/a n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Barium (mg/L)	YGWA-14S (bg)	No n/a	n/a	NP	16	0.007575	0.001019	normal	ShapiroWilk
Barium (mg/L)	YGWA-1D (bg)	No n/a	n/a	NP	16	0.006844	0.0009647	normal	ShapiroWilk
Barium (mg/L)	YGWA-1I (bg)	No n/a	n/a	NP	16	0.008769	0.001662	normal	ShapiroWilk
Barium (mg/L)	YGWA-2I (bg)	No n/a	n/a	NP	16	0.004119	0.0008296	normal	ShapiroWilk
<b>Barium (mg/L)</b>	<b>YGWA-30I (bg)</b>	<b>Yes 0.005</b>	<b>3/27/2018</b>	<b>NP</b>	<b>16</b>	<b>0.006975</b>	<b>0.0006245</b>	<b>normal</b>	<b>ShapiroWilk</b>
Barium (mg/L)	YGWA-3D (bg)	No n/a	n/a	NP	16	0.007312	0.00137	normal	ShapiroWilk
Barium (mg/L)	YGWA-3I (bg)	No n/a	n/a	NP	16	0.003531	0.0006916	normal	ShapiroWilk
Barium (mg/L)	YGWC-26I	No n/a	n/a	NP	16	0.06526	0.002713	normal	ShapiroWilk
Barium (mg/L)	YGWC-26S	No n/a	n/a	NP	16	0.02756	0.0017	normal	ShapiroWilk
Barium (mg/L)	YGWC-27I	No n/a	n/a	NP	16	0.06765	0.006649	normal	ShapiroWilk
Barium (mg/L)	YGWC-27S	No n/a	n/a	NP	16	0.1018	0.007225	normal	ShapiroWilk
<b>Barium (mg/L)</b>	<b>YGWC-28I</b>	<b>Yes 0.1</b>	<b>6/9/2016</b>	<b>NP</b>	<b>16</b>	<b>0.08876</b>	<b>0.003645</b>	<b>normal</b>	<b>ShapiroWilk</b>
Barium (mg/L)	YGWC-28S	No n/a	n/a	NP	16	0.2102	0.01155	normal	ShapiroWilk
Barium (mg/L)	YGWC-29I	No n/a	n/a	NP	16	0.06773	0.008408	normal	ShapiroWilk
Beryllium (mg/L)	YGWA-14S (bg)	Yes 0.003,0.003	6/2/2016,3/27/2018	NP	14	0.0005936	0.00102	normal	ShapiroWilk
Beryllium (mg/L)	YGWA-1D (bg)	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-2I (bg)	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	14	0.002791	0.0007825	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-3D (bg)	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-3I (bg)	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWC-26I	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
<b>Beryllium (mg/L)</b>	<b>YGWC-26S</b>	<b>Yes 0.003,0.003</b>	<b>6/8/2016,3/30/2018</b>	<b>NP</b>	<b>14</b>	<b>0.000565</b>	<b>0.001032</b>	<b>normal</b>	<b>ShapiroWilk</b>
Beryllium (mg/L)	YGWC-27I	No n/a	n/a	NP	14	0.0007907	0.001198	normal	ShapiroWilk
Beryllium (mg/L)	YGWC-27S	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWC-28I	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWC-28S	n/a n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk

## Appendix IV Tukey's Outlier Analysis - All Results

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

Constituent	Well	Outlier Value(s)		Date(s)	Method	N	Mean	Std. Dev.	Distribution	Normality Test
Beryllium (mg/L)	YGWC-29I	n/a n/a		n/a	NP	14	0.003	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-14S (bg)	n/a n/a		n/a	NP	14	0.002326	0.0006494	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-1D (bg)	n/a n/a		n/a	NP	14	0.002336	0.0006147	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-1I (bg)	n/a n/a		n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-2I (bg)	n/a n/a		n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-30I (bg)	n/a n/a		n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-3D (bg)	n/a n/a		n/a	NP	14	0.002329	0.0006414	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-3I (bg)	n/a n/a		n/a	NP	14	0.002327	0.0006468	unknown	ShapiroWilk
Cadmium (mg/L)	YGWC-26I	n/a n/a		n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWC-26S	n/a n/a		n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWC-27I	n/a n/a		n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWC-27S	n/a n/a		n/a	NP	14	0.0025	0	unknown	ShapiroWilk
<b>Cadmium (mg/L)</b>	<b>YGWC-28I</b>	<b>Yes 0.0025,0.0025</b>		<b>3/30/2018,9/26/2019</b>	<b>NP</b>	<b>14</b>	<b>0.0005129</b>	<b>0.0008531</b>	<b>normal</b>	<b>ShapiroWilk</b>
Cadmium (mg/L)	YGWC-28S	n/a n/a		n/a	NP	14	0.0025	0	unknown	ShapiroWilk
<b>Cadmium (mg/L)</b>	<b>YGWC-29I</b>	<b>Yes 0.001,0.001</b>		<b>6/9/2016,3/29/2018</b>	<b>NP</b>	<b>14</b>	<b>0.0003014</b>	<b>0.0003003</b>	<b>normal</b>	<b>ShapiroWilk</b>
Chromium (mg/L)	YGWA-14S (bg)	n/a n/a		n/a	NP	14	0.01	0	unknown	ShapiroWilk
Chromium (mg/L)	YGWA-1D (bg)	No n/a		n/a	NP	14	0.006884	0.004394	normal	ShapiroWilk
Chromium (mg/L)	YGWA-1I (bg)	No n/a		n/a	NP	14	0.007553	0.004057	normal	ShapiroWilk
Chromium (mg/L)	YGWA-2I (bg)	No n/a		n/a	NP	14	0.007956	0.004062	normal	ShapiroWilk
Chromium (mg/L)	YGWA-30I (bg)	n/a n/a		n/a	NP	14	0.0094	0.002245	unknown	ShapiroWilk
Chromium (mg/L)	YGWA-3D (bg)	No n/a		n/a	NP	14	0.008093	0.003794	normal	ShapiroWilk
Chromium (mg/L)	YGWA-3I (bg)	n/a n/a		n/a	NP	14	0.008736	0.003227	unknown	ShapiroWilk
Chromium (mg/L)	YGWC-26I	No n/a		n/a	NP	14	0.006294	0.004571	normal	ShapiroWilk
Chromium (mg/L)	YGWC-26S	No n/a		n/a	NP	14	0.003943	0.003491	normal	ShapiroWilk
Chromium (mg/L)	YGWC-27I	n/a n/a		n/a	NP	14	0.01	0	unknown	ShapiroWilk
Chromium (mg/L)	YGWC-27S	n/a n/a		n/a	NP	14	0.009679	0.002959	unknown	ShapiroWilk
Chromium (mg/L)	YGWC-28I	No n/a		n/a	NP	14	0.007958	0.004058	normal	ShapiroWilk
Chromium (mg/L)	YGWC-28S	n/a n/a		n/a	NP	14	0.008642	0.003452	unknown	ShapiroWilk
Chromium (mg/L)	YGWC-29I	n/a n/a		n/a	NP	14	0.009321	0.002539	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-14S (bg)	n/a n/a		n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-1D (bg)	n/a n/a		n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-1I (bg)	No n/a		n/a	NP	16	0.001871	0.001406	normal	ShapiroWilk
Cobalt (mg/L)	YGWA-2I (bg)	n/a n/a		n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-30I (bg)	No n/a		n/a	NP	16	0.02335	0.005626	normal	ShapiroWilk
Cobalt (mg/L)	YGWA-3D (bg)	n/a n/a		n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-3I (bg)	n/a n/a		n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWC-26I	n/a n/a		n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWC-26S	No n/a		n/a	NP	16	0.0025	0.0008446	normal	ShapiroWilk
Cobalt (mg/L)	YGWC-27I	No n/a		n/a	NP	16	0.02107	0.02867	normal	ShapiroWilk
<b>Cobalt (mg/L)</b>	<b>YGWC-27S</b>	<b>Yes 0.005</b>		<b>3/29/2018</b>	<b>NP</b>	<b>16</b>	<b>0.002544</b>	<b>0.0006723</b>	<b>normal</b>	<b>ShapiroWilk</b>
Cobalt (mg/L)	YGWC-28I	n/a n/a		n/a	NP	16	0.004714	0.001145	unknown	ShapiroWilk
<b>Cobalt (mg/L)</b>	<b>YGWC-28S</b>	<b>Yes 0.005</b>		<b>3/30/2018</b>	<b>NP</b>	<b>16</b>	<b>0.001263</b>	<b>0.001007</b>	<b>normal</b>	<b>ShapiroWilk</b>
Cobalt (mg/L)	YGWC-29I	No n/a		n/a	NP	16	0.003882	0.002	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-14S (bg)	No n/a		n/a	NP	16	0.5584	0.4684	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-1D (bg)	No n/a		n/a	NP	16	0.8898	0.3394	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-1I (bg)	No n/a		n/a	NP	16	0.7925	0.7051	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-2I (bg)	No n/a		n/a	NP	16	0.5056	0.2716	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-30I (bg)	No n/a		n/a	NP	16	0.7335	0.6871	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-3D (bg)	No n/a		n/a	NP	16	3.386	0.6987	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-3I (bg)	No n/a		n/a	NP	16	1.509	0.8338	normal	ShapiroWilk
<b>Combined Radium 226 + 228 (pCi/L)</b>	<b>YGWC-26I</b>	<b>Yes 6.68</b>		<b>6/8/2016</b>	<b>NP</b>	<b>16</b>	<b>1.223</b>	<b>1.549</b>	<b>normal</b>	<b>ShapiroWilk</b>
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	No n/a		n/a	NP	16	0.7387	0.2913	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	No n/a		n/a	NP	16	3.596	1.038	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	No n/a		n/a	NP	16	0.8785	0.3209	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	No n/a		n/a	NP	16	0.6106	0.348	normal	ShapiroWilk

## Appendix IV Tukey's Outlier Analysis - All Results

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

Constituent	Well	Outlier Value(s)	Date(s)	Method	N	Mean	Std. Dev.	Distribution	Normality Test
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	No n/a	n/a	NP	16	0.6791	0.365	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	No n/a	n/a	NP	16	0.9488	0.384	normal	ShapiroWilk
Fluoride (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	17	0.2835	0.06791	unknown	ShapiroWilk
Fluoride (mg/L)	YGWA-1D (bg)	No n/a	n/a	NP	17	0.1489	0.117	normal	ShapiroWilk
Fluoride (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	17	0.2688	0.08845	unknown	ShapiroWilk
Fluoride (mg/L)	YGWA-2I (bg)	No n/a	n/a	NP	17	0.1541	0.1002	normal	ShapiroWilk
Fluoride (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	17	0.2859	0.05821	unknown	ShapiroWilk
Fluoride (mg/L)	YGWA-3D (bg)	No n/a	n/a	NP	17	0.5029	0.06789	normal	ShapiroWilk
Fluoride (mg/L)	YGWA-3I (bg)	No n/a	n/a	NP	17	0.1761	0.08801	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-26I	No n/a	n/a	NP	17	0.1822	0.1152	normal	ShapiroWilk
<b>Fluoride (mg/L)</b>	<b>YGWC-26S</b>	<b>Yes 0.03,0.44,0.16,0.044</b>	<b>9/20/2016,11/7/2016,5/3/2017,6/13/2018</b>	<b>NP</b>	<b>17</b>	<b>0.2685</b>	<b>0.1021</b>	<b>normal</b>	<b>ShapiroWilk</b>
Fluoride (mg/L)	YGWC-27I	No n/a	n/a	NP	17	0.2394	0.09945	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-27S	No n/a	n/a	NP	17	0.2113	0.1111	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-28I	No n/a	n/a	NP	17	0.1956	0.1074	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-28S	No n/a	n/a	NP	17	0.2465	0.09239	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-29I	No n/a	n/a	NP	17	0.1693	0.1149	normal	ShapiroWilk
Lead (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	12	0.004592	0.001415	unknown	ShapiroWilk
Lead (mg/L)	YGWA-1D (bg)	No n/a	n/a	NP	12	0.002994	0.002482	normal	ShapiroWilk
Lead (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWA-2I (bg)	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWA-3D (bg)	No n/a	n/a	NP	12	0.003019	0.00245	normal	ShapiroWilk
Lead (mg/L)	YGWA-3I (bg)	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWC-26I	n/a n/a	n/a	NP	12	0.004588	0.001426	unknown	ShapiroWilk
Lead (mg/L)	YGWC-26S	n/a n/a	n/a	NP	12	0.004182	0.001911	unknown	ShapiroWilk
Lead (mg/L)	YGWC-27I	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWC-27S	No n/a	n/a	NP	12	0.003779	0.002209	normal	ShapiroWilk
Lead (mg/L)	YGWC-28I	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWC-28S	No n/a	n/a	NP	12	0.003767	0.002231	normal	ShapiroWilk
Lead (mg/L)	YGWC-29I	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	16	0.03	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWA-1D (bg)	No n/a	n/a	NP	16	0.01147	0.003797	normal	ShapiroWilk
<b>Lithium (mg/L)</b>	<b>YGWA-1I (bg)</b>	<b>Yes 0.03,0.03,0.03</b>	<b>6/1/2016,9/13/2016,11/4/2016</b>	<b>NP</b>	<b>16</b>	<b>0.007525</b>	<b>0.01115</b>	<b>normal</b>	<b>ShapiroWilk</b>
<b>Lithium (mg/L)</b>	<b>YGWA-2I (bg)</b>	<b>Yes 0.03,0.03</b>	<b>11/4/2016,10/1/2018</b>	<b>NP</b>	<b>16</b>	<b>0.005694</b>	<b>0.00953</b>	<b>normal</b>	<b>ShapiroWilk</b>
Lithium (mg/L)	YGWA-30I (bg)	No n/a	n/a	NP	16	0.01737	0.01479	normal	ShapiroWilk
Lithium (mg/L)	YGWA-3D (bg)	No n/a	n/a	NP	16	0.01969	0.001571	normal	ShapiroWilk
Lithium (mg/L)	YGWA-3I (bg)	No n/a	n/a	NP	16	0.01152	0.001838	normal	ShapiroWilk
Lithium (mg/L)	YGWC-26I	No n/a	n/a	NP	16	0.006738	0.000438	normal	ShapiroWilk
Lithium (mg/L)	YGWC-26S	n/a n/a	n/a	NP	16	0.03	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWC-27I	No n/a	n/a	NP	16	0.009631	0.001871	normal	ShapiroWilk
Lithium (mg/L)	YGWC-27S	n/a n/a	n/a	NP	16	0.03	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWC-28I	No n/a	n/a	NP	16	0.006881	0.0003449	normal	ShapiroWilk
Lithium (mg/L)	YGWC-28S	n/a n/a	n/a	NP	16	0.03	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWC-29I	No n/a	n/a	NP	16	0.006056	0.0008839	normal	ShapiroWilk
Mercury (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	13	0.0004662	0.0001218	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-1D (bg)	n/a n/a	n/a	NP	13	0.0004301	0.0001707	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	13	0.0004657	0.0001237	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-2I (bg)	n/a n/a	n/a	NP	13	0.0005	0	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	13	0.0004346	0.0001596	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-3D (bg)	n/a n/a	n/a	NP	13	0.0004352	0.0001583	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-3I (bg)	n/a n/a	n/a	NP	13	0.0004342	0.0001606	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-26I	n/a n/a	n/a	NP	13	0.0004309	0.0001686	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-26S	n/a n/a	n/a	NP	13	0.0004319	0.0001662	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-27I	n/a n/a	n/a	NP	13	0.0004307	0.0001692	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-27S	n/a n/a	n/a	NP	13	0.00043	0.0001709	unknown	ShapiroWilk

## Appendix IV Tukey's Outlier Analysis - All Results

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

Constituent	Well	Outlier Value(s)		Date(s)	Method	N	Mean	Std. Dev.	Distribution	Normality Test
Mercury (mg/L)	YGWC-28I	n/a n/a		n/a	NP	13	0.0004652	0.0001254	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-28S	n/a n/a		n/a	NP	13	0.0004655	0.0001243	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-29I	n/a n/a		n/a	NP	13	0.0004297	0.0001716	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWA-14S (bg)	n/a n/a		n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWA-1D (bg)	No	n/a	n/a	NP	16	0.009763	0.00193	normal	ShapiroWilk
Molybdenum (mg/L)	YGWA-1I (bg)	No	n/a	n/a	NP	16	0.008581	0.001688	normal	ShapiroWilk
Molybdenum (mg/L)	YGWA-2I (bg)	No	n/a	n/a	NP	16	0.004694	0.001233	normal	ShapiroWilk
Molybdenum (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWA-3D (bg)	No	n/a	n/a	NP	16	0.01103	0.001161	normal	ShapiroWilk
Molybdenum (mg/L)	YGWA-3I (bg)	No	n/a	n/a	NP	16	0.004338	0.002047	normal	ShapiroWilk
Molybdenum (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWC-26S	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWC-27I	No	n/a	n/a	NP	16	0.006756	0.004328	normal	ShapiroWilk
Molybdenum (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWC-28I	No	n/a	n/a	NP	16	0.006206	0.004443	normal	ShapiroWilk
Molybdenum (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	16	0.008831	0.003194	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-14S (bg)	No	n/a	n/a	NP	14	0.006943	0.00426	normal	ShapiroWilk
Selenium (mg/L)	YGWA-1D (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-1I (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-2I (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-3D (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	<b>YGWC-26I</b>	<b>Yes</b>	<b>0.01,0.01</b>	<b>5/8/2017,3/30/2018</b>	NP	14	<b>0.003071</b>	<b>0.002941</b>	normal	ShapiroWilk
Selenium (mg/L)	YGWC-26S	No	n/a	n/a	NP	14	0.00745	0.004192	normal	ShapiroWilk
Selenium (mg/L)	YGWC-27I	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	14	0.009371	0.002352	unknown	ShapiroWilk
Selenium (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	14	0.009357	0.002405	unknown	ShapiroWilk
Selenium (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-14S (bg)	n/a	n/a	n/a	NP	12	0.0009241	0.000263	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-1D (bg)	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-1I (bg)	n/a	n/a	n/a	NP	12	0.0009213	0.0002728	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-2I (bg)	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-3D (bg)	n/a	n/a	n/a	NP	12	0.000925	0.0002598	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-26S	n/a	n/a	n/a	NP	12	0.0008427	0.0003675	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-27I	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-27S	No	n/a	n/a	NP	12	0.0005525	0.0004674	normal	ShapiroWilk
Thallium (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk

## Upgradient Wells Appendix III Trend Tests - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	YGWA-14S (bg)	-0.05271	-60	-44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-1D (bg)	1.11	48	44	Yes	14	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-3D (bg)	-0.02531	-61	-58	Yes	17	5.882	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-1D (bg)	-0.1114	-61	-58	Yes	17	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-1D (bg)	1.261	51	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-3D (bg)	0.7245	46	44	Yes	14	0	n/a	n/a	0.02	NP

## Upgradient Wells Appendix III Trend Tests - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:38 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	YGWA-14S (bg)	-0.002489	-37	-44	No	14	14.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-1D (bg)	-0.001025	-26	-44	No	14	14.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-1I (bg)	0	-33	-44	No	14	64.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-2I (bg)	0	-26	-44	No	14	71.43	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-30I (bg)	0	-19	-44	No	14	85.71	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-3D (bg)	0	-13	-44	No	14	57.14	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-3I (bg)	0	-13	-44	No	14	92.86	n/a	n/a	0.02	NP
<b>Calcium (mg/L)</b>	<b>YGWA-14S (bg)</b>	<b>-0.05271</b>	<b>-60</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>1.11</b>	<b>48</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Calcium (mg/L)	YGWA-1I (bg)	-0.1025	-37	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-2I (bg)	0.9579	31	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-30I (bg)	-0.0134	-7	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-3D (bg)	1.219	40	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-3I (bg)	0.4381	18	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-14S (bg)	0	6	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-1D (bg)	0	-11	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-1I (bg)	0	-5	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-2I (bg)	-0.03701	-16	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-30I (bg)	0	4	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-3D (bg)	-0.07067	-33	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-3I (bg)	-0.04953	-37	-44	No	14	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-14S (bg)	0	14	58	No	17	94.12	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-1D (bg)	-0.004818	-21	-58	No	17	35.29	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-1I (bg)	0	17	58	No	17	88.24	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-2I (bg)	0	6	58	No	17	23.53	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-30I (bg)	0	14	58	No	17	94.12	n/a	n/a	0.02	NP
<b>Fluoride (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>-0.02531</b>	<b>-61</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>5.882</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Fluoride (mg/L)	YGWA-3I (bg)	-0.01022	-25	-58	No	17	29.41	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-14S (bg)	-0.01066	-20	-58	No	17	0	n/a	n/a	0.02	NP
<b>pH (S.U.)</b>	<b>YGWA-1D (bg)</b>	<b>-0.1114</b>	<b>-61</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
pH (S.U.)	YGWA-1I (bg)	-0.04218	-52	-58	No	17	0	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-2I (bg)	-0.03531	-21	-58	No	17	0	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-30I (bg)	0.005933	5	58	No	17	0	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-3D (bg)	-0.0353	-29	-58	No	17	0	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-3I (bg)	-0.07822	-46	-58	No	17	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-14S (bg)	0.3425	40	44	No	14	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>1.261</b>	<b>51</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-1I (bg)	-0.1237	-7	-44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-2I (bg)	0	0	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-30I (bg)	-0.05321	-7	-44	No	14	14.29	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>0.7245</b>	<b>46</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-3I (bg)	0.6413	31	44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-14S (bg)	1.727	9	44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-1D (bg)	5.856	18	44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-1I (bg)	-0.6315	-3	-44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-2I (bg)	-3.471	-25	-44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-30I (bg)	4.021	23	44	No	14	14.29	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-3D (bg)	4.214	14	44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-3I (bg)	1.372	6	44	No	14	0	n/a	n/a	0.02	NP

## Appendix IV Trend Tests - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:49 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Barium (mg/L)	YGWA-3D (bg)	-0.0008036	-74	-53	Yes	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-26S	-0.00108	-80	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-27I	-0.003166	-59	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-27S	-0.003589	-78	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-28S	-0.005296	-59	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-29I	-0.00565	-93	-53	Yes	16	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-30I (bg)	-0.003763	-111	-53	Yes	16	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-27I	0.003813	63	53	Yes	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.206	64	53	Yes	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-3D (bg)	-0.02531	-61	-58	Yes	17	5.882	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-30I (bg)	-0.007672	-54	-53	Yes	16	56.25	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-29I	-0.0005137	-61	-53	Yes	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-1D (bg)	-0.0008772	-70	-53	Yes	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-1I (bg)	-0.001096	-76	-53	Yes	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-3D (bg)	0.0008155	70	53	Yes	16	0	n/a	n/a	0.02	NP

## Appendix IV Trend Tests - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:49 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Antimony (mg/L)	YGWA-14S (bg)	0	9	35	No	12	91.67	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-1D (bg)	0	7	35	No	12	50	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-1I (bg)	0	-13	-35	No	12	83.33	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-2I (bg)	-0.00002578	-21	-35	No	12	58.33	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-30I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-3D (bg)	0	2	35	No	12	66.67	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-3I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-26I	0	-19	-35	No	12	83.33	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-26S	0	-19	-35	No	12	83.33	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-27I	0	-11	-35	No	12	91.67	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-27S	0	-11	-35	No	12	91.67	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-28I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-28S	0	0	35	No	12	100	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-29I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-14S (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-1D (bg)	-0.0002127	-51	-53	No	16	12.5	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-1I (bg)	0	-13	-53	No	16	93.75	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-2I (bg)	-0.0003521	-40	-53	No	16	12.5	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-30I (bg)	0	-13	-53	No	16	93.75	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-3D (bg)	0	-11	-53	No	16	87.5	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-3I (bg)	0	-4	-53	No	16	81.25	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-26I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-26S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-27I	-0.00007048	-39	-53	No	16	50	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-27S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-28I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-28S	-0.00009908	-51	-53	No	16	50	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-29I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-14S (bg)	-0.0004179	-47	-53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-1D (bg)	0.0001166	12	53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-1I (bg)	-0.0003284	-20	-53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-2I (bg)	-0.0003414	-44	-53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-30I (bg)	0.0000627	18	53	No	16	6.25	n/a	n/a	0.02	NP
<b>Barium (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>-0.0008036</b>	<b>-74</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>6.25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Barium (mg/L)	YGWA-3I (bg)	0	-4	-53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-26I	-0.001377	-50	-53	No	16	0	n/a	n/a	0.02	NP
<b>Barium (mg/L)</b>	<b>YGWC-26S</b>	<b>-0.00108</b>	<b>-80</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Barium (mg/L)	YGWC-27I	-0.003166	-59	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-27S	-0.003589	-78	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-28I	0	0	53	No	16	0	n/a	n/a	0.02	NP
<b>Barium (mg/L)</b>	<b>YGWC-28S</b>	<b>-0.005296</b>	<b>-59</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Barium (mg/L)	YGWC-29I	-0.00565	-93	-53	Yes	16	0	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-14S (bg)	0	-21	44	No	14	14.29	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-1D (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-1I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-2I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-30I (bg)	0	-5	-44	No	14	92.86	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-3D (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-3I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-26I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-26S	-0.00001414	-24	-44	No	14	14.29	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-27I	0.000003256	15	44	No	14	21.43	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-27S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-28I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-28S	0	0	44	No	14	100	n/a	n/a	0.02	NP

## Appendix IV Trend Tests - All Results

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:49 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Beryllium (mg/L)	YGWC-29I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-14S (bg)	0	3	44	No	14	92.86	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-1D (bg)	0	5	44	No	14	92.86	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-11 (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-2I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-30I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-3D (bg)	0	5	44	No	14	92.86	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-3I (bg)	0	5	44	No	14	92.86	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-26I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-26S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-27I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-27S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-28I	0.00001653	24	44	No	14	14.29	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-28S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-29I	0.000006972	16	44	No	14	14.29	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-14S (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-1D (bg)	0	-23	-44	No	14	64.29	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-1I (bg)	0	-24	-44	No	14	71.43	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-2I (bg)	0	-6	-44	No	14	78.57	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-30I (bg)	0	1	44	No	14	92.86	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-3D (bg)	0	8	44	No	14	78.57	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-3I (bg)	0	-5	-44	No	14	85.71	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-26I	-0.00005034	-29	-44	No	14	57.14	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-26S	-0.0000347	-9	-44	No	14	21.43	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-27I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-27S	0	-7	-44	No	14	85.71	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-28I	0	-10	-44	No	14	78.57	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-28S	0	-3	-44	No	14	85.71	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-29I	0	11	44	No	14	92.86	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-14S (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-1D (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-1I (bg)	-0.000004271	-1	-53	No	16	12.5	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-2I (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
<b>Cobalt (mg/L)</b>	<b>YGWA-30I (bg)</b>	<b>-0.003763</b>	<b>-111</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Cobalt (mg/L)	YGWA-3D (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-3I (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-26I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-26S	-0.0002527	-44	-53	No	16	6.25	n/a	n/a	0.02	NP
<b>Cobalt (mg/L)</b>	<b>YGWC-27I</b>	<b>0.003813</b>	<b>63</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Cobalt (mg/L)	YGWC-27S	-0.00006569	-38	-53	No	16	6.25	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-28I	0	15	53	No	16	93.75	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-28S	0.00003557	17	53	No	16	6.25	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-29I	0	40	53	No	16	75	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-14S (bg)	-0.05778	-22	-53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-1D (bg)	0.1682	51	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-1I (bg)	0.08289	14	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-2I (bg)	0.08716	28	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-30I (bg)	0.09857	31	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-3D (bg)	0.2698	38	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-3I (bg)	0.3365	43	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	0.3153	45	48	No	15	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.06116	34	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	0.4428	40	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	0.1318	40	53	No	16	0	n/a	n/a	0.02	NP
<b>Combined Radium 226 + 228 (pCi/L)</b>	<b>YGWC-28I</b>	<b>0.206</b>	<b>64</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>

## Appendix IV Trend Tests - All Results

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:49 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.1341	34	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	-0.01224	-2	-53	No	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-14S (bg)	0	14	58	No	17	94.12	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-1D (bg)	-0.004818	-21	-58	No	17	35.29	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-1I (bg)	0	17	58	No	17	88.24	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-2I (bg)	0	6	58	No	17	23.53	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-30I (bg)	0	14	58	No	17	94.12	n/a	n/a	0.02	NP
<b>Fluoride (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>-0.02531</b>	<b>-61</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>5.882</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Fluoride (mg/L)	YGWA-3I (bg)	-0.01022	-25	-58	No	17	29.41	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-26I	0	-3	-58	No	17	47.06	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-26S	0	13	58	No	17	64.71	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-27I	0	11	58	No	17	70.59	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-27S	-0.03338	-38	-58	No	17	17.65	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-28I	-0.0009203	-14	-58	No	17	29.41	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-28S	-0.02391	-30	-58	No	17	11.76	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-29I	-0.005777	-36	-58	No	17	41.18	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-14S (bg)	0	1	35	No	12	91.67	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-1D (bg)	0	-4	-35	No	12	58.33	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-1I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-2I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-30I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-3D (bg)	0	14	35	No	12	58.33	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-3I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-26I	0	-11	-35	No	12	91.67	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-26S	0	-13	-35	No	12	83.33	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-27I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-27S	0	-14	-35	No	12	75	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-28I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-28S	0	-22	-35	No	12	75	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-29I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-14S (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-1D (bg)	-0.001625	-47	-53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-1I (bg)	-0.00007918	-41	-53	No	16	18.75	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-2I (bg)	-0.0005677	-53	-53	No	16	12.5	n/a	n/a	0.02	NP
<b>Lithium (mg/L)</b>	<b>YGWA-30I (bg)</b>	<b>-0.007672</b>	<b>-54</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>56.25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Lithium (mg/L)	YGWA-3D (bg)	0.0005207	37	53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-3I (bg)	0.0005239	27	53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-26I	0.0001336	40	53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-26S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-27I	-0.00005456	-4	-53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-27S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-28I	-0.00009645	-34	-53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-28S	0	0	53	No	16	100	n/a	n/a	0.02	NP
<b>Lithium (mg/L)</b>	<b>YGWC-29I</b>	<b>-0.0005137</b>	<b>-61</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Mercury (mg/L)	YGWA-14S (bg)	0	-6	-39	No	13	92.31	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-1D (bg)	0	-15	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-1I (bg)	0	-6	-39	No	13	92.31	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-2I (bg)	0	0	39	No	13	100	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-30I (bg)	0	-13	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-3D (bg)	0	-13	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-3I (bg)	0	-13	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-26I	0	-14	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-26S	0	-13	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-27I	0	-15	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-27S	0	-15	-39	No	13	84.62	n/a	n/a	0.02	NP

## Appendix IV Trend Tests - All Results

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:49 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Mercury (mg/L)	YGWC-28I	0	-6	-39	No	13	92.31	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-28S	0	-6	-39	No	13	92.31	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-29I	0	-15	-39	No	13	84.62	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-14S (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
<b>Molybdenum (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>-0.0008772</b>	<b>-70</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Molybdenum (mg/L)</b>	<b>YGWA-1I (bg)</b>	<b>-0.001096</b>	<b>-76</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Molybdenum (mg/L)	YGWA-2I (bg)	0.00004235	4	53	No	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-30I (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
<b>Molybdenum (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>0.0008155</b>	<b>70</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Molybdenum (mg/L)	YGWA-3I (bg)	-0.0001073	-6	-53	No	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-26I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-26S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-27I	0	-3	-53	No	16	62.5	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-27S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-28I	0	-5	-53	No	16	56.25	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-28S	0	17	53	No	16	87.5	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-29I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-14S (bg)	0	35	44	No	14	64.29	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-1D (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-1I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-2I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-30I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-3D (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-3I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-26I	0	-5	-44	No	14	14.29	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-26S	0	35	44	No	14	71.43	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-27I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-27S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-28I	0	3	44	No	14	92.86	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-28S	0	9	44	No	14	92.86	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-29I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-14S (bg)	0	-9	-35	No	12	91.67	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-1D (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-1I (bg)	0	-9	-35	No	12	91.67	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-2I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-30I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-3D (bg)	0	9	35	No	12	91.67	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-3I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-26I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-26S	0	-21	-35	No	12	83.33	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-27I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-27S	0	-5	-35	No	12	50	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-28I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-28S	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-29I	0	0	35	No	12	100	n/a	n/a	0.02	NP

### Appendix III Interwell Prediction Limits Summary Table - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:55 PM

Constituent	Well	Upper Lim.	Lower Lim	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Alpha	Method
Boron (mg/L)	YGWC-26I	0.04	n/a	3/20/2020	0.94	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-26S	0.04	n/a	3/19/2020	0.73	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-27I	0.04	n/a	3/20/2020	2.1	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-27S	0.04	n/a	3/20/2020	1.4	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-28I	0.04	n/a	3/19/2020	2.4	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-28S	0.04	n/a	3/19/2020	2.5	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-29I	0.04	n/a	3/20/2020	0.8	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	YGWC-27S	31.5	n/a	3/20/2020	42.1	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-28I	31.5	n/a	3/19/2020	37.3	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-26I	5.2	n/a	3/20/2020	17.7	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-26S	5.2	n/a	3/19/2020	15.4	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-27I	5.2	n/a	3/20/2020	13	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-27S	5.2	n/a	3/20/2020	17.7	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-28I	5.2	n/a	3/19/2020	16	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-28S	5.2	n/a	3/19/2020	18.1	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-29I	5.2	n/a	3/20/2020	11.3	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	YGWC-26I	12.46	n/a	3/20/2020	84.7	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-26S	12.46	n/a	3/19/2020	99.4	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-27S	12.46	n/a	3/20/2020	21.1	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-29I	12.46	n/a	3/20/2020	33	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	

### Appendix III Interwell Prediction Limits Summary Table - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:55 PM

Constituent	Well	Upper Lim.	Lower Lim	Date	Observ.	Sig.	Bg	NBg	Mean	Std. Dev.	%NDs	ND Adj.	Alpha	Method
Boron (mg/L)	YGWC-26I	0.04	n/a	3/20/2020	0.94	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-26S	0.04	n/a	3/19/2020	0.73	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-27I	0.04	n/a	3/20/2020	2.1	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-27S	0.04	n/a	3/20/2020	1.4	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-28I	0.04	n/a	3/19/2020	2.4	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-28S	0.04	n/a	3/19/2020	2.5	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-29I	0.04	n/a	3/20/2020	0.8	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	YGWC-26I	31.5	n/a	3/20/2020	17.1	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-26S	31.5	n/a	3/19/2020	13	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-27I	31.5	n/a	3/20/2020	30.3	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-27S	31.5	n/a	3/20/2020	42.1	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-28I	31.5	n/a	3/19/2020	37.3	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-28S	31.5	n/a	3/19/2020	30.4	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-29I	31.5	n/a	3/20/2020	12.7	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-26I	5.2	n/a	3/20/2020	17.7	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-26S	5.2	n/a	3/19/2020	15.4	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-27I	5.2	n/a	3/20/2020	13	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-27S	5.2	n/a	3/20/2020	17.7	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-28I	5.2	n/a	3/19/2020	16	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-28S	5.2	n/a	3/19/2020	18.1	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-29I	5.2	n/a	3/20/2020	11.3	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	YGWC-26I	0.68	n/a	3/20/2020	0.06	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-26S	0.68	n/a	3/19/2020	0.3ND	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-27I	0.68	n/a	3/20/2020	0.3ND	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-27S	0.68	n/a	3/20/2020	0.097	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-28I	0.68	n/a	3/19/2020	0.07	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-28S	0.68	n/a	3/19/2020	0.16	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-29I	0.68	n/a	3/20/2020	0.057	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
pH (S.U.)	YGWC-26I	7.91	5.02	3/20/2020	5.94	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-26S	7.91	5.02	3/19/2020	5.46	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-27I	7.91	5.02	3/20/2020	6.32	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-27S	7.91	5.02	3/20/2020	6.18	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-28I	7.91	5.02	3/19/2020	7.01	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-28S	7.91	5.02	3/19/2020	6.98	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-29I	7.91	5.02	3/20/2020	6.17	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	YGWC-26I	12.46	n/a	3/20/2020	84.7	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-26S	12.46	n/a	3/19/2020	99.4	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-27I	12.46	n/a	3/20/2020	5.2	No	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-27S	12.46	n/a	3/20/2020	21.1	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-28I	12.46	n/a	3/19/2020	9.1	No	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-28S	12.46	n/a	3/19/2020	1.7	No	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-29I	12.46	n/a	3/20/2020	33	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-26I	223	n/a	3/20/2020	211	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-26S	223	n/a	3/19/2020	194	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-27I	223	n/a	3/20/2020	195	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-27S	223	n/a	3/20/2020	182	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-28I	223	n/a	3/19/2020	212	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-28S	223	n/a	3/19/2020	202	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-29I	223	n/a	3/20/2020	137	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	

## Appendix III Trend Tests - PL Exceedances - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	YGWA-14S (bg)	-0.05271	-60	-44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-1D (bg)	1.11	48	44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-26S	-1.022	-55	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-27S	-0.9221	-63	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-29I	-0.605	-47	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-1D (bg)	1.261	51	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-3D (bg)	0.7245	46	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWC-27S	-2.238	-55	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWC-29I	-0.6353	-49	-44	Yes	14	0	n/a	n/a	0.02	NP

### Appendix III Trend Tests - PL Exceedances - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:59 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	YGWA-14S (bg)	-0.002489	-37	-44	No	14	14.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-1D (bg)	-0.001025	-26	-44	No	14	14.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-1I (bg)	0	-33	-44	No	14	64.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-2I (bg)	0	-26	-44	No	14	71.43	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-30I (bg)	0	-19	-44	No	14	85.71	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-3D (bg)	0	-13	-44	No	14	57.14	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-3I (bg)	0	-13	-44	No	14	92.86	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-26I	-0.01726	-15	-44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-26S	0.005659	17	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-27I	0.02751	6	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-27S	0.02086	19	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-28I	0.1086	27	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-28S	0.08094	21	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-29I	-0.01791	-35	-44	No	14	0	n/a	n/a	0.02	NP
<b>Calcium (mg/L)</b>	<b>YGWA-14S (bg)</b>	<b>-0.05271</b>	<b>-60</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>1.11</b>	<b>48</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Calcium (mg/L)	YGWA-1I (bg)	-0.1025	-37	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-2I (bg)	0.9579	31	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-30I (bg)	-0.0134	-7	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-3D (bg)	1.219	40	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-3I (bg)	0.4381	18	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWC-27S	0.4551	10	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWC-28I	-0.3982	-15	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-14S (bg)	0	6	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-1D (bg)	0	-11	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-1I (bg)	0	-5	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-2I (bg)	-0.03701	-16	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-30I (bg)	0	4	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-3D (bg)	-0.07067	-33	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-3I (bg)	-0.04953	-37	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-26I	0	-9	-44	No	14	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>YGWC-26S</b>	<b>-1.022</b>	<b>-55</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	YGWC-27I	0	13	44	No	14	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>YGWC-27S</b>	<b>-0.9221</b>	<b>-63</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	YGWC-28I	-0.215	-39	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-28S	0.02755	11	44	No	14	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>YGWC-29I</b>	<b>-0.605</b>	<b>-47</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-14S (bg)	0.3425	40	44	No	14	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>1.261</b>	<b>51</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-1I (bg)	-0.1237	-7	-44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-2I (bg)	0	0	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-30I (bg)	-0.05321	-7	-44	No	14	14.29	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>0.7245</b>	<b>46</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-3I (bg)	0.6413	31	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWC-26I	0.7464	13	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWC-26S	-0.5868	-29	-44	No	14	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWC-27S</b>	<b>-2.238</b>	<b>-55</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWC-29I	-0.6353	-49	-44	Yes	14	0	n/a	n/a	0.02	NP

## Tolerance Limit Summary Table

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 4:01 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0030	n/a	n/a	n/a	n/a	84	n/a	n/a	78.57	n/a	n/a	0.01345	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0050	n/a	n/a	n/a	n/a	112	n/a	n/a	68.75	n/a	n/a	0.003199	NP Inter(NDs)
Barium (mg/L)	n/a	0.012	n/a	n/a	n/a	n/a	112	n/a	n/a	6.25	n/a	n/a	0.003199	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0030	n/a	n/a	n/a	n/a	98	n/a	n/a	86.73	n/a	n/a	0.00656	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	98	n/a	n/a	95.92	n/a	n/a	0.00656	NP Inter(NDs)
Chromium (mg/L)	n/a	0.010	n/a	n/a	n/a	n/a	98	n/a	n/a	81.63	n/a	n/a	0.00656	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.035	n/a	n/a	n/a	n/a	112	n/a	n/a	73.21	n/a	n/a	0.003199	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	4.1	n/a	n/a	n/a	n/a	112	0.9571	0.3376	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	n/a	0.68	n/a	n/a	n/a	n/a	119	n/a	n/a	52.94	n/a	n/a	0.002234	NP Inter(NDs)
Lead (mg/L)	n/a	0.0050	n/a	n/a	n/a	n/a	84	n/a	n/a	86.9	n/a	n/a	0.01345	NP Inter(NDs)
Lithium (mg/L)	n/a	0.030	n/a	n/a	n/a	n/a	112	n/a	n/a	26.79	n/a	n/a	0.003199	NP Inter(normality)
Mercury (mg/L)	n/a	0.00050	n/a	n/a	n/a	n/a	91	n/a	n/a	89.01	n/a	n/a	0.009394	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.014	n/a	n/a	n/a	n/a	112	n/a	n/a	28.57	n/a	n/a	0.003199	NP Inter(normality)
Selenium (mg/L)	n/a	0.010	n/a	n/a	n/a	n/a	98	n/a	n/a	94.9	n/a	n/a	0.00656	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0010	n/a	n/a	n/a	n/a	84	n/a	n/a	96.43	n/a	n/a	0.01345	NP Inter(NDs)

YATES ASH POND 2 GWPS - FEDERAL				
Constituent Name	MCL	CCR Rule-Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.012	2
Beryllium, Total (mg/L)	0.004		0.003	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.035	0.035
Combined Radium, Total (pCi/L)	5		4.1	5
Fluoride, Total (mg/L)	4		0.68	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0005	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.014	0.1
Selenium, Total (mg/L)	0.05		0.01	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

\*Grey cell indicates ACL is higher than MCL or CCR Rule-specified level

\*MCL = Maximum Contaminant Level

\*CCR = Coal Combustion Residual

\*GWPS = Groundwater Protection Standard

YATES ASH POND 2 GWPS - STATE				
Constituent Name	MCL	CCR Rule-Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.012	2
Beryllium, Total (mg/L)	0.004		0.003	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.035	0.035
Combined Radium, Total (pCi/L)	5		4.1	5
Fluoride, Total (mg/L)	4		0.68	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.005
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0005	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.014	0.014
Selenium, Total (mg/L)	0.05		0.01	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

\*Grey cell indicates ACL is higher than MCL or CCR Rule-specified level

\*MCL = Maximum Contaminant Level

\*CCR = Coal Combustion Residual

\*GWPS = Groundwater Protection Standard

# Federal Confidence Intervals - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 4:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-26I	0.003	0.00059	0.006	No	12	0.002593	0.0009518	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-26S	0.003	0.0017	0.006	No	12	0.002775	0.0005259	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-27I	0.003	0.00033	0.006	No	12	0.002778	0.0007708	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-27S	0.003	0.0003	0.006	No	12	0.002775	0.0007794	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.005	0.00058	0.01	No	16	0.00284	0.002236	50	None	No	0.01	NP (normality)
Arsenic (mg/L)	YGWC-28S	0.005	0.00065	0.01	No	16	0.002844	0.002228	50	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-26I	0.06702	0.06349	2	No	16	0.06526	0.002713	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.02866	0.02645	2	No	16	0.02756	0.0017	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.0728	0.063	2	No	16	0.06765	0.006649	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-27S	0.108	0.096	2	No	16	0.1018	0.007225	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28I	0.0915	0.0862	2	No	16	0.08876	0.003645	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28S	0.2177	0.2027	2	No	16	0.2102	0.01155	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.0732	0.06226	2	No	16	0.06773	0.008408	0	None	No	0.01	Param.
Beryllium (mg/L)	YGWC-26S	0.003	0.00011	0.004	No	14	0.000565	0.001032	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-27I	0.003	0.0001	0.004	No	14	0.0007907	0.001198	21.43	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-28I	0.00055	0.00009	0.005	No	14	0.0003343	0.0004118	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-29I	0.00026	0.0001	0.005	No	14	0.0003371	0.0003901	14.29	None	No	0.01	NP (normality)
Chromium (mg/L)	YGWC-26I	0.01	0.0006	0.1	No	14	0.006294	0.004571	57.14	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-26S	0.002761	0.001323	0.1	No	14	0.003943	0.003491	21.43	Kaplan-Meier	In(x)	0.01	Param.
Chromium (mg/L)	YGWC-27S	0.015	0.0005	0.1	No	14	0.009679	0.002959	85.71	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-28I	0.01	0.0005	0.1	No	14	0.007958	0.004058	78.57	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-28S	0.01	0.0005	0.1	No	14	0.008642	0.003452	85.71	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-29I	0.01	0.0005	0.1	No	14	0.009321	0.002539	92.86	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.002891	0.001983	0.035	No	16	0.0025	0.0008446	6.25	None	In(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.0495	0.0017	0.035	No	16	0.02107	0.02867	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0022	0.035	No	16	0.002544	0.0006723	6.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No	16	0.004714	0.001145	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.00112	0.00085	0.035	No	16	0.001263	0.001007	6.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.0006	0.035	No	16	0.003882	0.002	75	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.231	0.4873	5	No	15	0.8594	0.5491	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.9282	0.5491	5	No	16	0.7387	0.2913	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.272	2.921	5	No	16	3.596	1.038	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.087	0.6697	5	No	16	0.8785	0.3209	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.948	0.245	5	No	16	0.6106	0.348	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.9165	0.4416	5	No	16	0.6791	0.365	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.199	0.6989	5	No	16	0.9488	0.384	0	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.3	0.071	4	No	17	0.1822	0.1152	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-26S	0.35	0.24	4	No	17	0.2685	0.1021	64.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-27I	0.3	0.086	4	No	17	0.2394	0.09945	70.59	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-27S	0.2457	0.1134	4	No	17	0.2113	0.1111	17.65	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.3	0.08	4	No	17	0.1956	0.1074	29.41	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-28S	0.3044	0.1886	4	No	17	0.2465	0.09239	11.76	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-29I	0.3	0.059	4	No	17	0.1693	0.1149	41.18	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-26I	0.005	0.00059	0.015	No	12	0.004588	0.001426	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-26S	0.005	0.0001	0.015	No	12	0.004182	0.001911	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-27S	0.005	0.000085	0.015	No	12	0.003779	0.002209	75	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-28S	0.005	0.00007	0.015	No	12	0.003767	0.002231	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-26I	0.007022	0.006453	0.04	No	16	0.006738	0.000438	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-27I	0.01085	0.008414	0.04	No	16	0.009631	0.001871	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-28I	0.007106	0.006657	0.04	No	16	0.006881	0.0003449	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-29I	0.006631	0.005481	0.04	No	16	0.006056	0.0008839	0	None	No	0.01	Param.
Molybdenum (mg/L)	YGWC-27I	0.01	0.0013	0.1	No	16	0.006756	0.004328	62.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.01	0.0013	0.1	No	16	0.006206	0.004443	56.25	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28S	0.01	0.0007	0.1	No	16	0.008831	0.003194	87.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-26I	0.0023	0.0017	0.05	No	14	0.003071	0.002941	14.29	None	No	0.01	NP (normality)
Selenium (mg/L)	YGWC-26S	0.01	0.0012	0.05	No	14	0.00745	0.004192	71.43	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-28I	0.01	0.0012	0.05	No	14	0.009371	0.002352	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-28S	0.01	0.001	0.05	No	14	0.009357	0.002405	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-26S	0.001	0.000057	0.002	No	12	0.0008427	0.0003675	83.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-27S	0.001	0.0001	0.002	No	12	0.0005525	0.0004674	50	None	No	0.01	NP (normality)

# State Confidence Intervals - All Results

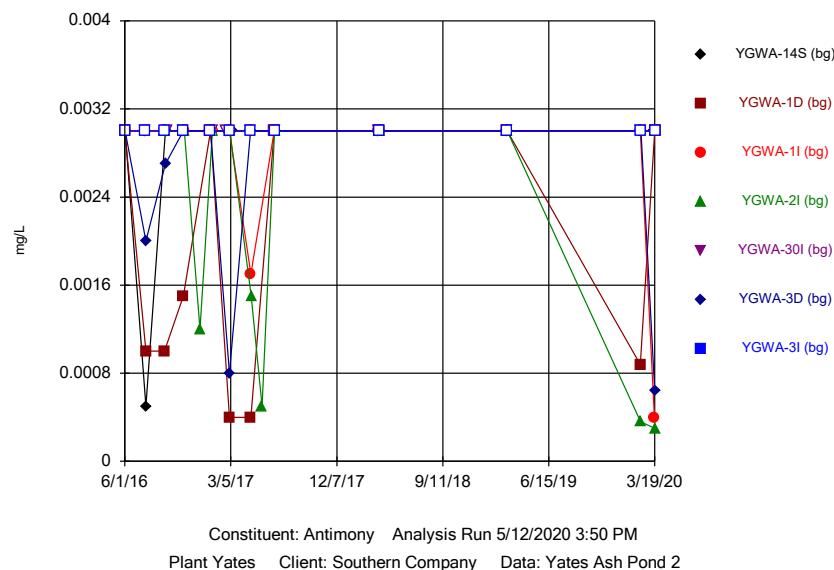
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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-26I	0.003	0.00059	0.006	No	12	0.002593	0.0009518	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-26S	0.003	0.0017	0.006	No	12	0.002775	0.0005259	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-27I	0.003	0.00033	0.006	No	12	0.002778	0.0007708	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-27S	0.003	0.0003	0.006	No	12	0.002775	0.0007794	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.005	0.00058	0.01	No	16	0.00284	0.002236	50	None	No	0.01	NP (normality)
Arsenic (mg/L)	YGWC-28S	0.005	0.00065	0.01	No	16	0.002844	0.002228	50	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-26I	0.06702	0.06349	2	No	16	0.06526	0.002713	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.02866	0.02645	2	No	16	0.02756	0.0017	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.0728	0.063	2	No	16	0.06765	0.006649	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-27S	0.108	0.096	2	No	16	0.1018	0.007225	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28I	0.0915	0.0862	2	No	16	0.08876	0.003645	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28S	0.2177	0.2027	2	No	16	0.2102	0.01155	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.0732	0.06226	2	No	16	0.06773	0.008408	0	None	No	0.01	Param.
Beryllium (mg/L)	YGWC-26S	0.003	0.00011	0.004	No	14	0.000565	0.001032	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-27I	0.003	0.0001	0.004	No	14	0.0007907	0.001198	21.43	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-28I	0.00055	0.00009	0.005	No	14	0.0003343	0.0004118	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-29I	0.00026	0.0001	0.005	No	14	0.0003371	0.0003901	14.29	None	No	0.01	NP (normality)
Chromium (mg/L)	YGWC-26I	0.01	0.0006	0.1	No	14	0.006294	0.004571	57.14	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-26S	0.002761	0.001323	0.1	No	14	0.003943	0.003491	21.43	Kaplan-Meier	In(x)	0.01	Param.
Chromium (mg/L)	YGWC-27S	0.015	0.0005	0.1	No	14	0.009679	0.002959	85.71	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-28I	0.01	0.0005	0.1	No	14	0.007958	0.004058	78.57	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-28S	0.01	0.0005	0.1	No	14	0.008642	0.003452	85.71	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-29I	0.01	0.0005	0.1	No	14	0.009321	0.002539	92.86	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.002891	0.001983	0.035	No	16	0.0025	0.0008446	6.25	None	In(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.0495	0.0017	0.035	No	16	0.02107	0.02867	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0022	0.035	No	16	0.002544	0.0006723	6.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No	16	0.004714	0.001145	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.0012	0.00085	0.035	No	16	0.001263	0.001007	6.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.0006	0.035	No	16	0.003882	0.002	75	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.231	0.4873	5	No	15	0.8594	0.5491	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.9282	0.5491	5	No	16	0.7387	0.2913	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.272	2.921	5	No	16	3.596	1.038	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.087	0.6697	5	No	16	0.8785	0.3209	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.948	0.245	5	No	16	0.6106	0.348	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.9165	0.4416	5	No	16	0.6791	0.365	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.199	0.6989	5	No	16	0.9488	0.384	0	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.3	0.071	4	No	17	0.1822	0.1152	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-26S	0.35	0.24	4	No	17	0.2685	0.1021	64.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-27I	0.3	0.086	4	No	17	0.2394	0.09945	70.59	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-27S	0.2457	0.1134	4	No	17	0.2113	0.1111	17.65	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.3	0.08	4	No	17	0.1956	0.1074	29.41	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-28S	0.3044	0.1886	4	No	17	0.2465	0.09239	11.76	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-29I	0.3	0.059	4	No	17	0.1693	0.1149	41.18	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-26I	0.005	0.00059	0.005	No	12	0.004588	0.001426	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-26S	0.005	0.0001	0.005	No	12	0.004182	0.001911	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-27S	0.005	0.000085	0.005	No	12	0.003779	0.002209	75	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-28S	0.005	0.00007	0.005	No	12	0.003767	0.002231	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-26I	0.007022	0.006453	0.03	No	16	0.006738	0.000438	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-27I	0.01085	0.008414	0.03	No	16	0.009631	0.001871	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-28I	0.007106	0.006657	0.03	No	16	0.006881	0.0003449	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-29I	0.006631	0.005481	0.03	No	16	0.006056	0.0008839	0	None	No	0.01	Param.
Molybdenum (mg/L)	YGWC-27I	0.01	0.0013	0.014	No	16	0.006756	0.004328	62.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.01	0.0013	0.014	No	16	0.006206	0.004443	56.25	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28S	0.01	0.0007	0.014	No	16	0.008831	0.003194	87.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-26I	0.0023	0.0017	0.05	No	14	0.003071	0.002941	14.29	None	No	0.01	NP (normality)
Selenium (mg/L)	YGWC-26S	0.01	0.0012	0.05	No	14	0.00745	0.004192	71.43	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-28I	0.01	0.0012	0.05	No	14	0.009371	0.002352	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-28S	0.01	0.001	0.05	No	14	0.009357	0.002405	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-26S	0.001	0.000057	0.002	No	12	0.0008427	0.0003675	83.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-27S	0.001	0.0001	0.002	No	12	0.0005525	0.0004674	50	None	No	0.01	NP (normality)

## FIGURE A.

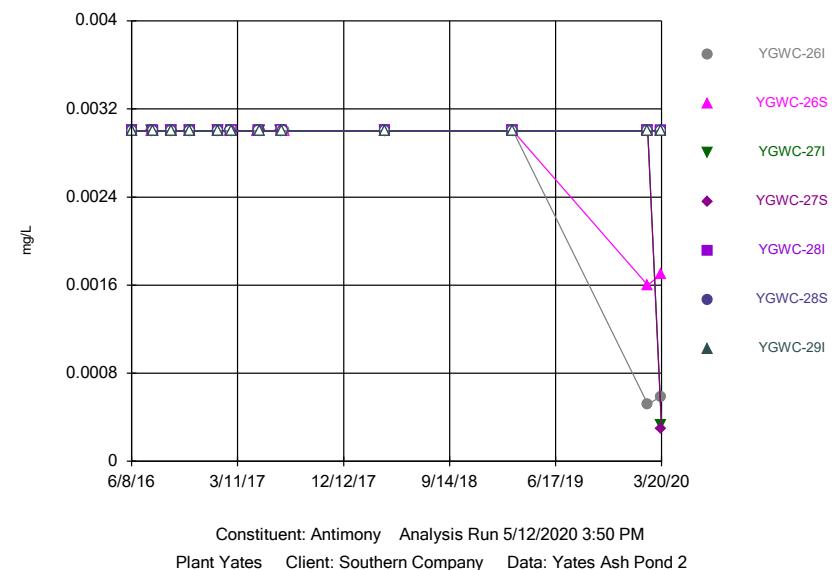
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Hollow symbols indicate censored values.

### Time Series



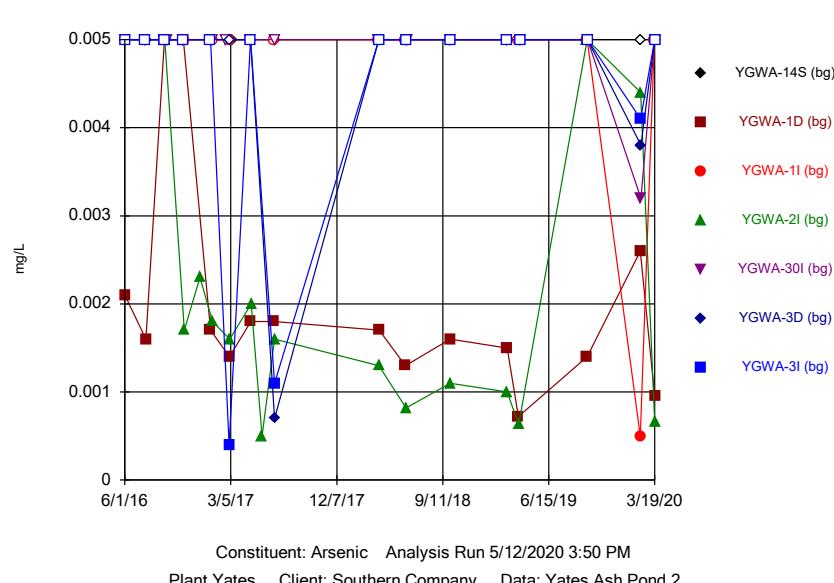
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### Time Series



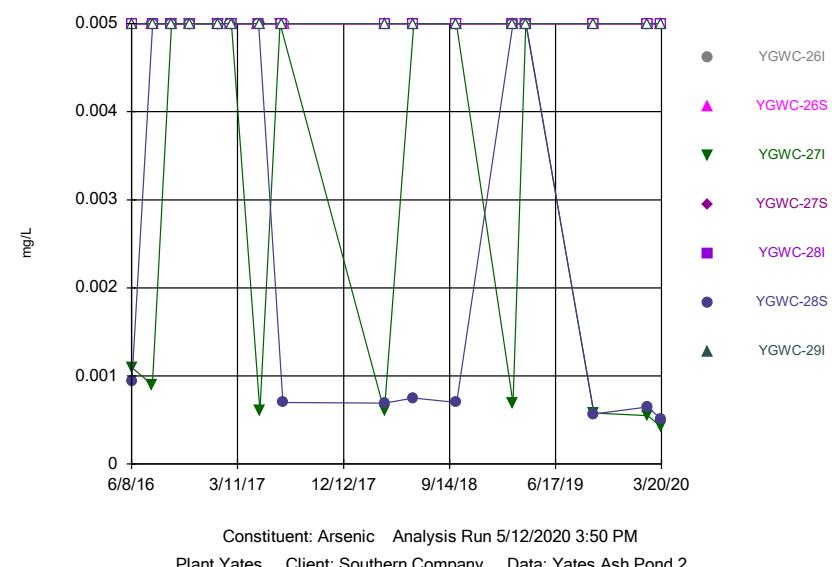
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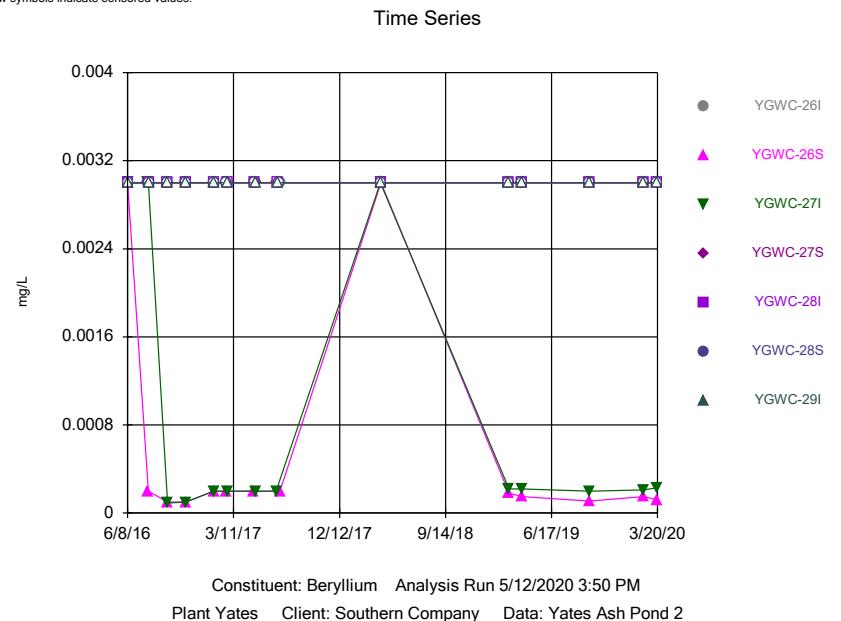
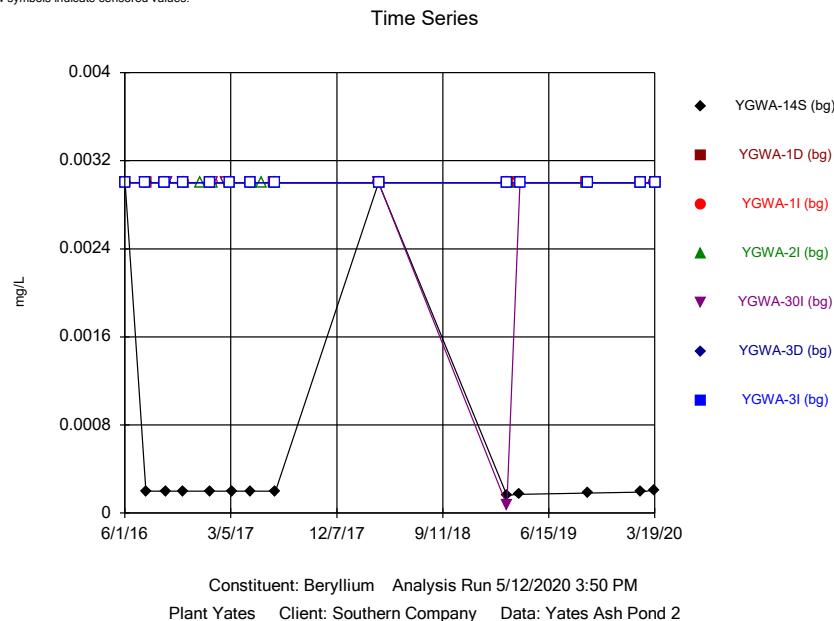
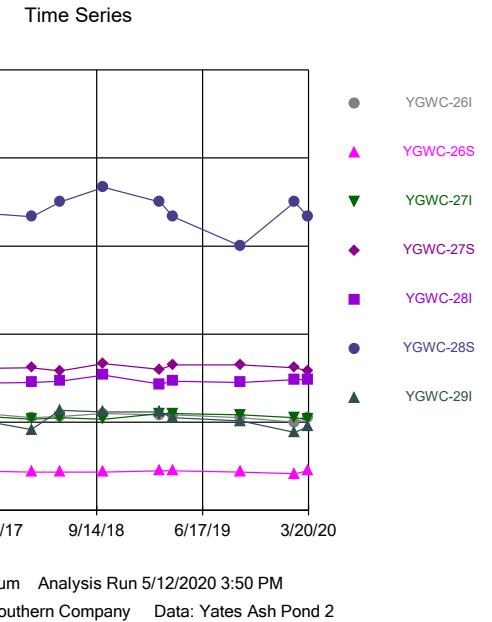
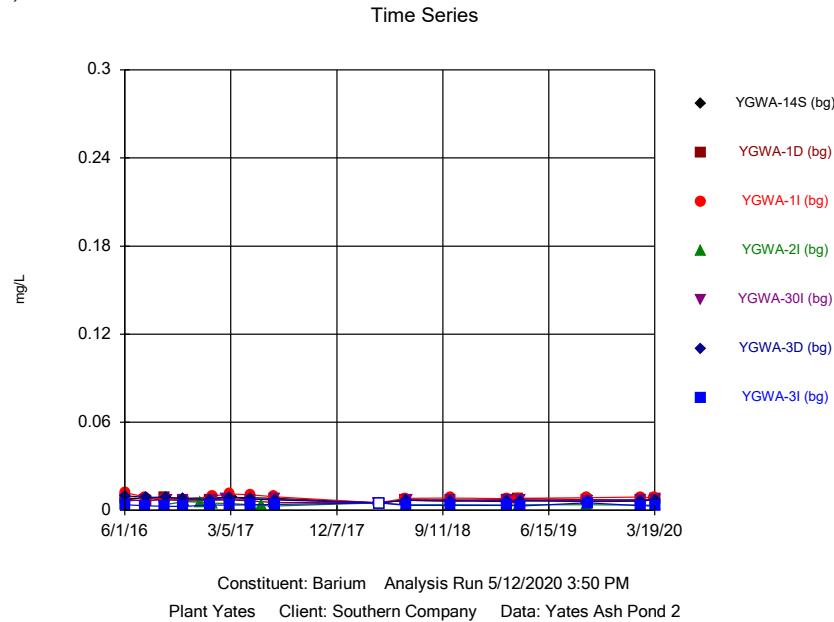
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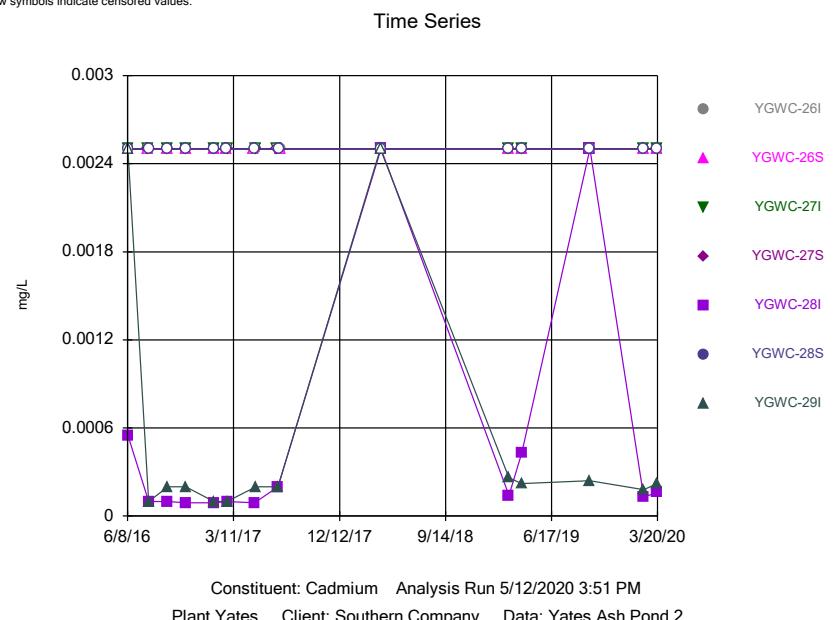
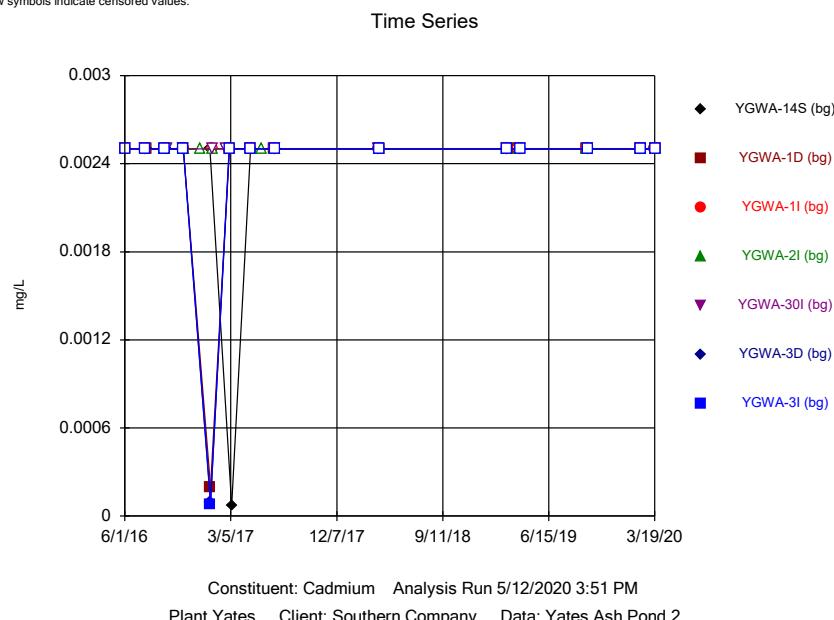
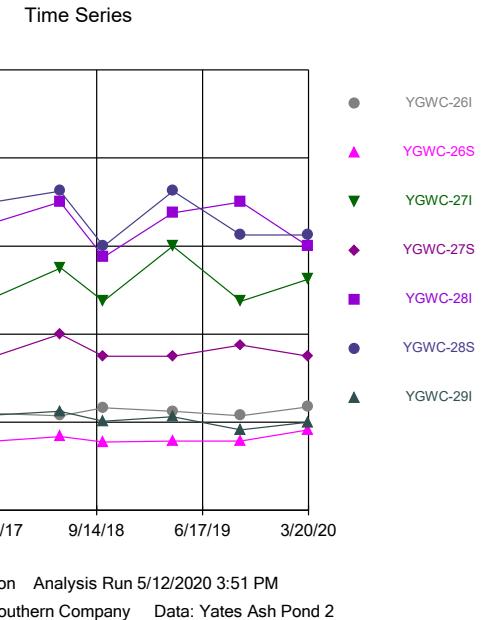
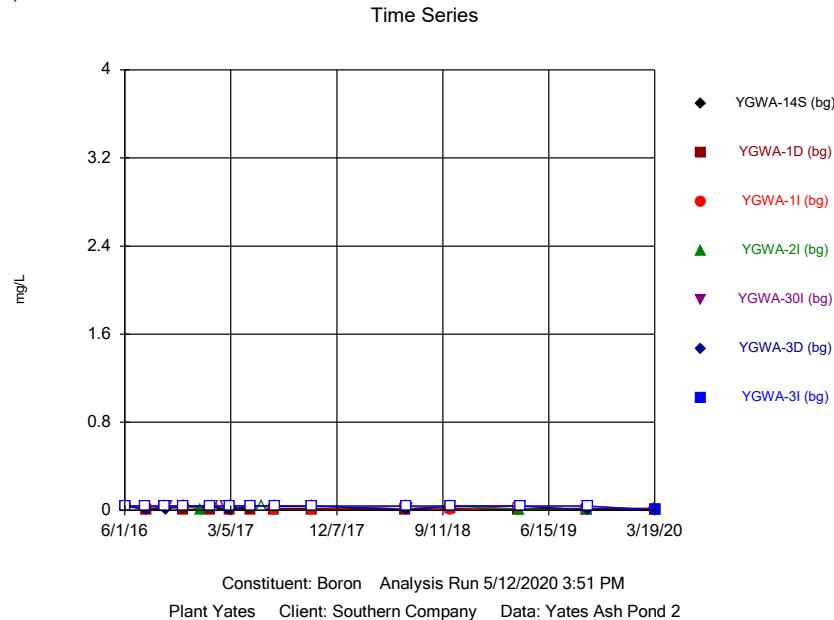


Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

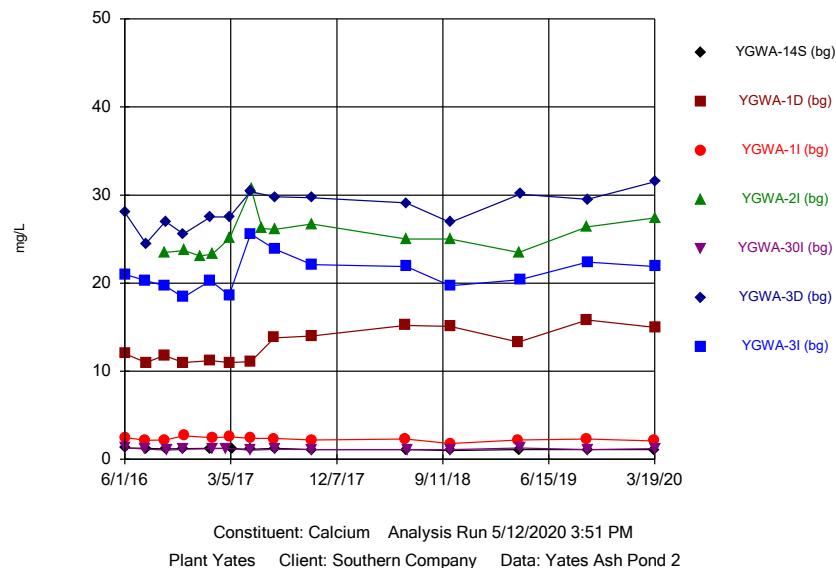
### Time Series



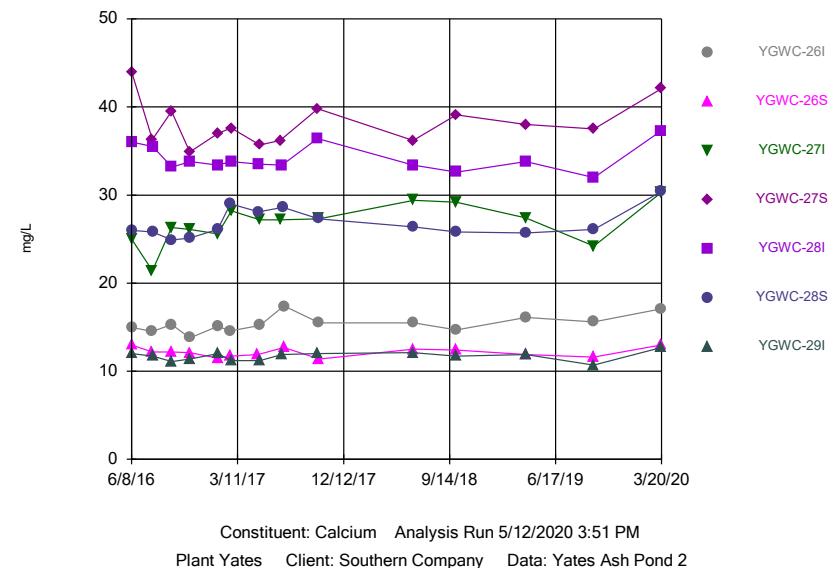




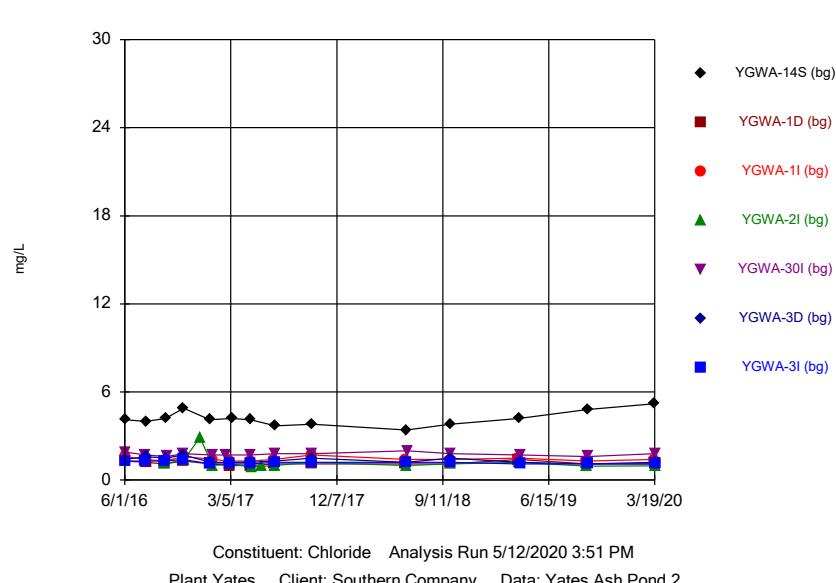
## Time Series



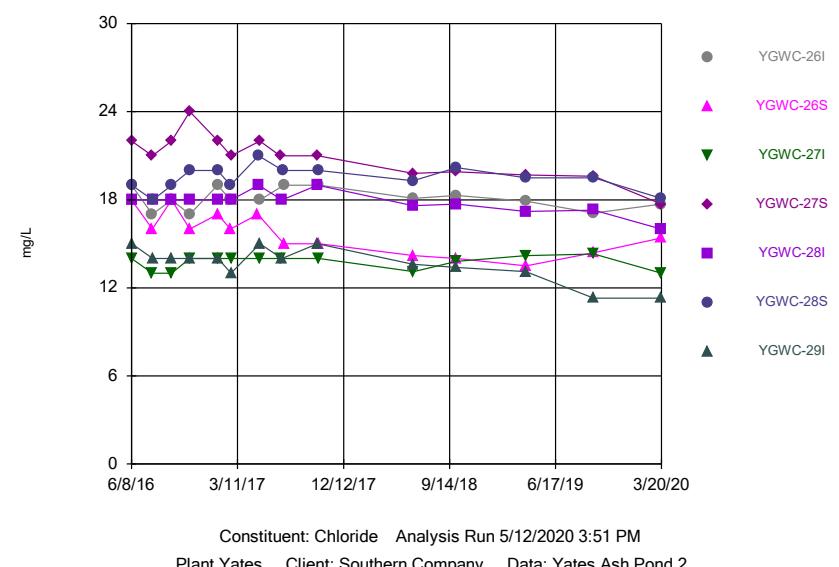
## Time Series



## Time Series

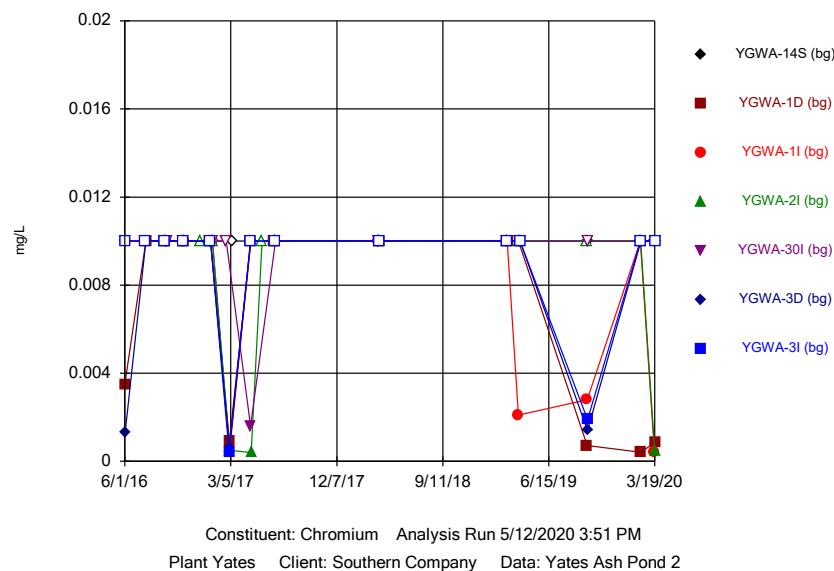


## Time Series



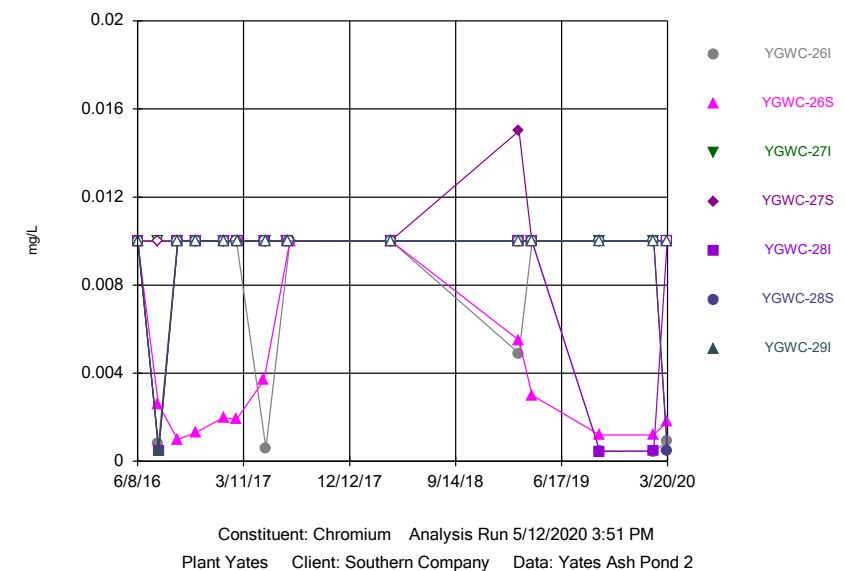
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



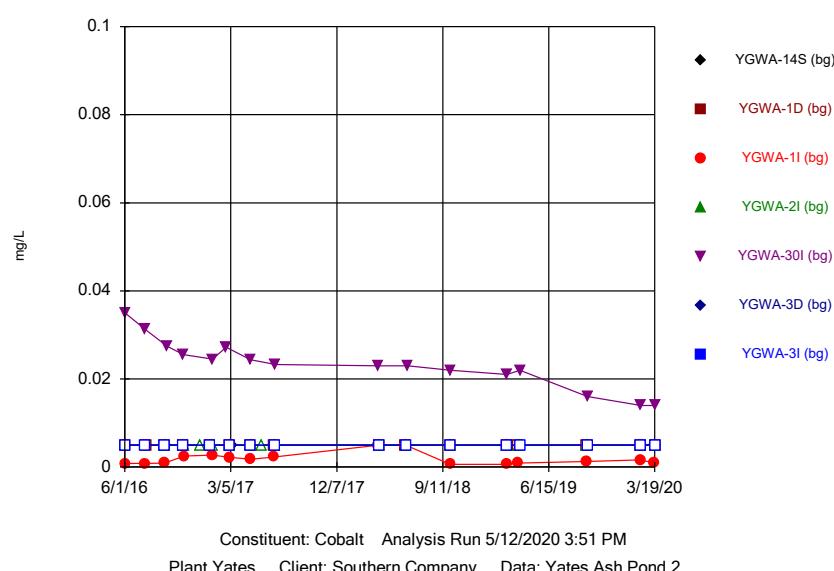
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



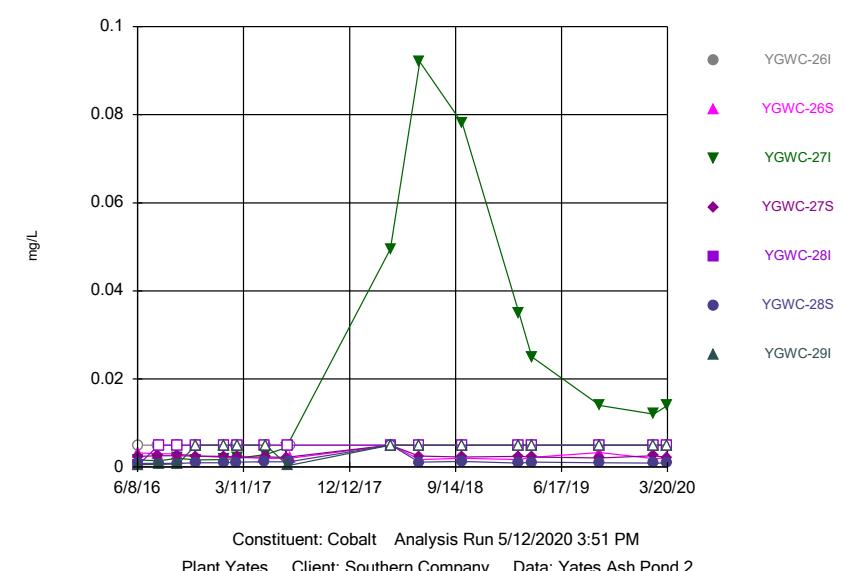
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series

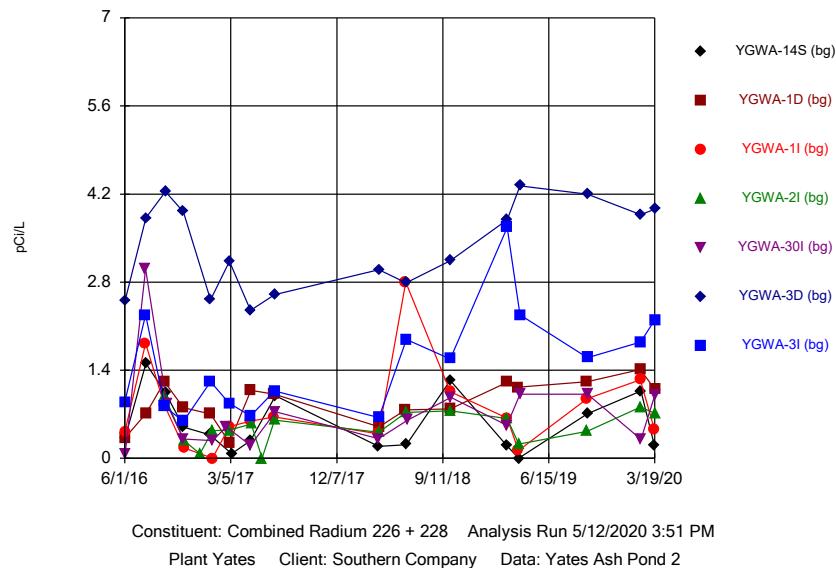


Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

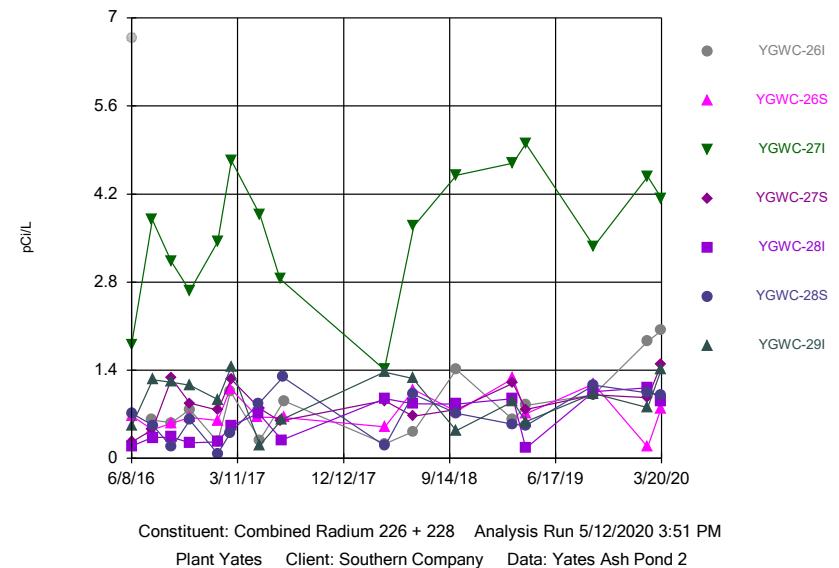
### Time Series



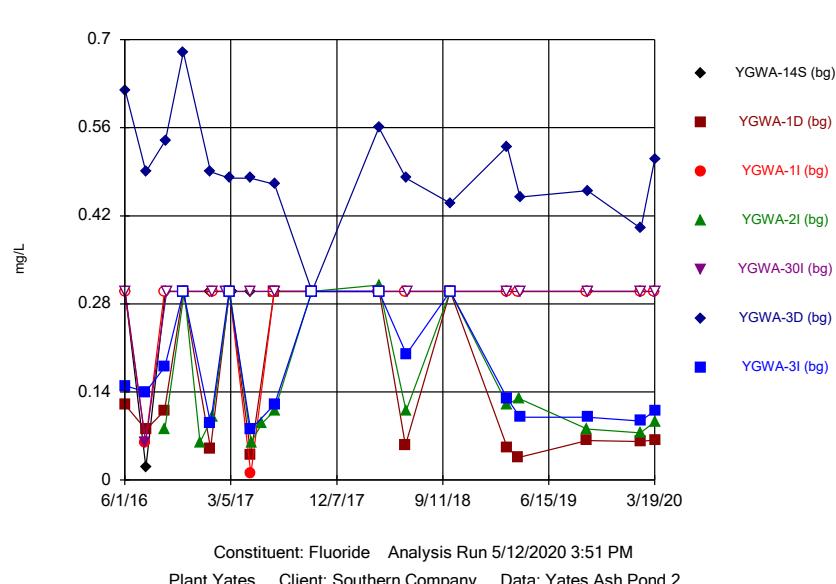
## Time Series



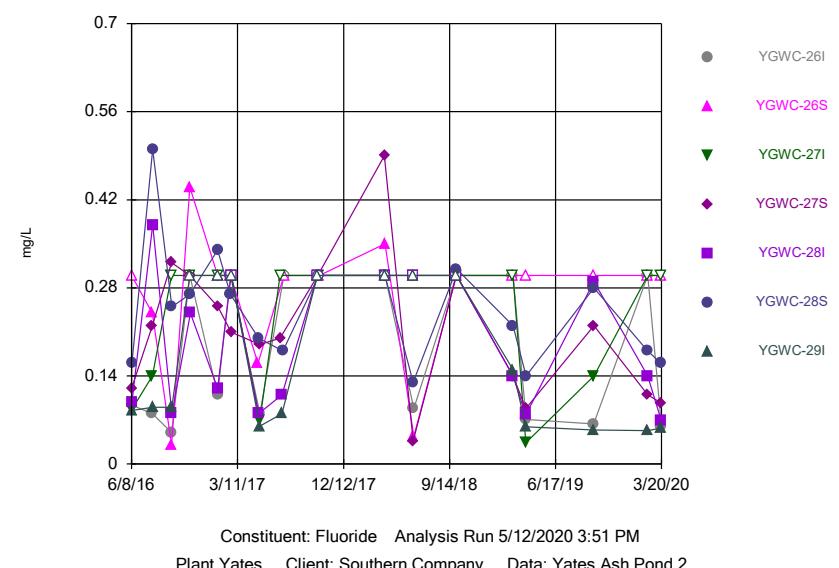
## Time Series



## Time Series

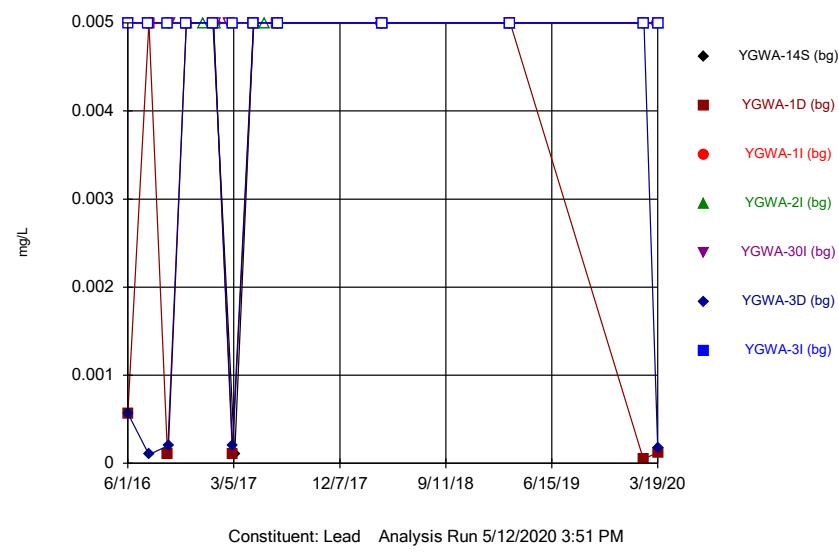


## Time Series



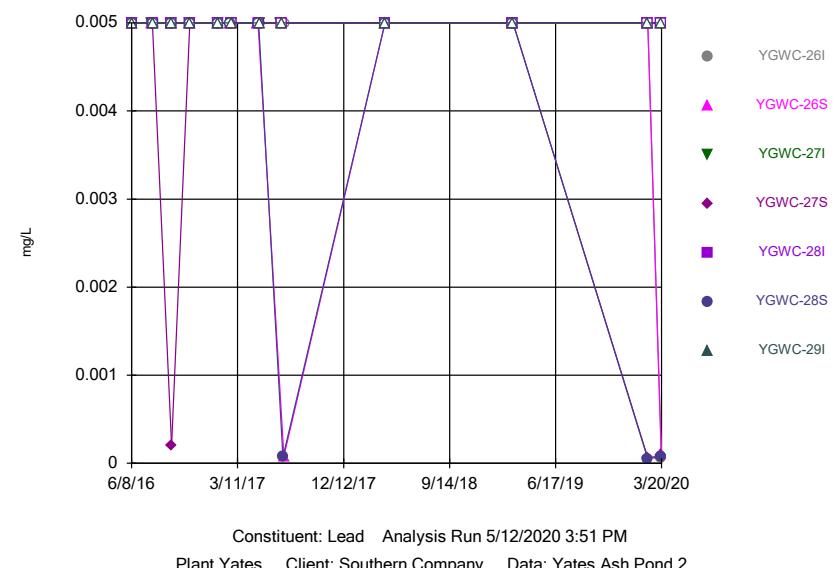
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



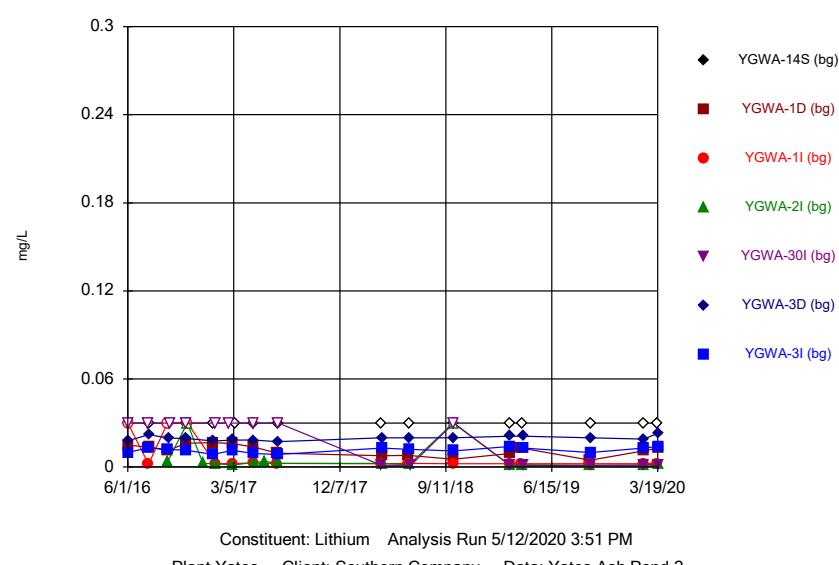
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



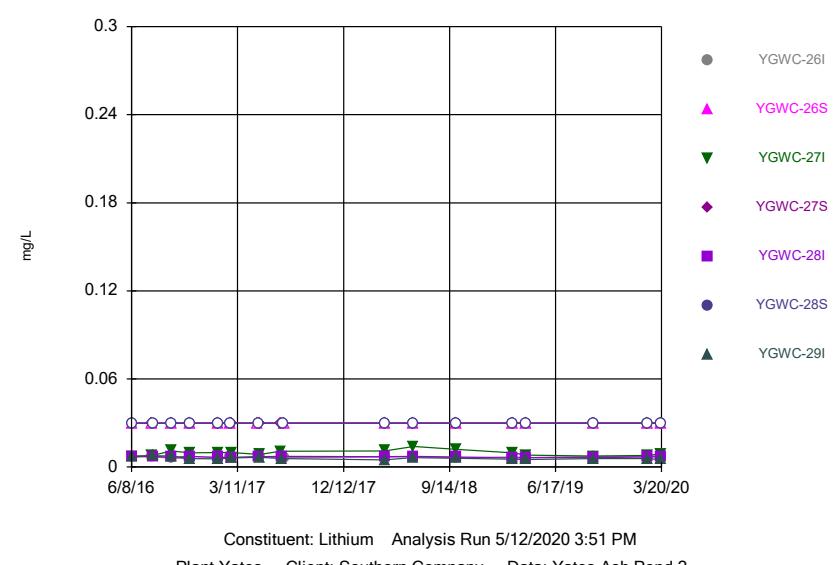
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



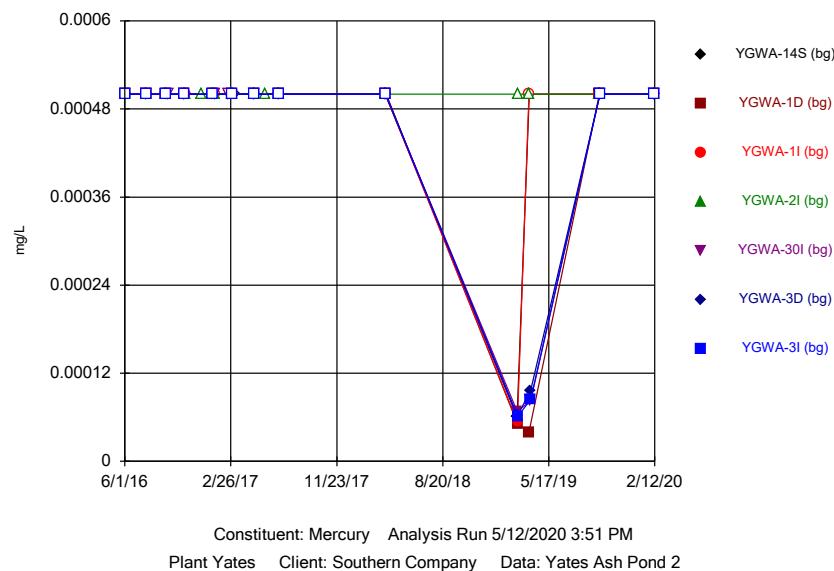
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



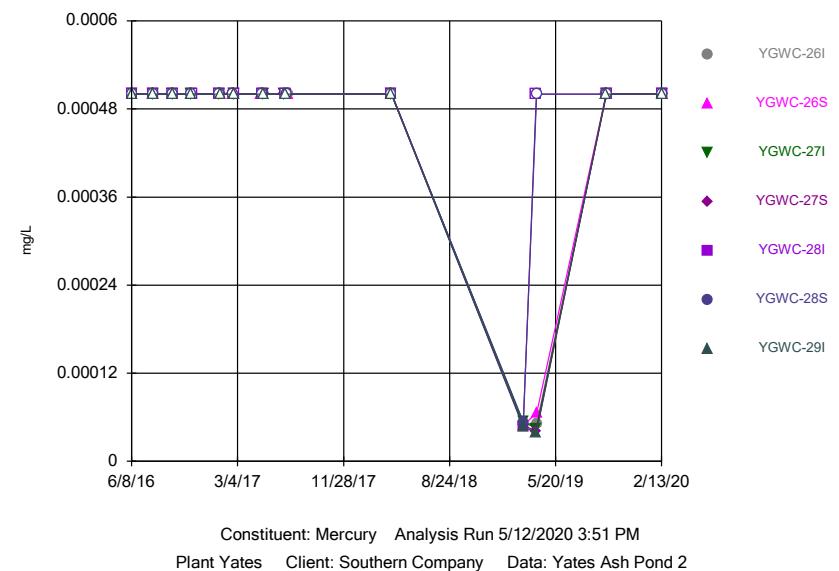
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



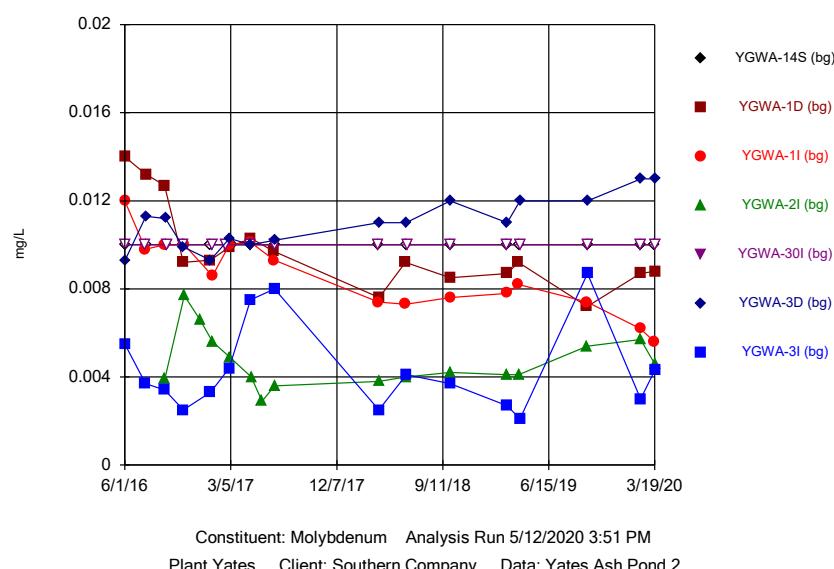
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



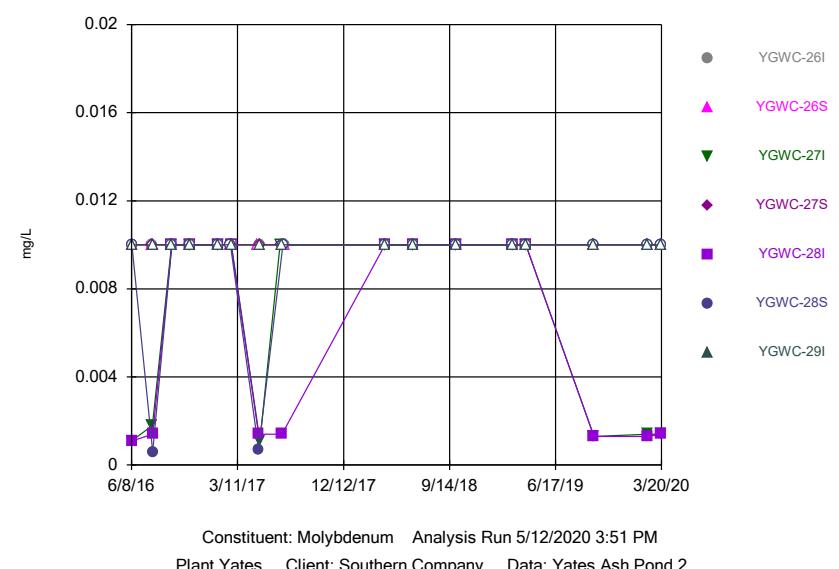
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

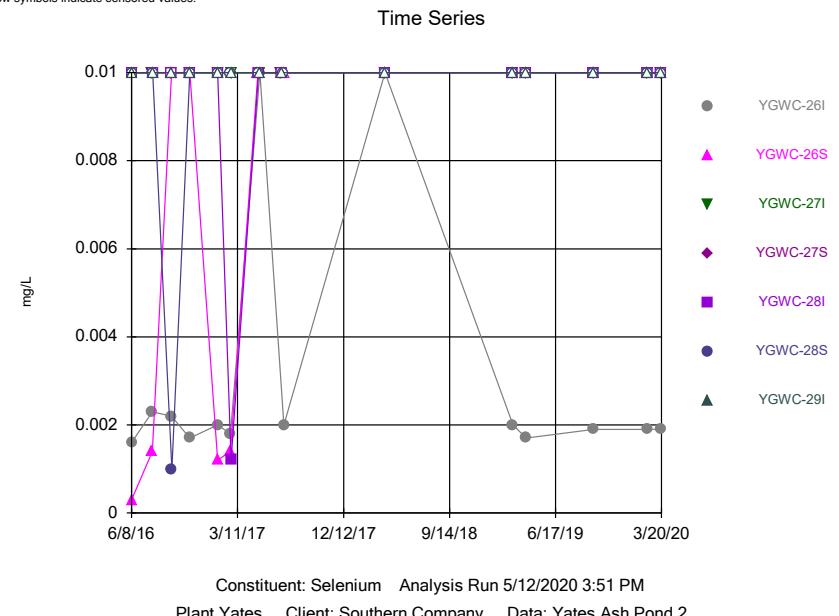
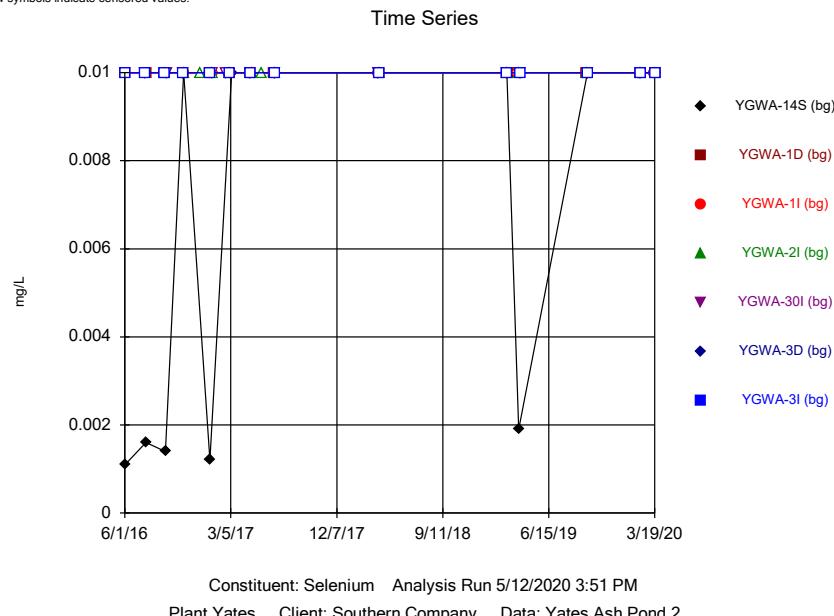
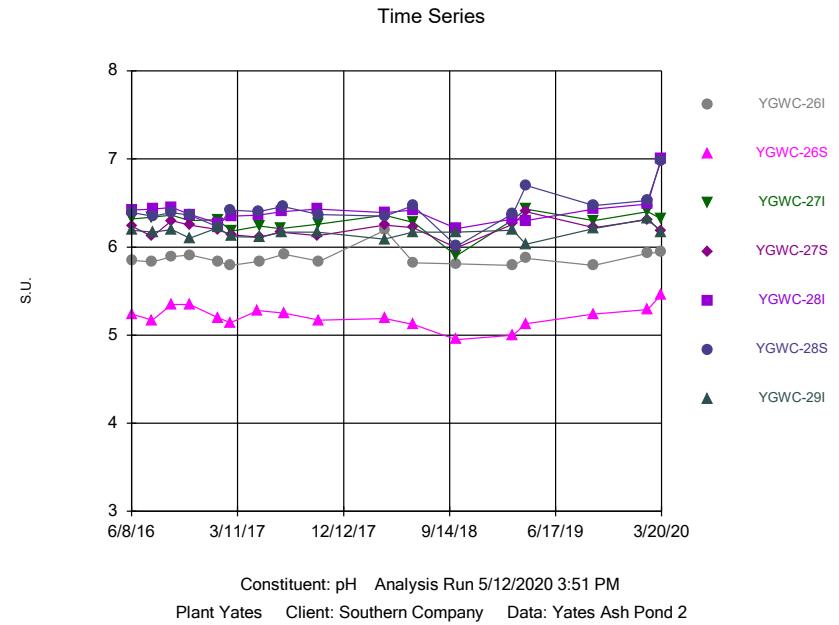
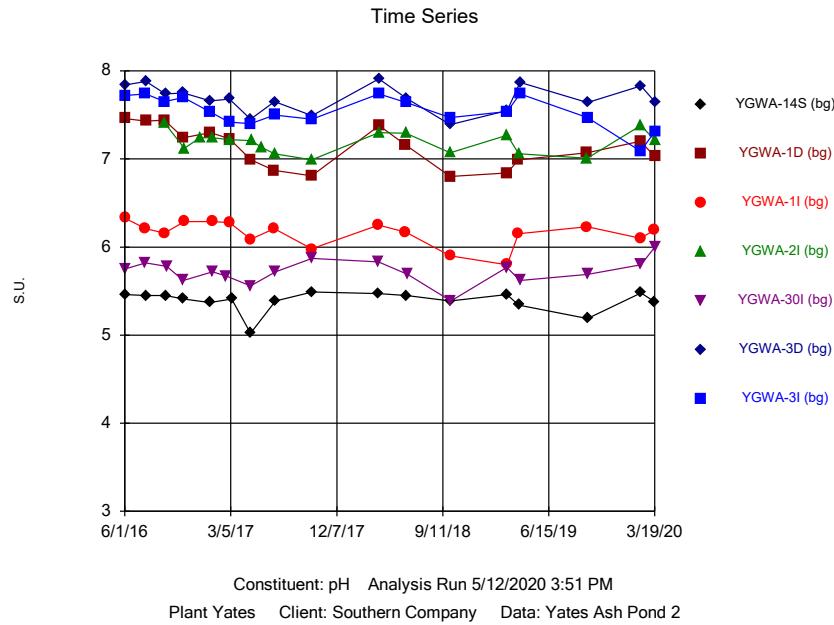
### Time Series



Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

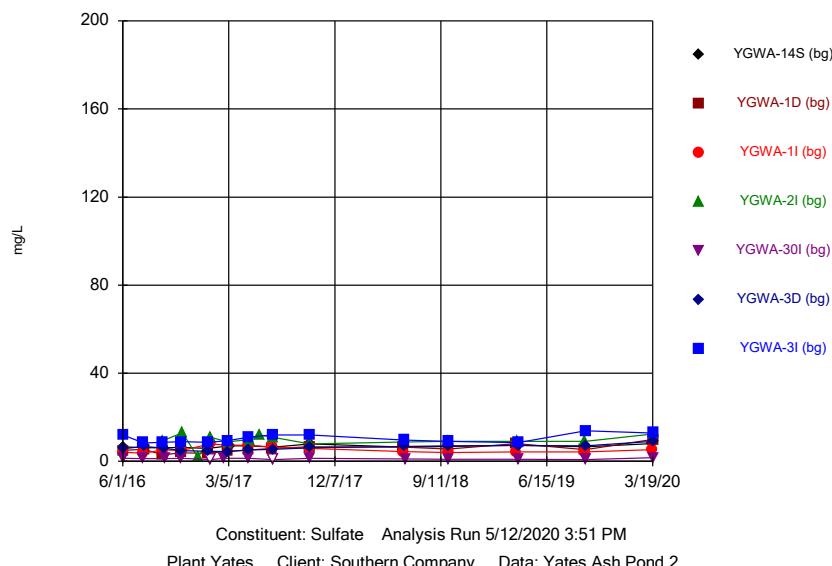
### Time Series





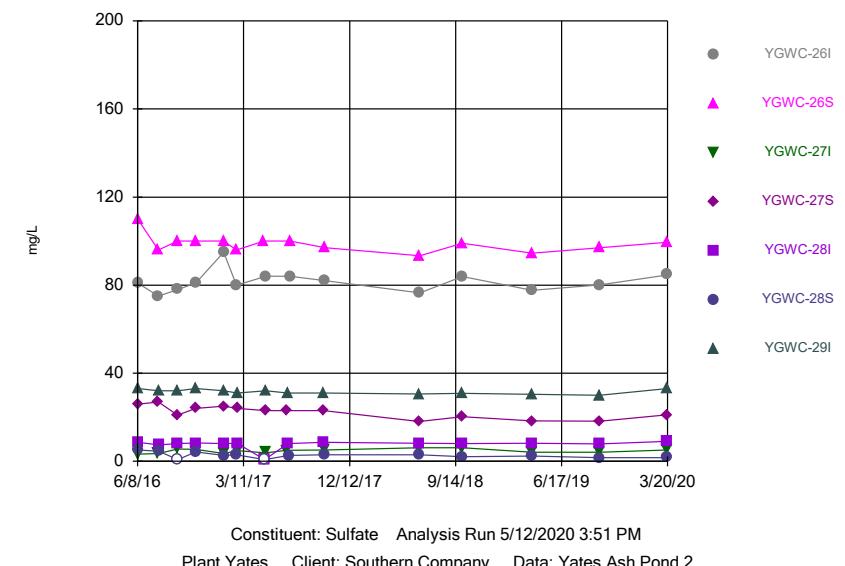
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



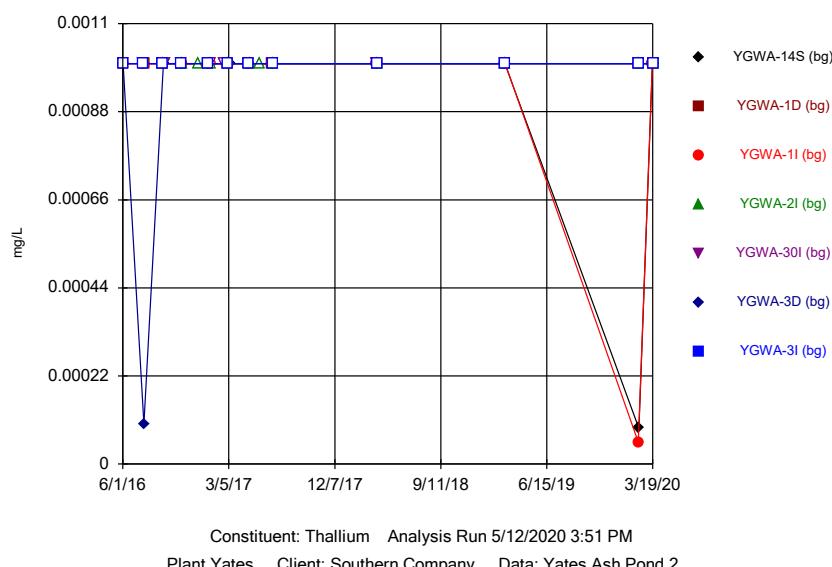
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



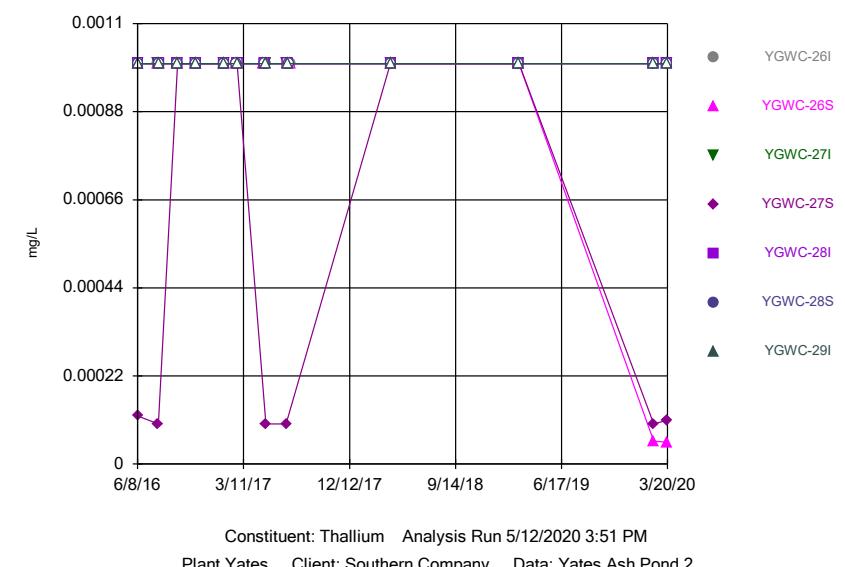
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



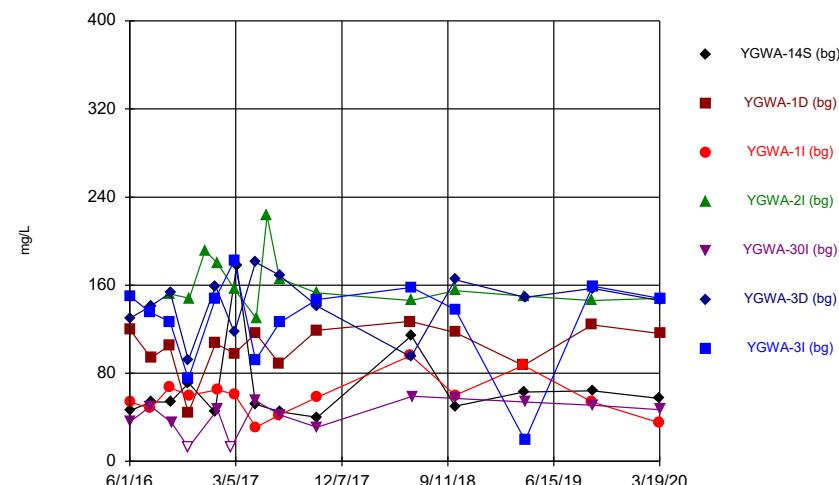
Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

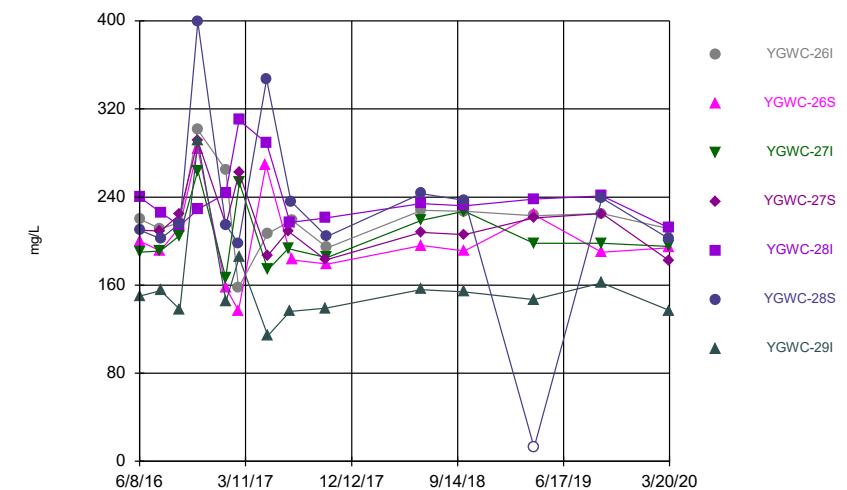
### Time Series



Constituent: Total Dissolved Solids Analysis Run 5/12/2020 3:51 PM  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.25 Groundwater Stats Consulting, UG  
Hollow symbols indicate censored values.

### Time Series



Constituent: Total Dissolved Solids Analysis Run 5/12/2020 3:51 PM  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## Time Series

Constituent: Antimony (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		<0.003	<0.003				<0.003
6/2/2016	<0.003				<0.003	<0.003	
7/25/2016			<0.003 (*)		<0.003 (*)		<0.003 (*)
7/26/2016	0.0005 (J)	0.001 (J)				0.002 (J)	
9/13/2016		0.001 (J)	<0.003				
9/14/2016				<0.003			<0.003
9/15/2016	<0.003					0.0027 (J)	
9/19/2016					<0.003		
11/1/2016		0.0015 (J)			<0.003	<0.003	<0.003
11/2/2016	<0.003						
11/4/2016			<0.003	<0.003			
12/15/2016				0.0012 (J)			
1/10/2017	<0.003						
1/11/2017		<0.003				<0.003	<0.003
1/16/2017			<0.003	<0.003	<0.003		
2/21/2017					<0.003		
3/1/2017							<0.003
3/2/2017		0.0004 (J)	<0.003			0.0008 (J)	
3/3/2017				<0.003			
3/8/2017	<0.003						
4/26/2017	<0.003				<0.003	<0.003	<0.003
4/27/2017		0.0004 (J)	0.0017 (J)				
4/28/2017				0.0015 (J)			
5/26/2017				0.0005 (J)			
6/27/2017		<0.003	<0.003				
6/28/2017				<0.003		<0.003	<0.003
6/30/2017	<0.003				<0.003		
3/27/2018	<0.003		<0.003		<0.003		
3/28/2018				<0.003		<0.003	<0.003
3/29/2018		<0.003					
2/26/2019	<0.003				<0.003		
2/27/2019		<0.003	<0.003	<0.003		<0.003	<0.003
2/10/2020		0.00088 (J)	<0.003				
2/11/2020				0.00036 (J)			<0.003
2/12/2020	<0.003				<0.003	<0.003	
3/18/2020	<0.003		0.0004 (J)				
3/19/2020		<0.003		0.0003 (J)	<0.003	0.00064 (J)	<0.003

## Time Series

Constituent: Antimony (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.003	<0.003	<0.003	<0.003			
6/9/2016					<0.003	<0.003	<0.003
8/1/2016	<0.003	<0.003	<0.003	<0.003			
8/2/2016					<0.003	<0.003	<0.003
9/20/2016	<0.003	<0.003	<0.003	<0.003			
9/21/2016					<0.003	<0.003	<0.003
11/7/2016	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003
11/8/2016					<0.003		
1/18/2017	<0.003	<0.003	<0.003		<0.003	<0.003	
1/19/2017					<0.003		<0.003
2/21/2017	<0.003	<0.003				<0.003	
2/22/2017					<0.003	<0.003	
2/23/2017			<0.003				
5/3/2017		<0.003			<0.003	<0.003	
5/5/2017					<0.003		
5/8/2017	<0.003		<0.003	<0.003			<0.003
6/30/2017			<0.003	<0.003			
7/5/2017					<0.003		<0.003
7/7/2017						<0.003	
7/10/2017	<0.003	<0.003					
3/29/2018			<0.003	<0.003			<0.003
3/30/2018	<0.003	<0.003			<0.003	<0.003	
2/27/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/13/2020	0.00052 (J)	0.0016 (J)	<0.003	<0.003	<0.003	<0.003	<0.003
3/19/2020		0.0017 (J)			<0.003	<0.003	
3/20/2020	0.00059 (J)		0.00033 (J)	0.0003 (J)			<0.003

## Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		0.0021	<0.005		<0.005	<0.005	<0.005
6/2/2016	<0.005				<0.005	<0.005	
7/25/2016			<0.005		<0.005		<0.005
7/26/2016	<0.005	0.0016 (J)				<0.005	
9/13/2016		<0.005	<0.005				
9/14/2016				<0.005			<0.005
9/15/2016	<0.005					<0.005	
9/19/2016					<0.005		
11/1/2016		<0.005			<0.005	<0.005	<0.005
11/2/2016	<0.005						
11/4/2016			<0.005	0.0017 (J)			
12/15/2016				0.0023 (J)			
1/10/2017	<0.005						
1/11/2017		0.0017 (J)				<0.005	<0.005
1/16/2017			<0.005	0.0018 (J)	<0.005		
2/21/2017					<0.005		
3/1/2017							0.0004 (J)
3/2/2017		0.0014 (J)	<0.005			<0.005	
3/3/2017				0.0016 (J)			
3/8/2017	<0.005						
4/26/2017	<0.005 (*)				<0.005	<0.005 (*)	<0.005 (*)
4/27/2017		0.0018 (J)	<0.005				
4/28/2017				0.002 (J)			
5/26/2017				0.0005 (J)			
6/27/2017		0.0018 (J)	<0.005				
6/28/2017				0.0016 (J)		0.0007 (J)	0.0011 (J)
6/30/2017	<0.005				<0.005		
3/27/2018	<0.005		<0.005		<0.005		
3/28/2018				0.0013 (J)		<0.005	<0.005
3/29/2018		0.0017 (J)					
6/5/2018		0.0013 (J)					
6/6/2018			<0.005				
6/7/2018				0.00082 (J)		<0.005	
6/8/2018	<0.005						<0.005
6/11/2018					<0.005		
10/1/2018	<0.005	0.0016 (J)	<0.005	0.0011 (J)		<0.005	<0.005
10/2/2018					<0.005		
2/26/2019	<0.005				<0.005		
2/27/2019		0.0015 (J)	<0.005	0.001 (J)		<0.005	<0.005
3/28/2019		0.00072 (J)	<0.005				
3/29/2019	<0.005			0.00063 (J)			
4/1/2019					<0.005	<0.005	<0.005
9/24/2019		0.0014 (J)	<0.005	<0.005			
9/25/2019	<0.005				<0.005	<0.005	<0.005
2/10/2020		0.0026 (J)	0.0005 (J)		0.0044 (J)		0.0041 (J)
2/11/2020							
2/12/2020	<0.005				0.0032 (J)	0.0038 (J)	
3/18/2020	<0.005		<0.005				
3/19/2020		0.00095 (J)		0.00066 (J)	<0.005	<0.005	<0.005

## Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.005	<0.005	0.0011 (J)	<0.005			
6/9/2016					<0.005	0.00094 (J)	<0.005
8/1/2016	<0.005	<0.005	0.0009 (J)	<0.005			
8/2/2016					<0.005	<0.005	<0.005
9/20/2016	<0.005	<0.005	<0.005	<0.005			
9/21/2016					<0.005	<0.005	<0.005
11/7/2016	<0.005	<0.005	<0.005	<0.005			
11/8/2016					<0.005		
1/18/2017	<0.005	<0.005	<0.005		<0.005	<0.005	
1/19/2017					<0.005		<0.005
2/21/2017	<0.005	<0.005				<0.005	
2/22/2017					<0.005	<0.005	
2/23/2017			<0.005				
5/3/2017		<0.005			<0.005	<0.005	
5/5/2017							
5/8/2017	<0.005		0.0006 (J)	<0.005			<0.005
6/30/2017			<0.005 (*)	<0.005 (*)			
7/5/2017					<0.005		<0.005
7/7/2017						0.0007 (J)	
7/10/2017	<0.005	<0.005					
3/29/2018			0.0006 (J)	<0.005			<0.005
3/30/2018	<0.005	<0.005			<0.005	0.00069 (J)	
6/11/2018							<0.005
6/12/2018				<0.005	<0.005	0.00075 (J)	
6/13/2018	<0.005	<0.005	<0.005				
10/2/2018	<0.005	<0.005	<0.005	<0.005			<0.005
10/3/2018					<0.005	0.0007 (J)	
2/27/2019	<0.005	<0.005	0.00069 (J)	<0.005	<0.005	<0.005	<0.005
4/1/2019			<0.005	<0.005	<0.005		<0.005
4/2/2019	<0.005	<0.005				<0.005	
9/25/2019	<0.005	<0.005					<0.005
9/26/2019			0.00058 (J)	<0.005	<0.005	0.00057 (J)	
2/13/2020	<0.005	<0.005	0.00055 (J)	<0.005	<0.005	0.00065 (J)	<0.005
3/19/2020		<0.005			<0.005	0.00051 (J)	
3/20/2020	<0.005		0.00042 (J)	<0.005			<0.005

## Time Series

Constituent: Barium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		0.008	0.012		0.0064	0.01	0.0038
6/2/2016	0.0081			0.0091 (J)	0.0071 (J)		0.0031 (J)
7/25/2016							
7/26/2016	0.0082 (J)	0.006 (J)				0.0088 (J)	
9/13/2016		0.0084 (J)	0.008 (J)				
9/14/2016				0.0037 (J)			0.0027 (J)
9/15/2016	0.0087 (J)					0.009 (J)	
9/19/2016					0.0069 (J)		
11/1/2016		0.0062 (J)			0.007 (J)	0.0079 (J)	0.0027 (J)
11/2/2016	0.0082 (J)						
11/4/2016			0.0067 (J)	0.0059 (J)			
12/15/2016				0.0056 (J)			
1/10/2017	0.0086 (J)						
1/11/2017		0.0069 (J)				0.0075 (J)	0.0036 (J)
1/16/2017			0.0096 (J)	0.0049 (J)	0.0071 (J)		
2/21/2017					0.0077 (J)		
3/1/2017							0.0036 (J)
3/2/2017		0.0071 (J)	0.0112			0.009 (J)	
3/3/2017				0.0046 (J)			
3/8/2017	0.0088 (J)						
4/26/2017	0.0085 (J)				0.0074 (J)	0.0078 (J)	0.0038 (J)
4/27/2017		0.0064 (J)	0.0106				
4/28/2017				0.0039 (J)			
5/26/2017				0.0034 (J)			
6/27/2017		0.0054 (J)	0.0092 (J)				
6/28/2017				0.003 (J)		0.0071 (J)	0.004 (J)
6/30/2017	0.0081 (J)				0.0076 (J)		
3/27/2018	<0.01		<0.01		<0.01		
3/28/2018				<0.01		<0.01	<0.01
3/29/2018	<0.01						
6/5/2018		0.0069 (J)					
6/6/2018			0.0082 (J)				
6/7/2018				0.0037 (J)		0.0068 (J)	
6/8/2018	0.007 (J)						0.0034 (J)
6/11/2018					0.007 (J)		
10/1/2018	0.007 (J)	0.0062 (J)	0.0084 (J)	0.0038 (J)		0.0065 (J)	0.0034 (J)
10/2/2018					0.0069 (J)		
2/26/2019	0.0067 (J)				0.007 (J)		
2/27/2019		0.0074 (J)	0.008 (J)	0.0035 (J)		0.0059 (J)	0.0034 (J)
3/28/2019		0.0082 (J)	0.0082 (J)				
3/29/2019	0.0066 (J)			0.0039 (J)			
4/1/2019					0.0072 (J)	0.0064 (J)	0.003 (J)
9/24/2019		0.0072 (J)	0.0086 (J)	0.0038 (J)			
9/25/2019	0.0071 (J)				0.0066 (J)	0.0059 (J)	0.005 (J)
2/10/2020		0.0066 (J)	0.0091 (J)				
2/11/2020				0.0036 (J)			0.0031 (J)
2/12/2020	0.007 (J)				0.0073 (J)	0.0062 (J)	
3/18/2020	0.0076 (J)		0.0084 (J)				
3/19/2020		0.0076 (J)		0.0036 (J)	0.0074 (J)	0.0072 (J)	0.0029 (J)

## Time Series

Constituent: Barium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.068	0.029	0.081	0.12			
6/9/2016					0.1	0.22	0.082
8/1/2016	0.0688	0.0316	0.0838	0.115			
8/2/2016					0.0836	0.212	0.0781
9/20/2016	0.0663	0.0298	0.0687	0.108			
9/21/2016					0.0889	0.228	0.0782
11/7/2016	0.065	0.0289	0.0639	0.102			0.0712
11/8/2016					0.0886		
1/18/2017	0.0625	0.0278	0.0645		0.0862	0.213	
1/19/2017				0.102			0.0689
2/21/2017	0.0655	0.0282				0.222	
2/22/2017				0.106	0.0915		0.0741
2/23/2017		0.0282					
5/3/2017					0.0891	0.219	
5/5/2017							
5/8/2017	0.0699		0.0721	0.102			0.0725
6/30/2017			0.0666	0.0963			
7/5/2017					0.0862		0.0677
7/7/2017						0.205	
7/10/2017	0.0691	0.0274					
3/29/2018			0.062	0.097			0.055
3/30/2018	0.063	0.026			0.087	0.2	
6/11/2018							0.068
6/12/2018				0.095	0.088	0.21	
6/13/2018	0.064	0.026	0.063				
10/2/2018	0.066	0.026	0.062	0.1			0.067
10/3/2018					0.092	0.22	
2/27/2019	0.065	0.027	0.066	0.096	0.086	0.21	0.067
4/1/2019			0.066	0.099	0.088		0.063
4/2/2019	0.065	0.027				0.2	
9/25/2019	0.063	0.026					0.061
9/26/2019				0.065	0.099	0.087	0.18
2/13/2020	0.06	0.025	0.063	0.097	0.089	0.21	0.053
3/19/2020		0.027			0.089	0.2	
3/20/2020	0.063		0.062	0.095			0.057

## Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		<0.003	<0.003				<0.003
6/2/2016	<0.003				<0.003	<0.003	
7/25/2016			<0.003		<0.003		<0.003
7/26/2016	0.0002 (J)	<0.003				<0.003	
9/13/2016		<0.003	<0.003				
9/14/2016				<0.003			<0.003
9/15/2016	0.0002 (J)					<0.003	
9/19/2016					<0.003		
11/1/2016		<0.003			<0.003	<0.003	<0.003
11/2/2016	0.0002 (J)						
11/4/2016			<0.003	<0.003			
12/15/2016				<0.003			
1/10/2017	0.0002 (J)						
1/11/2017		<0.003				<0.003	<0.003
1/16/2017			<0.003	<0.003	<0.003		
2/21/2017					<0.003		
3/1/2017							<0.003
3/2/2017		<0.003	<0.003			<0.003	
3/3/2017				<0.003			
3/8/2017	0.0002 (J)						
4/26/2017	0.0002 (J)				<0.003	<0.003	<0.003
4/27/2017		<0.003	<0.003				
4/28/2017				<0.003			
5/26/2017				<0.003			
6/27/2017		<0.003	<0.003				
6/28/2017				<0.003		<0.003	<0.003
6/30/2017	0.0002 (J)				<0.003		
3/27/2018	<0.003		<0.003		<0.003		
3/28/2018				<0.003		<0.003	<0.003
3/29/2018		<0.003					
2/26/2019	0.00016 (J)				7.2E-05 (J)		
2/27/2019		<0.003	<0.003	<0.003		<0.003	<0.003
3/28/2019		<0.003	<0.003				
3/29/2019	0.00017 (J)			<0.003			
4/1/2019					<0.003	<0.003	<0.003
9/24/2019		<0.003	<0.003	<0.003			
9/25/2019	0.00018 (J)				<0.003	<0.003	<0.003
2/10/2020		<0.003	<0.003				
2/11/2020				<0.003			<0.003
2/12/2020	0.00019 (J)				<0.003	<0.003	
3/18/2020	0.00021 (J)		<0.003		<0.003	<0.003	<0.003
3/19/2020		<0.003		<0.003	<0.003	<0.003	

## Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.003	<0.003	<0.003	<0.003			
6/9/2016					<0.003	<0.003	<0.003
8/1/2016	<0.003	0.0002 (J)	<0.003	<0.003			
8/2/2016					<0.003	<0.003	<0.003
9/20/2016	<0.003	0.0001 (J)	9E-05 (J)	<0.003			
9/21/2016					<0.003	<0.003	<0.003
11/7/2016	<0.003	0.0001 (J)	0.0001 (J)	<0.003			
11/8/2016					<0.003		
1/18/2017	<0.003	0.0002 (J)	0.0002 (J)		<0.003	<0.003	
1/19/2017					<0.003		<0.003
2/21/2017	<0.003	0.0002 (J)				<0.003	
2/22/2017					<0.003		<0.003
2/23/2017			0.0002 (J)				
5/3/2017		0.0002 (J)			<0.003	<0.003	
5/5/2017							
5/8/2017	<0.003		0.0002 (J)	<0.003			<0.003
6/30/2017			0.0002 (J)	<0.003			
7/5/2017					<0.003		<0.003
7/7/2017						<0.003	
7/10/2017	<0.003	0.0002 (J)					
3/29/2018				<0.003	<0.003		<0.003
3/30/2018	<0.003	<0.003				<0.003	
2/27/2019	<0.003	0.00018 (J)	0.00022 (J)	<0.003	<0.003	<0.003	<0.003
4/1/2019			0.00022 (J)	<0.003	<0.003		<0.003
4/2/2019	<0.003	0.00015 (J)				<0.003	
9/25/2019	<0.003	0.00011 (J)					<0.003
9/26/2019				0.0002 (J)	<0.003	<0.003	
2/13/2020	<0.003	0.00015 (J)	0.00021 (J)	<0.003	<0.003	<0.003	<0.003
3/19/2020			0.00012 (J)			<0.003	
3/20/2020	<0.003		0.00023 (J)	<0.003			<0.003

## Time Series

Constituent: Boron (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		<0.04	<0.04				<0.04
6/2/2016	<0.04				<0.04	<0.04	
7/25/2016			<0.04		<0.04		<0.04
7/26/2016	0.0177 (J)	0.0055 (J)				0.0097 (J)	
9/13/2016		<0.04	<0.04				
9/14/2016				<0.04			<0.04
9/15/2016	0.0214 (J)					0.0102 (J)	
9/19/2016					<0.04		
11/1/2016		0.0086 (J)			<0.04	<0.04	<0.04
11/2/2016	<0.04 (*)						
11/4/2016			<0.04	<0.04			
12/15/2016				0.0107 (J)			
1/10/2017	0.0198 (J)						
1/11/2017		0.0074 (J)				<0.04	<0.04
1/16/2017			<0.04	<0.04	<0.04		
2/21/2017					<0.04		
3/1/2017							<0.04 (*)
3/2/2017		0.008 (J)	<0.04			0.0084 (J)	
3/3/2017				<0.04			
3/8/2017	0.0189 (J)						
4/26/2017	0.0161 (J)				<0.04	<0.04	<0.04
4/27/2017		0.0066 (J)	<0.04				
4/28/2017				<0.04			
5/26/2017				<0.04			
6/27/2017		0.0087 (J)	0.006 (J)				
6/28/2017				<0.04		<0.04	<0.04
6/30/2017	0.0173 (J)				<0.04		
10/3/2017		0.0072 (J)	0.0071 (J)	<0.04			
10/4/2017					<0.04	<0.04	<0.04
10/5/2017	0.0173 (J)						
6/5/2018		0.0052 (J)					
6/6/2018			<0.04				
6/7/2018				<0.04		0.004 (J)	
6/8/2018	0.013 (J)						<0.04
6/11/2018					0.014 (J)		
10/1/2018	0.015 (J)	0.021 (J)	0.0049 (J)	<0.04		<0.04	<0.04
10/2/2018					<0.04		
3/28/2019		0.005 (J)	<0.04				
3/29/2019	0.014 (J)			0.0065 (J)			
4/1/2019					<0.04	<0.04	<0.04
9/24/2019		0.0064 (J)	0.0055 (J)	0.0076 (J)			
9/25/2019	0.018 (J)				<0.04	0.0054 (J)	<0.04
3/18/2020	0.02 (J)		0.0087 (J)				
3/19/2020		0.0085 (J)		0.0073 (J)	0.0052 (J)	0.0073 (J)	0.0053 (J)

## Time Series

Constituent: Boron (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.97	0.62	2.2	1.3			
6/9/2016					2.2	2.3	0.88
8/1/2016	0.932	0.643	2	1.36			
8/2/2016					2.22	2.21	0.872
9/20/2016	1.04	0.644	2.02	1.69			
9/21/2016					2.65	2.54	0.853
11/7/2016	0.852	0.621	1.91	1.35		2.49	0.815
11/8/2016					2.44		
1/18/2017	0.972	0.607	1.69		1.88	2.04	
1/19/2017				1.15			0.803
2/21/2017	0.972	0.624				2.29	
2/22/2017				1.3	2.05		0.855
2/23/2017			1.76				
5/3/2017		0.676			3.01	3.41	
5/5/2017							
5/8/2017	1.05		2	1.51			0.884
6/30/2017			2.28	1.47			
7/5/2017					2.7		0.811
7/7/2017						3.01	
7/10/2017	0.855	0.58			2.53		0.851
10/5/2017				1.31			
10/6/2017							
10/9/2017			1.82			2.76	
10/10/2017	0.887	0.612					
6/11/2018							0.9
6/12/2018				1.6	2.8	2.9	
6/13/2018	0.86	0.67	2.2				
10/2/2018	0.93	0.62	1.9	1.4			0.81
10/3/2018					2.3	2.4	
4/1/2019			2.4	1.4	2.7		0.85
4/2/2019	0.9	0.63				2.9	
9/25/2019	0.86	0.63					0.73
9/26/2019				1.9	1.5	2.8	2.5
3/19/2020		0.73				2.4	2.5
3/20/2020	0.94		2.1	1.4			0.8

## Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		<0.0025	<0.0025				<0.0025
6/2/2016	<0.0025				<0.0025	<0.0025	
7/25/2016			<0.0025		<0.0025		<0.0025
7/26/2016	<0.0025	<0.0025				<0.0025	
9/13/2016		<0.0025	<0.0025				
9/14/2016				<0.0025			<0.0025
9/15/2016	<0.0025					<0.0025	
9/19/2016					<0.0025		
11/1/2016		<0.0025			<0.0025	<0.0025	
11/2/2016	<0.0025						<0.0025
11/4/2016			<0.0025	<0.0025			
12/15/2016				<0.0025			
1/10/2017	<0.0025						
1/11/2017		0.0002 (J)				0.0001 (J)	8E-05 (J)
1/16/2017			<0.0025	<0.0025	<0.0025		
2/21/2017					<0.0025		
3/1/2017							<0.0025
3/2/2017		<0.0025	<0.0025			<0.0025	
3/3/2017				<0.0025			
3/8/2017	7E-05 (J)						
4/26/2017	<0.0025				<0.0025	<0.0025	<0.0025
4/27/2017		<0.0025	<0.0025				
4/28/2017				<0.0025			
5/26/2017				<0.0025			
6/27/2017		<0.0025	<0.0025				
6/28/2017				<0.0025		<0.0025	<0.0025
6/30/2017	<0.0025				<0.0025		
3/27/2018	<0.0025		<0.0025		<0.0025		
3/28/2018				<0.0025		<0.0025	<0.0025
3/29/2018		<0.0025					
2/26/2019	<0.0025				<0.0025		
2/27/2019		<0.0025	<0.0025	<0.0025		<0.0025	<0.0025
3/28/2019		<0.0025	<0.0025				
3/29/2019	<0.0025			<0.0025			
4/1/2019					<0.0025	<0.0025	<0.0025
9/24/2019		<0.0025	<0.0025	<0.0025			
9/25/2019	<0.0025				<0.0025	<0.0025	<0.0025
2/10/2020		<0.0025	<0.0025				
2/11/2020				<0.0025			<0.0025
2/12/2020	<0.0025				<0.0025	<0.0025	
3/18/2020	<0.0025		<0.0025				
3/19/2020		<0.0025		<0.0025	<0.0025	<0.0025	<0.0025

## Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	<0.0025	<0.0025	<0.0025			
6/9/2016					0.00055 (J)	<0.0025	<0.0025
8/1/2016	<0.0025	<0.0025	<0.0025	<0.0025			
8/2/2016					0.0001 (J)	<0.0025	0.0001 (J)
9/20/2016	<0.0025	<0.0025	<0.0025	<0.0025			
9/21/2016					0.0001 (J)	<0.0025	0.0002 (J)
11/7/2016	<0.0025	<0.0025	<0.0025	<0.0025		<0.0025	0.0002 (J)
11/8/2016					9E-05 (J)		
1/18/2017	<0.0025	<0.0025	<0.0025		9E-05 (J)	<0.0025	
1/19/2017					<0.0025		0.0001 (J)
2/21/2017	<0.0025	<0.0025				<0.0025	
2/22/2017					<0.0025		0.0001 (J)
2/23/2017			<0.0025				
5/3/2017		<0.0025			9E-05 (J)	<0.0025	
5/5/2017							
5/8/2017	<0.0025		<0.0025	<0.0025			0.0002 (J)
6/30/2017			<0.0025	<0.0025			
7/5/2017					0.0002 (J)		0.0002 (J)
7/7/2017						<0.0025	
7/10/2017	<0.0025	<0.0025					
3/29/2018			<0.0025	<0.0025			<0.0025
3/30/2018	<0.0025	<0.0025			<0.0025	<0.0025	
2/27/2019	<0.0025	<0.0025	<0.0025	<0.0025	0.00014 (J)	<0.0025	0.00026 (J)
4/1/2019			<0.0025	<0.0025	0.00043 (J)		0.00022 (J)
4/2/2019	<0.0025	<0.0025				<0.0025	
9/25/2019	<0.0025	<0.0025					0.00024 (J)
9/26/2019			<0.0025	<0.0025	<0.0025	<0.0025	
2/13/2020	<0.0025	<0.0025	<0.0025	<0.0025	0.00013 (J)	<0.0025	0.00018 (J)
3/19/2020			<0.0025		0.00016 (J)	<0.0025	
3/20/2020	<0.0025		<0.0025	<0.0025			0.00022 (J)

## Time Series

Constituent: Calcium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		12	2.5		1.3	28	21
6/2/2016	1.3			2.16	1.17		20.3
7/25/2016						24.5	
7/26/2016	1.24	11					
9/13/2016		11.8	2.21		23.5		19.7
9/14/2016						27	
9/15/2016	1.17				1.05		
9/19/2016						25.6	
11/1/2016		11			1.14	25.6	18.4
11/2/2016	1.23						
11/4/2016			2.67	23.7			
12/15/2016				23.1			
1/10/2017	1.24						
1/11/2017		11.2				27.5	20.3
1/16/2017			2.45	23.3	1.23		
2/21/2017					1.25		
3/1/2017							18.6
3/2/2017		11	2.57			27.5	
3/3/2017				25.1			
3/8/2017	1.21						
4/26/2017	1.14				1.03	30.4	25.6
4/27/2017		11.1	2.38				
4/28/2017				30.7			
5/26/2017				26.2			
6/27/2017		13.8	2.36				
6/28/2017				26.1		29.8	23.9
6/30/2017	1.24				1.13		
10/3/2017		14	2.21	26.7			
10/4/2017					1.09	29.7	22.1
10/5/2017	1.11						
6/5/2018		15.2 (J)					
6/6/2018			2.3				
6/7/2018				25		29.1	
6/8/2018	1.1						21.9 (J)
6/11/2018					1.1		
10/1/2018	0.99	15.1	1.8	25		26.9	19.7
10/2/2018					1.1		
3/28/2019		13.3 (J)	2.2				
3/29/2019	1.1			23.5 (J)			
4/1/2019					1.3	30.1	20.4 (J)
9/24/2019		15.8	2.3	26.4			
9/25/2019	1.1				1.1	29.5	22.4
3/18/2020	1.1		2.1				
3/19/2020		15		27.4	1.2	31.5	21.9

## Time Series

Constituent: Calcium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	15	13	25	44			
6/9/2016					36	26	12
8/1/2016	14.5	12.2	21.4	36.3			
8/2/2016					35.5	25.8	11.7
9/20/2016	15.3	12.2	26.3	39.5			
9/21/2016					33.2	24.9	11.1
11/7/2016	13.8	12.1	26.1	34.9		25.1	11.4
11/8/2016					33.8		
1/18/2017	15.1	11.5	25.6		33.4	26.1	
1/19/2017				37			12
2/21/2017	14.6	11.7				29	
2/22/2017				37.6	33.8		11.2
2/23/2017			28.2				
5/3/2017		11.9			33.5	28.1	
5/5/2017							
5/8/2017	15.2		27.2	35.7			11.2
6/30/2017			27.2	36.2			
7/5/2017					33.4		11.9
7/7/2017						28.6	
7/10/2017	17.4	12.7			36.4		12
10/5/2017				39.8			
10/6/2017			27.3			27.3	
10/9/2017							
10/10/2017	15.5	11.4					
6/11/2018							12.1
6/12/2018				36.2	33.4	26.4	
6/13/2018	15.5	12.5	29.4				
10/2/2018	14.7	12.4 (J)	29.2	39.1			11.7 (J)
10/3/2018					32.6	25.8	
4/1/2019			27.4	38	33.8		11.9 (J)
4/2/2019	16.1 (J)	11.9 (J)				25.7	
9/25/2019	15.6	11.6					10.7
9/26/2019			24.2	37.5	32	26.1	
3/19/2020		13			37.3	30.4	
3/20/2020	17.1		30.3	42.1			12.7

## Time Series

Constituent: Chloride (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		1.3	1.6		1.9	1.4	1.3
6/2/2016	4.1						
7/25/2016			1.4		1.7		1.3
7/26/2016	4	1.2				1.6	
9/13/2016		1.1	1.3				
9/14/2016			1.1				1.3
9/15/2016	4.2					1.5	
9/19/2016					1.6		
11/1/2016		1.3			1.8	1.7	1.4
11/2/2016	4.9						
11/4/2016			1.6	1.4			
12/15/2016			2.9				
1/10/2017	4.1						
1/11/2017		1.1				1.2	1.1
1/16/2017			1.4	0.98	1.7		
2/21/2017					1.7		
3/1/2017							1.1
3/2/2017		1	1.3			1.2	
3/3/2017				1.1			
3/8/2017	4.2						
4/26/2017	4.1				1.7	1.2	1.1
4/27/2017		1	1.3				
4/28/2017				0.91			
5/26/2017				0.93			
6/27/2017		1.1	1.4				
6/28/2017				1		1.3	1.2
6/30/2017	3.7				1.8		
10/3/2017		1.1	1.7	1.2			
10/4/2017					1.8	1.5	1.2
10/5/2017	3.8						
6/5/2018		1.1					
6/6/2018			1.4				
6/7/2018				1		1.2	
6/8/2018	3.4						1.2
6/11/2018					2		
10/1/2018	3.8	1.1	1.4	1.1		1.5	1.2
10/2/2018					1.8		
3/28/2019		1.4	1.5				
3/29/2019	4.2			1.2			
4/1/2019					1.7	1.2	1.1
9/24/2019		1.1	1.3	0.95 (J)			
9/25/2019	4.8				1.6	1.1	1.1
3/18/2020	5.2		1.4				
3/19/2020		1.1		0.97 (J)	1.8	1.2	1.1

## Time Series

Constituent: Chloride (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	19	18	14	22			
6/9/2016					18	19	15
8/1/2016	17	16	13	21			
8/2/2016					18	18	14
9/20/2016	18	18	13	22			
9/21/2016					18	19	14
11/7/2016	17	16	14	24		20	14
11/8/2016					18		
1/18/2017	19	17	14		18	20	
1/19/2017				22			14
2/21/2017	18	16				19	
2/22/2017				21	18		13
2/23/2017			14				
5/3/2017		17			19	21	
5/5/2017							
5/8/2017	18		14	22			15
6/30/2017			14	21			
7/5/2017					18		14
7/7/2017						20	
7/10/2017	19	15					
10/5/2017					19		15
10/6/2017				21			
10/9/2017			14			20	
10/10/2017	19	15					
6/11/2018							13.6
6/12/2018				19.8	17.6	19.3	
6/13/2018	18.1	14.2	13.1				
10/2/2018	18.3	14	13.8	19.9			13.4
10/3/2018					17.7	20.2	
4/1/2019			14.2	19.7	17.2		13.1
4/2/2019	17.9	13.5				19.5	
9/25/2019	17.1	14.4					11.3
9/26/2019			14.3	19.6	17.3	19.5	
3/19/2020		15.4			16	18.1	
3/20/2020	17.7		13	17.7			11.3

## Time Series

Constituent: Chromium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		0.0035	<0.01		<0.01		<0.01
6/2/2016	<0.01				<0.01	0.0013 (J)	
7/25/2016			<0.01 (*)		<0.01		<0.01 (*)
7/26/2016	<0.01		<0.01 (*)			<0.01 (*)	
9/13/2016			<0.01	<0.01			
9/14/2016				<0.01			<0.01
9/15/2016	<0.01					<0.01	
9/19/2016					<0.01		
11/1/2016		<0.01			<0.01	<0.01	<0.01
11/2/2016	<0.01						
11/4/2016			<0.01	<0.01			
12/15/2016				<0.01			
1/10/2017	<0.01						
1/11/2017		<0.01				<0.01	<0.01
1/16/2017			<0.01	<0.01	<0.01		
2/21/2017					<0.01		
3/1/2017						0.0004 (J)	
3/2/2017		0.0009 (J)	0.0004 (J)			0.0006 (J)	
3/3/2017				0.0005 (J)			
3/8/2017	<0.01 (*)						
4/26/2017	<0.01				0.0016 (J)	<0.01	<0.01
4/27/2017		<0.01	<0.01				
4/28/2017				0.0004 (J)			
5/26/2017				<0.01			
6/27/2017		<0.01	<0.01				
6/28/2017				<0.01		<0.01	<0.01
6/30/2017	<0.01				<0.01		
3/27/2018	<0.01		<0.01		<0.01		
3/28/2018				<0.01		<0.01	<0.01
3/29/2018		<0.01					
2/26/2019	<0.01				<0.01		
2/27/2019		<0.01	<0.01	<0.01		<0.01	<0.01
3/28/2019		<0.01	0.0021 (J)				
3/29/2019	<0.01			<0.01			
4/1/2019					<0.01	<0.01	<0.01
9/24/2019		0.00072 (J)	0.0028 (J)	<0.01			
9/25/2019	<0.01				<0.01	0.0014 (J)	0.0019 (J)
2/10/2020		0.00042 (J)	<0.01				
2/11/2020				<0.01			<0.01
2/12/2020	<0.01				<0.01	<0.01	
3/18/2020	<0.01		0.00044 (J)				
3/19/2020		0.00084 (J)		0.00048 (J)	<0.01	<0.01	<0.01

## Time Series

Constituent: Chromium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.01	<0.01	<0.01	<0.01			
6/9/2016					<0.01	<0.01	<0.01
8/1/2016	0.0008 (J)	0.0026 (J)	<0.01	<0.01			
8/2/2016					0.0005 (J)	0.0005 (J)	0.0005 (J)
9/20/2016	<0.01	0.001 (J)	<0.01	<0.01			
9/21/2016					<0.01	<0.01	<0.01
11/7/2016	<0.01	0.0013 (J)	<0.01	<0.01			
11/8/2016					<0.01		
1/18/2017	<0.01	0.002 (J)	<0.01		<0.01	<0.01	
1/19/2017					<0.01		<0.01
2/21/2017	<0.01	0.0019 (J)				<0.01	
2/22/2017					<0.01		<0.01
2/23/2017			<0.01				
5/3/2017		0.0037 (J)			<0.01	<0.01	
5/5/2017					<0.01		
5/8/2017	0.0006 (J)		<0.01	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					<0.01		<0.01
7/7/2017						<0.01	
7/10/2017	<0.01 (*)	<0.01 (*)					
3/29/2018			<0.01	<0.01			<0.01
3/30/2018	<0.01	<0.01			<0.01	<0.01	
2/27/2019	0.0049 (J)	0.0055 (J)	<0.01	0.015	<0.01	<0.01	<0.01
4/1/2019			<0.01	<0.01	<0.01		<0.01
4/2/2019	<0.01	0.003 (J)				<0.01	
9/25/2019	0.00048 (J)	0.0012 (J)					<0.01
9/26/2019			<0.01	<0.01	0.00044 (J)	<0.01	
2/13/2020	0.00044 (J)	0.0012 (J)	<0.01	<0.01	0.00047 (J)	<0.01	<0.01
3/19/2020		0.0018 (J)			<0.01	0.00049 (J)	
3/20/2020	0.0009 (J)		<0.01	0.0005 (J)			<0.01

## Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		<0.005	0.00082 (J)		0.035	<0.005	<0.005
6/2/2016	<0.005		0.0008 (J)		0.0312		<0.005
7/25/2016			0.0009 (J)			<0.005	
7/26/2016	<0.005	<0.005				<0.005	
9/13/2016		<0.005	0.0009 (J)		<0.005		
9/14/2016				<0.005			<0.005
9/15/2016	<0.005					<0.005	
9/19/2016					0.0275		
11/1/2016		<0.005			0.0255	<0.005	<0.005
11/2/2016	<0.005						
11/4/2016			0.0025 (J)	<0.005			
12/15/2016				<0.005			
1/10/2017	<0.005						
1/11/2017		<0.005				<0.005	
1/16/2017			0.0027 (J)	<0.005	0.0245		
2/21/2017					0.0272		
3/1/2017						<0.005	
3/2/2017		<0.005	0.0022 (J)			<0.005	
3/3/2017				<0.005			
3/8/2017	<0.005						
4/26/2017	<0.005				0.0244	<0.005	<0.005
4/27/2017		<0.005	0.0018 (J)				
4/28/2017				<0.005			
5/26/2017				<0.005			
6/27/2017		<0.005	0.0023 (J)				
6/28/2017				<0.005		<0.005	<0.005
6/30/2017	<0.005				0.0233		
3/27/2018	<0.005		<0.005		0.023		
3/28/2018				<0.005		<0.005	<0.005
3/29/2018		<0.005					
6/5/2018	<0.005						
6/6/2018			<0.005				
6/7/2018				<0.005		<0.005	
6/8/2018	<0.005						<0.005
6/11/2018					0.023		
10/1/2018	<0.005	<0.005	0.00059 (J)	<0.005		<0.005	<0.005
10/2/2018					0.022		
2/26/2019	<0.005				0.021		
2/27/2019		<0.005	0.00064 (J)	<0.005		<0.005	<0.005
3/28/2019		<0.005	0.00091 (J)				
3/29/2019	<0.005			<0.005			
4/1/2019					0.022	<0.005	<0.005
9/24/2019		<0.005	0.0013 (J)	<0.005			
9/25/2019	<0.005				0.016	<0.005	<0.005
2/10/2020		<0.005	0.0016 (J)				
2/11/2020				<0.005			<0.005
2/12/2020	<0.005				0.014	<0.005	
3/18/2020	<0.005		0.00087 (J)		<0.005	0.014	<0.005
3/19/2020		<0.005		<0.005		<0.005	

## Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.005	0.0032	0.0016 (J)	0.0024 (J)			
6/9/2016					0.00042 (J)	0.00085 (J)	0.00052 (J)
8/1/2016	<0.005	0.003 (J)	0.0014 (J)	0.0026 (J)			
8/2/2016					<0.005	0.0008 (J)	0.0006 (J)
9/20/2016	<0.005	0.003 (J)	0.002 (J)	0.0026 (J)			
9/21/2016					<0.005	0.0008 (J)	0.0007 (J)
11/7/2016	<0.005	0.0025 (J)	0.0016 (J)	0.0025 (J)		0.001 (J)	<0.005
11/8/2016					<0.005		
1/18/2017	<0.005	0.0022 (J)	0.0017 (J)		<0.005	0.001 (J)	
1/19/2017				0.0024 (J)			<0.005
2/21/2017	<0.005	0.0022 (J)				0.0011 (J)	
2/22/2017				0.0023 (J)	<0.005		<0.005
2/23/2017			0.002 (J)				
5/3/2017		0.002 (J)			<0.005	0.0012 (J)	
5/5/2017							
5/8/2017	<0.005		0.0029 (J)	0.0023 (J)			<0.005
6/30/2017			0.0044 (J)	0.0022 (J)			
7/5/2017					<0.005		0.0003 (J)
7/7/2017						0.0012 (J)	
7/10/2017	<0.005	0.002 (J)					
3/29/2018			0.0495 (D)	<0.005			<0.005
3/30/2018	<0.005	<0.005			<0.005	<0.005	
6/11/2018							<0.005
6/12/2018				0.0025 (J)	<0.005	0.0011 (J)	
6/13/2018	<0.005	0.0017 (J)	0.092				
10/2/2018	<0.005	0.002 (J)	0.078	0.0023 (J)			<0.005
10/3/2018					<0.005	0.0013 (J)	
2/27/2019	<0.005	0.0017 (J)	0.035	0.0024 (J)	<0.005	0.00093 (J)	<0.005
4/1/2019			0.025	0.0023 (J)	<0.005		<0.005
4/2/2019	<0.005	0.0022 (J)				0.0011 (J)	
9/25/2019	<0.005	0.0033 (J)					<0.005
9/26/2019			0.014	0.0021 (J)	<0.005	0.00098 (J)	
2/13/2020	<0.005	0.0019 (J)	0.012	0.0026 (J)	<0.005	0.00092 (J)	<0.005
3/19/2020			0.0021 (J)		<0.005	0.00093 (J)	
3/20/2020	<0.005		0.014	0.0022 (J)			<0.005

## Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		0.321 (U)	0.42				0.896
6/2/2016	0.329 (U)				0.0652 (U)	2.51	
7/25/2016			1.83		3.01		2.28
7/26/2016	1.51	0.707 (U)				3.82	
9/13/2016		1.22	0.841				
9/14/2016				0.98 (U)			0.821 (U)
9/15/2016	1.04 (U)					4.24	
9/19/2016					0.871 (U)		
11/1/2016		0.805 (U)			0.307 (U)	3.92	0.585 (U)
11/2/2016	0.496 (U)						
11/4/2016			0.166 (U)	0.277 (U)			
12/15/2016				0.071 (U)			
1/10/2017	0.376 (U)						
1/11/2017		0.705 (U)				2.52	1.22
1/16/2017			0	0.44 (U)	0.284 (U)		
2/21/2017					0.503 (U)		
3/1/2017							0.877 (U)
3/2/2017		0.251 (U)	0.504 (U)				3.13
3/3/2017				0.448 (U)			
3/8/2017	0.0745 (U)						
4/26/2017	0.282 (U)				0.204 (U)	2.35	0.672 (U)
4/27/2017		1.08	0.593 (U)				
4/28/2017				0.548 (U)			
5/26/2017				0 (U)			
6/27/2017		1.02 (U)	0.657 (U)				
6/28/2017				0.608 (U)		2.6	1.07 (U)
6/30/2017	0.994				0.738 (U)		
3/27/2018	0.189 (U)		0.39 (U)		0.31 (U)		
3/28/2018				0.412 (U)		3	0.65 (U)
3/29/2018		0.503 (U)					
6/5/2018		0.771 (U)					
6/6/2018			2.8				
6/7/2018				0.73 (U)		2.79	
6/8/2018	0.218 (U)						1.89
6/11/2018					0.608 (U)		
10/1/2018	1.24	0.783 (U)	1.06 (U)	0.756 (U)		3.14	1.58
10/2/2018					0.97 (U)		
2/26/2019	0.202 (U)				0.524 (U)		
2/27/2019		1.21 (U)	0.637 (U)	0.635 (U)		3.79	3.67
3/28/2019		1.13 (U)	0.125 (U)				
3/29/2019	0 (U)			0.224 (U)			
4/1/2019					1.02 (U)	4.33	2.28
9/24/2019		1.22 (U)	0.949 (U)	0.429 (U)			
9/25/2019	0.707 (U)				1.02 (U)	4.2	1.6
2/10/2020		1.41	1.25 (U)				
2/11/2020				0.817 (U)		3.87	1.85
2/12/2020	1.07 (U)				0.301 (U)		
3/18/2020	0.207 (U)		0.458 (U)				
3/19/2020		1.1		0.715 (U)	1	3.96	2.2

## Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	6.68 (o)	0.677	1.81	0.257 (U)			
6/9/2016					0.194 (U)	0.715	0.523
8/1/2016	0.606 (U)	0.457 (U)	3.79	0.453 (U)			
8/2/2016					0.331 (U)	0.526 (U)	1.25
9/20/2016	0.565 (U)	0.555 (U)	3.12	1.27			
9/21/2016					0.335 (U)	0.176 (U)	1.21 (U)
11/7/2016	0.773 (U)	0.647 (U)	2.66	0.877 (U)		0.609 (U)	1.16
11/8/2016					0.245 (U)		
1/18/2017	0.263 (U)	0.6 (U)	3.44		0.261 (U)	0.0752 (U)	
1/19/2017				0.764 (U)			0.933 (U)
2/21/2017	1.06 (U)	1.11 (U)				0.404 (U)	
2/22/2017				1.26 (U)	0.516 (U)		1.45 (U)
2/23/2017			4.73				
5/3/2017		0.654 (U)			0.713 (U)	0.868 (U)	
5/5/2017							
5/8/2017	0.291 (U)		3.87	0.789 (U)			0.21 (U)
6/30/2017			2.85	0.592 (U)			
7/5/2017					0.292 (U)		0.62 (U)
7/7/2017						1.29	
7/10/2017	0.912	0.649 (U)					
3/29/2018			1.41	0.916 (U)			1.37
3/30/2018	0.23 (U)	0.501 (U)			0.948 (U)	0.195 (U)	
6/11/2018							1.27 (U)
6/12/2018				0.666 (U)	0.869 (U)	1.02 (U)	
6/13/2018	0.427 (U)	1.09 (U)	3.69				
10/2/2018	1.41 (U)	0.747 (U)	4.5	0.774 (U)			0.442 (U)
10/3/2018					0.864 (U)	0.713 (U)	
2/27/2019	0.614 (U)	1.27	4.69	1.19	0.947 (U)	0.543 (U)	0.902 (U)
4/1/2019			5	0.777 (U)	0.162 (U)		0.584 (U)
4/2/2019	0.84 (U)	0.708 (U)				0.521 (U)	
9/25/2019	1.01 (U)	1.18 (U)					1.03 (U)
9/26/2019			3.37	1.01 (U)	1.06 (U)	1.16	
2/13/2020	1.86	0.178 (U)	4.48	0.961 (U)	1.12 (U)	1.04	0.806 (U)
3/19/2020					0.913 (U)	1.01 (U)	
3/20/2020	2.03		4.13	1.5			1.42

## Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		0.12 (J)	<0.3		<0.3	0.62	0.15 (J)
6/2/2016	<0.3						
7/25/2016			0.06 (J)		0.06 (J)		0.14 (J)
7/26/2016	0.02 (J)	0.08 (J)				0.49	
9/13/2016		0.11 (J)	<0.3				
9/14/2016				0.08 (J)			0.18 (J)
9/15/2016	<0.3					0.54	
9/19/2016					<0.3		
11/1/2016		<0.3 (*)			<0.3 (*)	0.68	<0.3 (*)
11/2/2016	<0.3 (*)						
11/4/2016			<0.3 (*)	<0.3 (*)			
12/15/2016				0.06 (J)			
1/10/2017	<0.3						
1/11/2017		0.05 (J)				0.49	0.09 (J)
1/16/2017			<0.3 (*)	0.1 (J)	<0.3		
2/21/2017					<0.3 (*)		
3/1/2017							<0.3 (*)
3/2/2017		<0.3 (*)	<0.3 (*)			0.48	
3/3/2017				<0.3 (*)			
3/8/2017	<0.3 (*)						
4/26/2017	<0.3				<0.3	0.48	0.08 (J)
4/27/2017		0.04 (J)	0.01 (J)				
4/28/2017				0.06 (J)			
5/26/2017				0.09 (J)			
6/27/2017		<0.3 (*)	<0.3 (*)				
6/28/2017				0.11 (J)		0.47	0.12 (J)
6/30/2017	<0.3				<0.3 (*)		
10/3/2017		<0.3 (*)	<0.3	<0.3 (*)			
10/4/2017					<0.3	<0.3 (*)	<0.3 (*)
10/5/2017	<0.3						
3/27/2018	<0.3		<0.3		<0.3		
3/28/2018				0.31		0.56	<0.3
3/29/2018		<0.3					
6/5/2018		0.055 (J)					
6/6/2018			<0.3				
6/7/2018				0.11 (J)		0.48	
6/8/2018	<0.3						0.2 (J)
6/11/2018					<0.3		
10/1/2018	<0.3	<0.3	<0.3	<0.3		0.44	<0.3
10/2/2018					<0.3		
2/26/2019	<0.3				<0.3		
2/27/2019		0.052 (J)	<0.3	0.12 (J)		0.53	0.13 (J)
3/28/2019		0.036 (J)	<0.3				
3/29/2019	<0.3			0.13 (J)			
4/1/2019					<0.3	0.45	0.1 (J)
9/24/2019		0.063 (J)	<0.3	0.081 (J)			
9/25/2019	<0.3				<0.3	0.46	0.1 (J)
2/10/2020		0.061 (J)	<0.3				
2/11/2020				0.075 (J)			0.094 (J)
2/12/2020	<0.3				<0.3	0.4	
3/18/2020	<0.3		<0.3				
3/19/2020		0.064 (J)		0.093 (J)	<0.3	0.51	0.11 (J)

## Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.094 (J)	<0.3	0.086 (J)	0.12 (J)			
6/9/2016					0.098 (J)	0.16 (J)	0.085 (J)
8/1/2016	0.08 (J)	0.24 (J)	0.14 (J)	0.22 (J)			
8/2/2016					0.38	0.5	0.09 (J)
9/20/2016	0.05 (J)	0.03 (J)	<0.3	0.32			
9/21/2016					0.08 (J)	0.25 (J)	0.09 (J)
11/7/2016	<0.3 (*)	0.44	<0.3 (*)	<0.3 (*)		0.27 (J)	<0.3 (*)
11/8/2016					0.24 (J)		
1/18/2017	0.11 (J)	<0.3 (*)	<0.3 (*)		0.12 (J)	0.34	
1/19/2017					0.25 (J)		<0.3 (*)
2/21/2017	<0.3 (*)	<0.3 (*)				0.27 (J)	
2/22/2017					0.21 (J)	<0.3 (*)	
2/23/2017			<0.3 (*)				
5/3/2017		0.16 (J)					
5/5/2017					0.08 (J)	0.2 (J)	
5/8/2017	0.08 (J)		0.07 (J)	0.19 (J)			0.06 (J)
6/30/2017			<0.3 (*)	0.2 (J)			
7/5/2017					0.11 (J)		0.08 (J)
7/7/2017						0.18 (J)	
7/10/2017	<0.3 (*)	<0.3 (*)					
10/5/2017					<0.3 (*)		<0.3 (*)
10/6/2017					<0.3 (*)		
10/9/2017			<0.3 (*)				<0.3 (*)
10/10/2017	<0.3	<0.3					
3/29/2018				0.49			<0.3
3/30/2018	<0.3	0.35			<0.3	<0.3	
6/11/2018							<0.3
6/12/2018				0.037 (J)	<0.3	0.13 (J)	
6/13/2018	0.088 (J)	0.044 (J)	<0.3				
10/2/2018	<0.3	<0.3	<0.3	<0.3			<0.3
10/3/2018					<0.3	0.31	
2/27/2019	<0.3	<0.3	<0.3	0.14 (J)	0.14 (J)	0.22 (J)	0.15 (J)
4/1/2019				0.034 (J)	0.088 (J)	0.078 (J)	0.059 (J)
4/2/2019	0.071 (J)	<0.3				0.14 (J)	
9/25/2019	0.064 (J)	<0.3					0.054 (J)
9/26/2019				0.14 (J)	0.22 (J)	0.29 (J)	0.28 (J)
2/13/2020	<0.3	<0.3	<0.3	0.11 (J)	0.14 (J)	0.18 (J)	0.053 (J)
3/19/2020						0.07 (J)	0.16 (J)
3/20/2020	0.06 (J)		<0.3	0.097 (J)			0.057 (J)

## Time Series

Constituent: Lead (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		0.00056 (J)	<0.005				<0.005
6/2/2016	<0.005				<0.005	0.00056 (J)	
7/25/2016			<0.005		<0.005		<0.005
7/26/2016	<0.005	<0.005				0.0001 (J)	
9/13/2016		0.0001 (J)	<0.005				
9/14/2016				<0.005			<0.005
9/15/2016	<0.005					0.0002 (J)	
9/19/2016					<0.005		
11/1/2016		<0.005			<0.005	<0.005	
11/2/2016	<0.005						
11/4/2016			<0.005	<0.005			
12/15/2016				<0.005			
1/10/2017	<0.005						
1/11/2017		<0.005				<0.005	
1/16/2017			<0.005	<0.005	<0.005		
2/21/2017					<0.005		
3/1/2017							<0.005
3/2/2017		0.0001 (J)	<0.005			0.0002 (J)	
3/3/2017				<0.005			
3/8/2017	0.0001 (J)						
4/26/2017	<0.005				<0.005	<0.005	<0.005
4/27/2017		<0.005	<0.005				
4/28/2017				<0.005			
5/26/2017				<0.005			
6/27/2017		<0.005	<0.005				
6/28/2017				<0.005		<0.005	<0.005
6/30/2017	<0.005				<0.005		
3/27/2018	<0.005		<0.005		<0.005		
3/28/2018				<0.005		<0.005	<0.005
3/29/2018		<0.005					
2/26/2019	<0.005				<0.005		
2/27/2019		<0.005	<0.005	<0.005		<0.005	<0.005
2/10/2020		4.9E-05 (J)	<0.005				
2/11/2020				<0.005			<0.005
2/12/2020	<0.005				<0.005	<0.005	
3/18/2020	<0.005		<0.005				
3/19/2020		0.00012 (J)		<0.005	<0.005	0.00017 (J)	<0.005

## Time Series

Constituent: Lead (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.005	<0.005	<0.005	<0.005 (*)			
6/9/2016					<0.005	<0.005	<0.005
8/1/2016	<0.005	<0.005	<0.005	<0.005			
8/2/2016					<0.005	<0.005	<0.005
9/20/2016	<0.005	<0.005	<0.005	0.0002 (J)			
9/21/2016					<0.005	<0.005	<0.005
11/7/2016	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
11/8/2016					<0.005		
1/18/2017	<0.005	<0.005	<0.005		<0.005	<0.005	
1/19/2017					<0.005		<0.005
2/21/2017	<0.005	<0.005				<0.005	
2/22/2017					<0.005		<0.005
2/23/2017			<0.005				
5/3/2017		<0.005 (*)			<0.005	<0.005 (*)	
5/5/2017							
5/8/2017	<0.005		<0.005	<0.005			<0.005
6/30/2017			<0.005	<0.005			
7/5/2017					<0.005		<0.005
7/7/2017						7E-05 (J)	
7/10/2017	<0.005	8E-05 (J)					
3/29/2018			<0.005	<0.005			<0.005
3/30/2018	<0.005	<0.005			<0.005	<0.005	
2/27/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2/13/2020	<0.005	<0.005	<0.005	6.2E-05 (J)	<0.005	5.4E-05 (J)	<0.005
3/19/2020		0.0001 (J)			<0.005	7.5E-05 (J)	
3/20/2020	5.9E-05 (J)		<0.005	8.5E-05 (J)			<0.005

## Time Series

Constituent: Lithium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		0.015	<0.03				0.01
6/2/2016	<0.03				<0.03	0.018	
7/25/2016			0.002 (J)		<0.03		0.0132 (J)
7/26/2016	<0.03	0.0135 (J)				0.0221 (J)	
9/13/2016		0.0112 (J)	<0.03				
9/14/2016				0.004 (J)			0.012 (J)
9/15/2016	<0.03					0.0197 (J)	
9/19/2016					<0.03		
11/1/2016		0.0163 (J)			<0.03	0.0194 (J)	0.0115 (J)
11/2/2016	<0.03						
11/4/2016			<0.03	<0.03			
12/15/2016				0.0026 (J)			
1/10/2017	<0.03						
1/11/2017		0.0166 (J)				0.0177 (J)	0.0085 (J)
1/16/2017			0.0023 (J)	0.0023 (J)	<0.03		
2/21/2017					<0.03		
3/1/2017							0.0114 (J)
3/2/2017		0.0159 (J)	0.0025 (J)			0.0185 (J)	
3/3/2017				0.0013 (J)			
3/8/2017	<0.03						
4/26/2017	<0.03				<0.03	0.0183 (J)	0.0092 (J)
4/27/2017		0.0137 (J)	0.0027 (J)				
4/28/2017				0.0031 (J)			
5/26/2017				0.0038 (J)			
6/27/2017		0.0094 (J)	0.0024 (J)				
6/28/2017				0.0026 (J)		0.0173 (J)	0.0085 (J)
6/30/2017	<0.03				<0.03		
3/27/2018	<0.03		0.0023 (J)		0.0011 (J)		
3/28/2018				0.0025 (J)		0.02 (J)	0.013 (J)
3/29/2018		0.0078 (J)					
6/5/2018		0.0079 (J)					
6/6/2018			0.0024 (J)				
6/7/2018				0.0017 (J)		0.02 (J)	
6/8/2018	<0.03						0.012 (J)
6/11/2018					0.0012 (J)		
10/1/2018	<0.03	0.0053 (J)	0.0023 (J)	<0.03		0.02 (J)	0.011 (J)
10/2/2018					<0.03		
2/26/2019	<0.03				0.0011 (J)		
2/27/2019		0.0093 (J)	0.0023 (J)	0.0011 (J)		0.021 (J)	0.014 (J)
3/28/2019		0.013 (J)	0.0022 (J)				
3/29/2019	<0.03			0.0016 (J)			
4/1/2019					0.001 (J)	0.021 (J)	0.013 (J)
9/24/2019		0.0046 (J)	0.0023 (J)	0.0011 (J)			
9/25/2019	<0.03				0.0011 (J)	0.02 (J)	0.01 (J)
2/10/2020		0.011 (J)	0.0023 (J)		0.0012 (J)		
2/11/2020							0.013 (J)
2/12/2020	<0.03				0.0013 (J)	0.019 (J)	
3/18/2020	<0.03		0.0024 (J)				
3/19/2020		0.013 (J)		0.0022 (J)	0.0012 (J)	0.023 (J)	0.014 (J)

## Time Series

Constituent: Lithium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.007	<0.03		0.0067	<0.03		
6/9/2016					0.0073	<0.03	0.0075
8/1/2016	0.0068 (J)	<0.03		0.008 (J)	<0.03		
8/2/2016					0.0073 (J)	<0.03	0.0078 (J)
9/20/2016	0.0062 (J)	<0.03		0.0111 (J)	<0.03		
9/21/2016					0.0067 (J)	<0.03	0.0074 (J)
11/7/2016	0.0057 (J)	<0.03		0.0097 (J)	<0.03		
11/8/2016					0.0072 (J)		
1/18/2017	0.0066 (J)	<0.03		0.01 (J)		0.0067 (J)	<0.03
1/19/2017					<0.03		0.0055 (J)
2/21/2017	0.0067 (J)	<0.03				<0.03	
2/22/2017					<0.03	0.0064 (J)	
2/23/2017				0.0099 (J)			0.0063 (J)
5/3/2017		<0.03					
5/5/2017					0.007 (J)	<0.03	
5/8/2017	0.007 (J)			0.0086 (J)	<0.03		0.0066 (J)
6/30/2017				0.0108 (J)	<0.03		
7/5/2017					0.0072 (J)		0.0058 (J)
7/7/2017						<0.03	
7/10/2017	0.0064 (J)	<0.03					
3/29/2018				0.011 (J)	<0.03		0.0049 (J)
3/30/2018	0.0068 (J)	<0.03				0.007 (J)	<0.03
6/11/2018							0.0064 (J)
6/12/2018					<0.03	0.0073 (J)	<0.03
6/13/2018	0.0071 (J)	<0.03		0.014 (J)			
10/2/2018	0.0064 (J)	<0.03		0.012 (J)	<0.03		
10/3/2018						0.0069 (J)	<0.03
2/27/2019	0.0069 (J)	<0.03		0.0096 (J)	<0.03	0.0063 (J)	<0.03
4/1/2019				0.0082 (J)	<0.03	0.0065 (J)	
4/2/2019	0.0064 (J)	<0.03				<0.03	
9/25/2019	0.0073 (J)	<0.03					0.0057 (J)
9/26/2019				0.0075 (J)	<0.03	0.0064 (J)	<0.03
2/13/2020	0.0073 (J)	<0.03		0.0079 (J)	<0.03	0.0069 (J)	<0.03
3/19/2020		<0.03				0.007 (J)	<0.03
3/20/2020	0.0072 (J)			0.0091 (J)	<0.03		0.0051 (J)

## Time Series

Constituent: Mercury (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		<0.0005	<0.0005				<0.0005
6/2/2016	<0.0005				<0.0005	<0.0005	
7/25/2016			<0.0005		<0.0005		<0.0005
7/26/2016	<0.0005	<0.0005				<0.0005	
9/13/2016		<0.0005	<0.0005				
9/14/2016				<0.0005			<0.0005
9/15/2016	<0.0005					<0.0005	
9/19/2016					<0.0005		
11/1/2016		<0.0005			<0.0005	<0.0005	<0.0005
11/2/2016	<0.0005						
11/4/2016			<0.0005	<0.0005			
12/15/2016				<0.0005			
1/10/2017	<0.0005						
1/11/2017		<0.0005				<0.0005	<0.0005
1/16/2017			<0.0005	<0.0005	<0.0005		
2/21/2017					<0.0005		
3/1/2017							<0.0005
3/2/2017		<0.0005	<0.0005			<0.0005 (*)	
3/3/2017				<0.0005			
3/8/2017	<0.0005 (*)						
4/26/2017	<0.0005				<0.0005	<0.0005	<0.0005
4/27/2017		<0.0005	<0.0005				
4/28/2017				<0.0005			
5/26/2017				<0.0005			
6/27/2017		<0.0005	<0.0005				
6/28/2017				<0.0005		<0.0005	<0.0005
6/30/2017	<0.0005				<0.0005 (*)		
3/27/2018	<0.0005		<0.0005		<0.0005		
3/28/2018				<0.0005		<0.0005	<0.0005
3/29/2018		<0.0005					
2/26/2019	6.1E-05 (J)				6.8E-05 (J)		
2/27/2019		5.1E-05 (J)	5.4E-05 (J)	<0.0005		6.2E-05 (J)	6.1E-05 (J)
3/28/2019		4E-05 (J)	<0.0005				
3/29/2019	<0.0005			<0.0005			
4/1/2019					8.2E-05 (J)	9.6E-05 (J)	8.4E-05 (J)
9/24/2019		<0.0005	<0.0005	<0.0005			
9/25/2019	<0.0005				<0.0005	<0.0005	<0.0005
2/10/2020		<0.0005	<0.0005				
2/11/2020				<0.0005			<0.0005
2/12/2020	<0.0005				<0.0005	<0.0005	

## Time Series

Constituent: Mercury (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		0.014 (J)	0.012 (J)		<0.01	0.0093 (J)	0.0055 (J)
6/2/2016	<0.01				<0.01		
7/25/2016			0.0098 (J)		<0.01		0.0037 (J)
7/26/2016	<0.01	0.0132				0.0113	
9/13/2016		0.0127	0.01 (J)				
9/14/2016				0.0039 (J)			0.0034 (J)
9/15/2016	<0.01					0.0112	
9/19/2016					<0.01		
11/1/2016		0.0092 (J)			<0.01	0.0099 (J)	0.0025 (J)
11/2/2016	<0.01						
11/4/2016			0.01	0.0077 (J)			
12/15/2016				0.0066 (J)			
1/10/2017	<0.01						
1/11/2017		0.0093 (J)				0.0093 (J)	0.0033 (J)
1/16/2017			0.0086 (J)	0.0056 (J)	<0.01		
2/21/2017					<0.01		
3/1/2017							0.0044 (J)
3/2/2017		0.0099 (J)	0.01			0.0103	
3/3/2017				0.0049 (J)			
3/8/2017	<0.01						
4/26/2017	<0.01				<0.01	0.01	0.0075 (J)
4/27/2017		0.0103	0.0101				
4/28/2017				0.004 (J)			
5/26/2017				0.0029 (J)			
6/27/2017		0.0097 (J)	0.0093 (J)				
6/28/2017				0.0036 (J)		0.0102	0.008 (J)
6/30/2017	<0.01				<0.01		
3/27/2018	<0.01		0.0074 (J)		<0.01		
3/28/2018				0.0038 (J)		0.011	0.0025 (J)
3/29/2018		0.0076 (J)					
6/5/2018		0.0092 (J)					
6/6/2018			0.0073 (J)				
6/7/2018				0.004 (J)		0.011	
6/8/2018	<0.01						0.0041 (J)
6/11/2018					<0.01		
10/1/2018	<0.01	0.0085 (J)	0.0076 (J)	0.0042 (J)		0.012	0.0037 (J)
10/2/2018					<0.01		
2/26/2019	<0.01				<0.01		
2/27/2019		0.0087 (J)	0.0078 (J)	0.0041 (J)		0.011	0.0027 (J)
3/28/2019		0.0092 (J)	0.0082 (J)				
3/29/2019	<0.01			0.0041 (J)			
4/1/2019					<0.01	0.012	0.0021 (J)
9/24/2019		0.0072 (J)	0.0074 (J)	0.0054 (J)			
9/25/2019	<0.01				<0.01	0.012	0.0087 (J)
2/10/2020		0.0087 (J)	0.0062 (J)		0.0057 (J)		0.003 (J)
2/11/2020							
2/12/2020	<0.01				<0.01	0.013	
3/18/2020	<0.01		0.0056 (J)				
3/19/2020		0.0088 (J)		0.0046 (J)	<0.01	0.013	0.0043 (J)

## Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.01	<0.01	0.0011 (J)	<0.01			
6/9/2016					0.0011 (J)	<0.01	<0.01
8/1/2016	<0.01	<0.01	0.0018 (J)	<0.01			
8/2/2016					0.0014 (J)	0.0006 (J)	<0.01
9/20/2016	<0.01	<0.01	<0.01	<0.01			
9/21/2016					<0.01	<0.01	<0.01
11/7/2016	<0.01	<0.01	<0.01	<0.01			
11/8/2016					<0.01		
1/18/2017	<0.01	<0.01	<0.01		<0.01	<0.01	
1/19/2017					<0.01		<0.01
2/21/2017	<0.01	<0.01				<0.01	
2/22/2017					<0.01		<0.01
2/23/2017			<0.01				
5/3/2017		<0.01			0.0014 (J)	0.0007 (J)	
5/5/2017							
5/8/2017	<0.01		0.0011 (J)	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					0.0014 (J)		<0.01
7/7/2017						<0.01	
7/10/2017	<0.01	<0.01					
3/29/2018				<0.01	<0.01		<0.01
3/30/2018	<0.01	<0.01			<0.01	<0.01	
6/11/2018							<0.01
6/12/2018				<0.01	<0.01	<0.01	
6/13/2018	<0.01	<0.01	<0.01				
10/2/2018	<0.01	<0.01	<0.01	<0.01			<0.01
10/3/2018					<0.01	<0.01	
2/27/2019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/1/2019				<0.01	<0.01		<0.01
4/2/2019	<0.01	<0.01				<0.01	
9/25/2019	<0.01	<0.01					<0.01
9/26/2019				0.0013 (J)	<0.01	0.0013 (J)	<0.01
2/13/2020	<0.01	<0.01	0.0014 (J)	<0.01	0.0013 (J)	<0.01	<0.01
3/19/2020					0.0014 (J)	<0.01	
3/20/2020	<0.01		0.0014 (J)	<0.01			<0.01

## Time Series

Constituent: pH (S.U.) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		7.46	6.33				7.72
6/2/2016	5.46				5.75	7.84	
7/25/2016			6.21		5.82		7.74
7/26/2016	5.45	7.43				7.88	
9/13/2016		7.44	6.16	7.41			
9/14/2016							7.65
9/15/2016	5.45					7.74	
9/19/2016					5.78 (D)		
11/1/2016		7.24			5.62	7.75	7.7
11/2/2016	5.41						
11/4/2016			6.29	7.12			
12/15/2016				7.24			
1/10/2017	5.37						
1/11/2017		7.3				7.66	7.53
1/16/2017			6.29	7.24	5.72		
2/21/2017					5.67		
3/1/2017							7.42
3/2/2017		7.23	6.28			7.68	
3/3/2017				7.22			
3/8/2017	5.41						
4/26/2017	5.02				5.56	7.45	7.4
4/27/2017		6.99	6.09				
4/28/2017				7.21			
5/26/2017				7.13			
6/27/2017		6.87	6.21				
6/28/2017				7.06		7.65	7.5
6/30/2017	5.39				5.72		
10/3/2017		6.81	5.98	6.99			
10/4/2017					5.87	7.49	7.45
10/5/2017	5.49						
3/27/2018	5.47		6.25		5.83		
3/28/2018				7.3		7.91	7.74
3/29/2018		7.38					
6/5/2018		7.16					
6/6/2018			6.17				
6/7/2018				7.29		7.69	
6/8/2018	5.45						7.64
6/11/2018					5.69		
10/1/2018	5.39	6.8	5.9	7.07		7.39	7.47
10/2/2018					5.39		
2/26/2019	5.46				5.77		
2/27/2019		6.84	5.8	7.27		7.55	7.54
3/28/2019		6.99	6.15				
3/29/2019	5.34			7.06			
4/1/2019					5.62	7.87	7.74
9/24/2019		7.07	6.23	7.01			
9/25/2019	5.19				5.69	7.64	7.47
2/10/2020		7.2	6.1				
2/11/2020				7.38			7.09
2/12/2020	5.48				5.8	7.83	
3/18/2020	5.38		6.19				
3/19/2020		7.03		7.22	6	7.65	7.31

## Time Series

Constituent: pH (S.U.) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	5.85	5.24	6.32	6.24			
6/9/2016					6.42	6.39	6.19
8/1/2016	5.83	5.17	6.34	6.12			
8/2/2016					6.43	6.35	6.17
9/20/2016	5.89	5.35	6.36	6.3			
9/21/2016					6.45	6.39	6.2
11/7/2016	5.91	5.35	6.3	6.25		6.36	6.1
11/8/2016					6.37		
1/18/2017	5.84	5.2	6.31		6.27	6.23	
1/19/2017				6.2			6.22
2/21/2017	5.79	5.14				6.42	
2/22/2017				6.14	6.35		6.12
2/23/2017			6.18				
5/3/2017		5.28			6.36	6.4	
5/5/2017							
5/8/2017	5.84		6.24	6.11			6.11
6/30/2017			6.21	6.17			
7/5/2017					6.4		6.17
7/7/2017						6.46	
7/10/2017	5.92	5.25			6.43		6.17
10/5/2017				6.13			
10/6/2017							
10/9/2017			6.26			6.37	
10/10/2017	5.84	5.17					
3/29/2018			6.36	6.25			6.09
3/30/2018	6.19	5.19			6.39	6.35	
6/11/2018				6.22	6.42		6.17
6/12/2018					6.47		
6/13/2018	5.82	5.12	6.28				
10/2/2018	5.81	4.95	5.9	5.99			6.17
10/3/2018					6.21	6.01	
2/27/2019	5.79	5	6.31	6.26	6.32	6.38	6.19
4/1/2019			6.43	6.4	6.3		6.03
4/2/2019	5.87	5.13				6.7	
9/25/2019	5.79	5.24					6.21
9/26/2019			6.3	6.22	6.43	6.47	
2/13/2020	5.93	5.29	6.4	6.31	6.49	6.53	6.32
3/19/2020		5.46			7.01	6.98	
3/20/2020	5.94		6.32	6.18			6.17

## Time Series

Constituent: Selenium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		<0.01	<0.01				<0.01
6/2/2016	0.0011 (J)				<0.01	<0.01	
7/25/2016			<0.01		<0.01		<0.01
7/26/2016	0.0016 (J)	<0.01				<0.01	
9/13/2016		<0.01	<0.01				
9/14/2016				<0.01			<0.01
9/15/2016	0.0014 (J)					<0.01	
9/19/2016					<0.01		
11/1/2016		<0.01			<0.01	<0.01	<0.01
11/2/2016	<0.01						
11/4/2016			<0.01	<0.01			
12/15/2016				<0.01			
1/10/2017	0.0012 (J)						
1/11/2017		<0.01				<0.01	<0.01
1/16/2017			<0.01	<0.01	<0.01		
2/21/2017					<0.01		
3/1/2017							<0.01
3/2/2017		<0.01	<0.01			<0.01	
3/3/2017				<0.01			
3/8/2017	<0.01						
4/26/2017	<0.01				<0.01	<0.01	<0.01
4/27/2017		<0.01	<0.01				
4/28/2017				<0.01			
5/26/2017				<0.01			
6/27/2017		<0.01	<0.01				
6/28/2017				<0.01		<0.01	<0.01
6/30/2017	<0.01				<0.01		
3/27/2018	<0.01		<0.01		<0.01		
3/28/2018				<0.01		<0.01	<0.01
3/29/2018		<0.01					
2/26/2019	<0.01				<0.01		
2/27/2019		<0.01	<0.01	<0.01		<0.01	<0.01
3/28/2019		<0.01	<0.01				
3/29/2019	0.0019 (J)			<0.01			
4/1/2019					<0.01	<0.01	<0.01
9/24/2019		<0.01	<0.01	<0.01			
9/25/2019	<0.01				<0.01	<0.01	<0.01
2/10/2020		<0.01	<0.01				
2/11/2020				<0.01			<0.01
2/12/2020	<0.01				<0.01	<0.01	
3/18/2020	<0.01		<0.01		<0.01	<0.01	
3/19/2020		<0.01		<0.01	<0.01	<0.01	<0.01

## Time Series

Constituent: Selenium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.0016	0.0003 (J)	<0.01	<0.01			
6/9/2016					<0.01	<0.01	<0.01
8/1/2016	0.0023 (J)	0.0014 (J)	<0.01	<0.01			
8/2/2016					<0.01	<0.01	<0.01
9/20/2016	0.0022 (J)	<0.01	<0.01	<0.01			
9/21/2016					<0.01	0.001 (J)	<0.01
11/7/2016	0.0017 (J)	<0.01	<0.01	<0.01		<0.01	<0.01
11/8/2016					<0.01		
1/18/2017	0.002 (J)	0.0012 (J)	<0.01		<0.01	<0.01	
1/19/2017					<0.01		<0.01
2/21/2017	0.0018 (J)	0.0014 (J)				<0.01	
2/22/2017				<0.01	0.0012 (J)		<0.01
2/23/2017			<0.01				
5/3/2017		<0.01			<0.01	<0.01	
5/5/2017					<0.01		
5/8/2017	<0.01		<0.01	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					<0.01		<0.01
7/7/2017						<0.01	
7/10/2017	0.002 (J)	<0.01					
3/29/2018			<0.01	<0.01			<0.01
3/30/2018	<0.01	<0.01			<0.01	<0.01	
2/27/2019	0.002 (J)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/1/2019			<0.01	<0.01	<0.01		<0.01
4/2/2019	0.0017 (J)	<0.01				<0.01	
9/25/2019	0.0019 (J)	<0.01					<0.01
9/26/2019			<0.01	<0.01	<0.01	<0.01	
2/13/2020	0.0019 (J)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/19/2020		<0.01			<0.01	<0.01	
3/20/2020	0.0019 (J)		<0.01	<0.01			<0.01

## Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		5	4.2				12
6/2/2016	6.6				1.3	5.8	
7/25/2016			3.7		1.2		8.4
7/26/2016	6.1	5.4				6.7	
9/13/2016		2.9	5.2				
9/14/2016				9.4			8.6
9/15/2016	6.1					6	
9/19/2016					1.2		
11/1/2016		3.9			1.3	4.9	8.9
11/2/2016	6.3						
11/4/2016			5	13			
12/15/2016				1.8			
1/10/2017	5.9						
1/11/2017		3.7				4.5	8.6
1/16/2017			7.9	11	<1.5 (*)		
2/21/2017					1.4		
3/1/2017							9.3
3/2/2017		4.6	7.4			4.4	
3/3/2017				8.8			
3/8/2017	7						
4/26/2017	7				1.4	5.1	11
4/27/2017		5.2	7.4				
4/28/2017				10			
5/26/2017				12			
6/27/2017		5.9	6.4				
6/28/2017				11		5.4	12
6/30/2017	6.5				<1.5 (*)		
10/3/2017		6.6	5.9	7.9			
10/4/2017					1.4	6.2	12
10/5/2017	7.9						
6/5/2018		6.4					
6/6/2018			4.4				
6/7/2018				8.8		6.7	
6/8/2018	6.4						9.6
6/11/2018					1.1		
10/1/2018	6.8	5.6	4	9.1		7.1	9.1
10/2/2018					1		
3/28/2019		8	4.3				
3/29/2019	7.3			9			
4/1/2019					0.96 (J)	7.2	8.5
9/24/2019		5.3	4.3	9.1			
9/25/2019	6.6				0.81 (J)	7	13.8
3/18/2020	8.1		5.3				
3/19/2020		10		12.4	1.6	9	12.9

## Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	81	110	3.2	26			
6/9/2016					8.7	5.2	33
8/1/2016	75	96	3.6	27			
8/2/2016					7.5	4.5	32
9/20/2016	78	100	5.6	21			
9/21/2016					8	<1.5 (*)	32
11/7/2016	81	100	5.4	24			
11/8/2016					8.3		
1/18/2017	95	100	3.5			2.7	
1/19/2017				25			32
2/21/2017	80	96				3	
2/22/2017				24	8.2		31
2/23/2017			4.9				
5/3/2017		100			<1.5 (*)	<1.5 (*)	
5/5/2017							
5/8/2017	84		3.9	23			32
6/30/2017			5	23			
7/5/2017					8.1		31
7/7/2017						2.7	
7/10/2017	84	100			8.6		31
10/5/2017				23			
10/6/2017						2.9	
10/9/2017			5.1				
10/10/2017	82	97					
6/11/2018							30.6
6/12/2018				18.1	8.2	2.9	
6/13/2018	76.5	93.3	6.1				
10/2/2018	83.9	99	6.1	20.2			30.8
10/3/2018					8	2.1	
4/1/2019			4.1	18.3	8.2		30.4
4/2/2019	77.6	94.5				2.4	
9/25/2019	80.1	97					30
9/26/2019				4.2	18.2	7.9	1.6
3/19/2020						9.1	1.7
3/20/2020	84.7		5.2	21.1			33

## Time Series

Constituent: Thallium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		<0.001	<0.001				<0.001
6/2/2016	<0.001				<0.001	<0.001	
7/25/2016			<0.001		<0.001		<0.001
7/26/2016	<0.001	<0.001				0.0001 (J)	
9/13/2016		<0.001	<0.001				
9/14/2016				<0.001			<0.001
9/15/2016	<0.001					<0.001	
9/19/2016					<0.001		
11/1/2016		<0.001			<0.001	<0.001	<0.001
11/2/2016	<0.001						
11/4/2016			<0.001	<0.001			
12/15/2016				<0.001			
1/10/2017	<0.001						
1/11/2017		<0.001				<0.001	<0.001
1/16/2017			<0.001	<0.001	<0.001		
2/21/2017					<0.001		
3/1/2017						<0.001	
3/2/2017		<0.001	<0.001			<0.001	
3/3/2017				<0.001			
3/8/2017	<0.001						
4/26/2017	<0.001				<0.001	<0.001	<0.001
4/27/2017		<0.001	<0.001				
4/28/2017				<0.001			
5/26/2017				<0.001			
6/27/2017		<0.001	<0.001				
6/28/2017				<0.001		<0.001	<0.001
6/30/2017	<0.001				<0.001		
3/27/2018	<0.001		<0.001		<0.001		
3/28/2018				<0.001		<0.001	<0.001
3/29/2018		<0.001					
2/26/2019	<0.001				<0.001		
2/27/2019		<0.001	<0.001	<0.001		<0.001	<0.001
2/10/2020		<0.001	5.5E-05 (J)				
2/11/2020				<0.001			<0.001
2/12/2020	8.9E-05 (J)				<0.001	<0.001	
3/18/2020	<0.001		<0.001		<0.001	<0.001	
3/19/2020		<0.001		<0.001	<0.001	<0.001	

## Time Series

Constituent: Thallium (mg/L) Analysis Run 5/12/2020 3:51 PM  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.001	<0.001	<0.001	0.00012 (J)			
6/9/2016					<0.001	<0.001	<0.001
8/1/2016	<0.001	<0.001	<0.001	0.0001 (J)			
8/2/2016					<0.001	<0.001	<0.001
9/20/2016	<0.001	<0.001	<0.001	<0.001			
9/21/2016					<0.001	<0.001	<0.001
11/7/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001
11/8/2016					<0.001		
1/18/2017	<0.001	<0.001	<0.001		<0.001	<0.001	
1/19/2017					<0.001		<0.001
2/21/2017	<0.001	<0.001				<0.001	
2/22/2017					<0.001	<0.001	
2/23/2017			<0.001				
5/3/2017		<0.001			<0.001	<0.001	
5/5/2017					<0.001		
5/8/2017	<0.001		<0.001	0.0001 (J)			<0.001
6/30/2017			<0.001	0.0001 (J)			
7/5/2017					<0.001		<0.001
7/7/2017						<0.001	
7/10/2017	<0.001	<0.001					
3/29/2018			<0.001	<0.001			<0.001
3/30/2018	<0.001	<0.001			<0.001	<0.001	
2/27/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2/13/2020	<0.001	5.7E-05 (J)	<0.001	0.0001 (J)	<0.001	<0.001	<0.001
3/19/2020		5.5E-05 (J)			<0.001	<0.001	
3/20/2020	<0.001		<0.001	0.00011 (J)			<0.001

## Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)
6/1/2016		120	54				150
6/2/2016	46				36	130	
7/25/2016			48		50		135
7/26/2016	54	94				141	
9/13/2016		105	67				
9/14/2016				152			127
9/15/2016	54					153	
9/19/2016					35		
11/1/2016		44			<25	92	75
11/2/2016	71						
11/4/2016			60	148			
12/15/2016				191			
1/10/2017	45						
1/11/2017		107				159	148
1/16/2017			65	180	47		
2/21/2017					<25		
3/1/2017							182
3/2/2017		98	61			117	
3/3/2017				156			
3/8/2017	178						
4/26/2017	52				55	181	92
4/27/2017		116	31				
4/28/2017				130			
5/26/2017				223			
6/27/2017		89	42				
6/28/2017				166		169	126
6/30/2017	45				42		
10/3/2017		119	58	153			
10/4/2017					31	141	147
10/5/2017	40						
6/5/2018		127					
6/6/2018			96				
6/7/2018				146		95	
6/8/2018	114						158
6/11/2018					59		
10/1/2018	50	117	60	155		165	138
10/2/2018					57		
3/28/2019		87	87				
3/29/2019	63			150			
4/1/2019					54	149	19 (J)
9/24/2019		124	54	146			
9/25/2019	64				51	157	159
3/18/2020	57		35				
3/19/2020		116		148	47	146	148

## Time Series

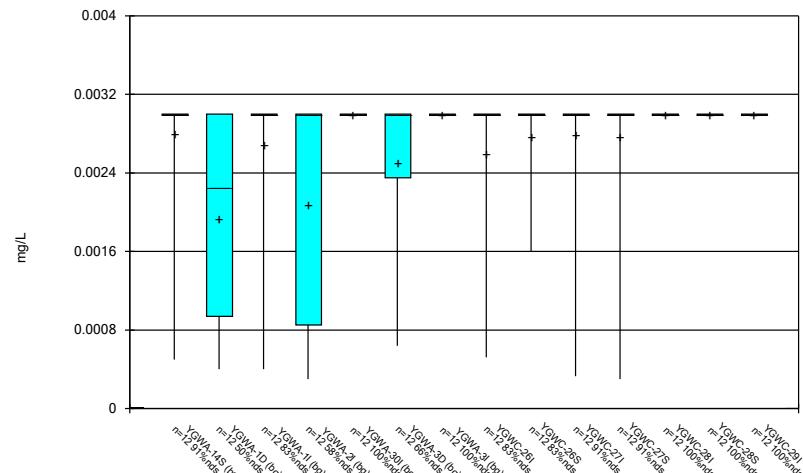
Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2020 3:51 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	220	200	190	210			
6/9/2016					240	210	150
8/1/2016	211	191	191	209			
8/2/2016					226	202	155
9/20/2016	217	213	205	224			
9/21/2016					214	216	138
11/7/2016	301	284	264	291		399	291
11/8/2016					229		
1/18/2017	265 (D)	158 (D)	167 (D)		243 (D)	215 (D)	
1/19/2017					215 (D)		145 (D)
2/21/2017	158	137				198	
2/22/2017				262	310		185
2/23/2017			253				
5/3/2017		269			289	347	
5/5/2017							
5/8/2017	207		174	187			114
6/30/2017			193	209			
7/5/2017					217		136
7/7/2017						236	
7/10/2017	219	183			221		139
10/5/2017				183			
10/6/2017						204	
10/9/2017			185				
10/10/2017	194	179					
6/11/2018							156
6/12/2018				208	234	243	
6/13/2018	228	196	219				
10/2/2018	227	191	227	206			154
10/3/2018					232	237	
4/1/2019			198	221	238		147
4/2/2019	223	224				<25	
9/25/2019	225	190					162
9/26/2019				198	225	241	239
3/19/2020			194			212	202
3/20/2020	211			195	182		137

**FIGURE B.**

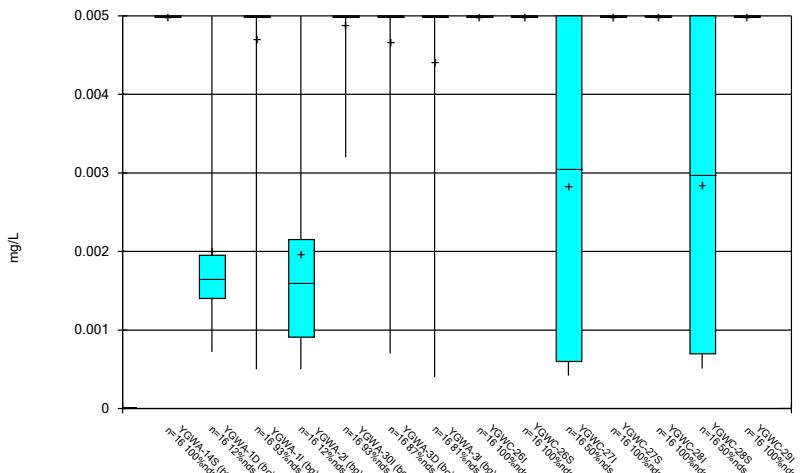
## Box &amp; Whiskers Plot



Constituent: Antimony Analysis Run 5/12/2020 3:52 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

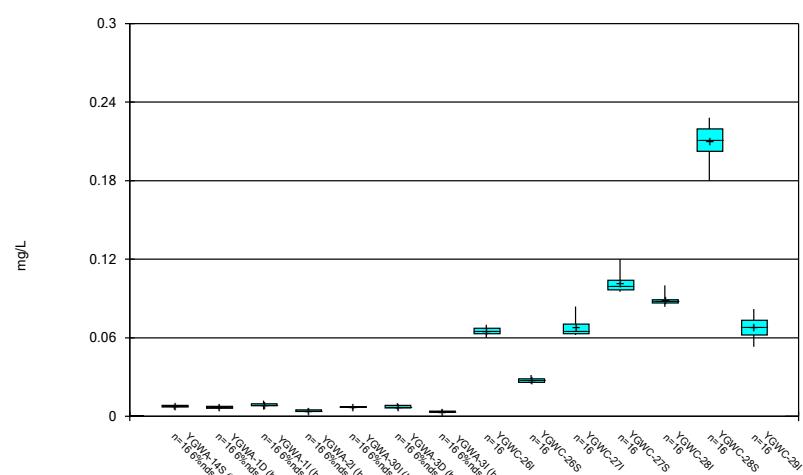
## Box &amp; Whiskers Plot



Constituent: Arsenic Analysis Run 5/12/2020 3:52 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

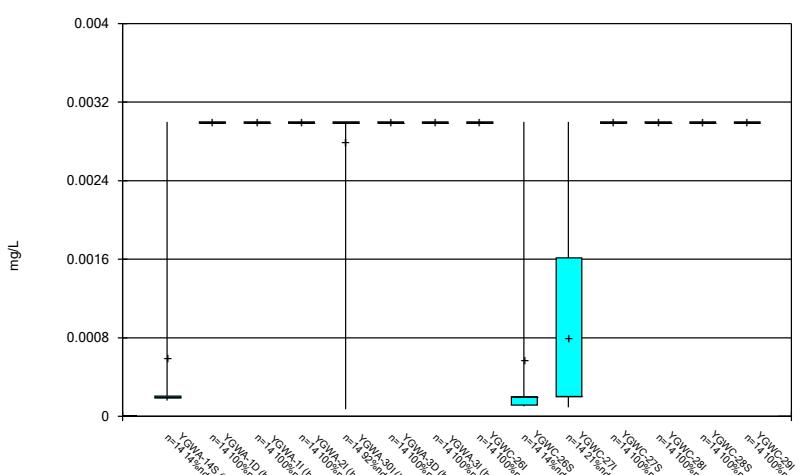
## Box &amp; Whiskers Plot



Constituent: Barium Analysis Run 5/12/2020 3:52 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

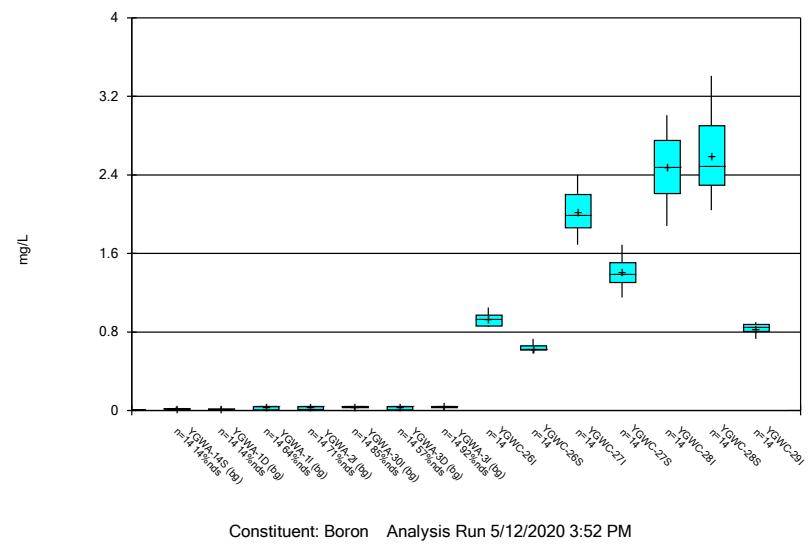
## Box &amp; Whiskers Plot



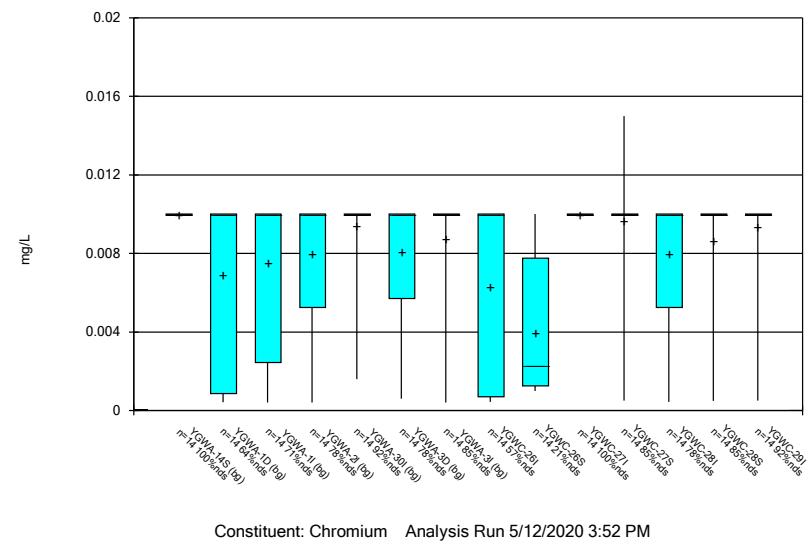
Constituent: Beryllium Analysis Run 5/12/2020 3:52 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

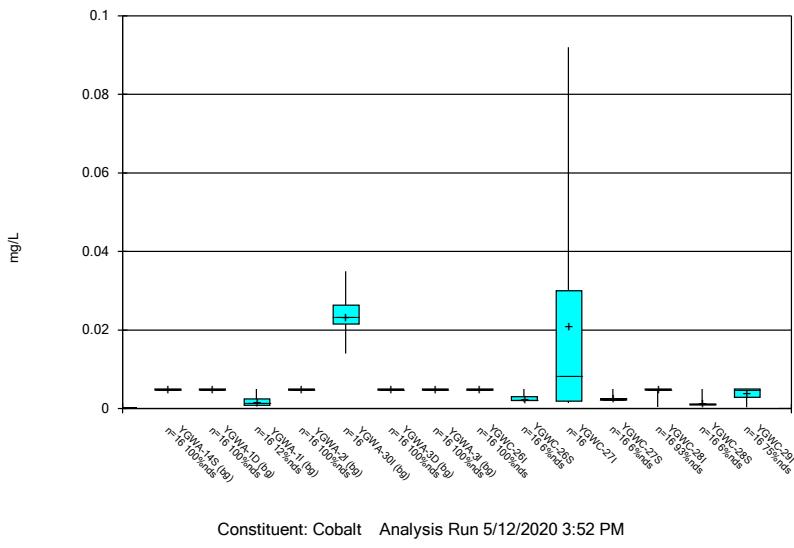
## Box &amp; Whiskers Plot



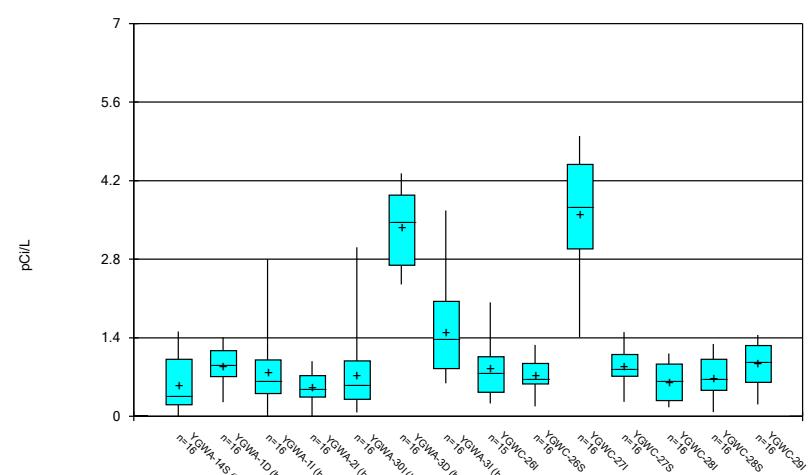
## Box &amp; Whiskers Plot



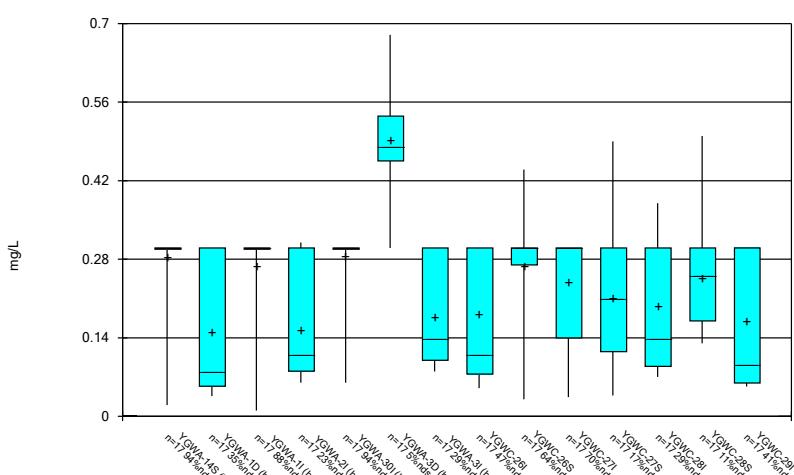
## Box &amp; Whiskers Plot



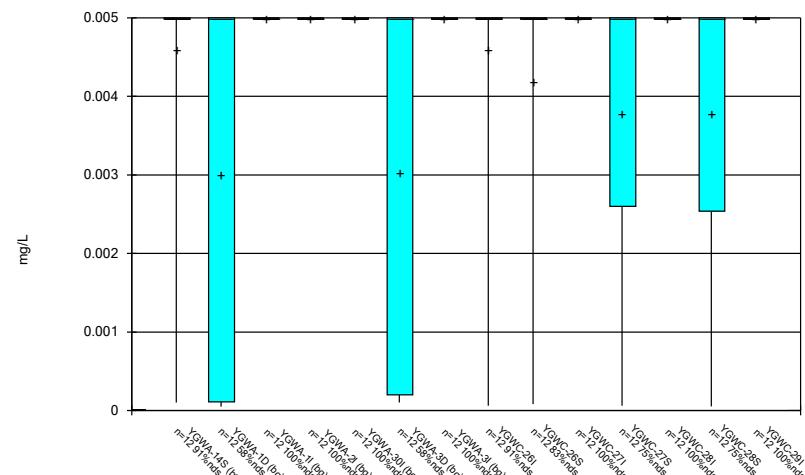
## Box &amp; Whiskers Plot



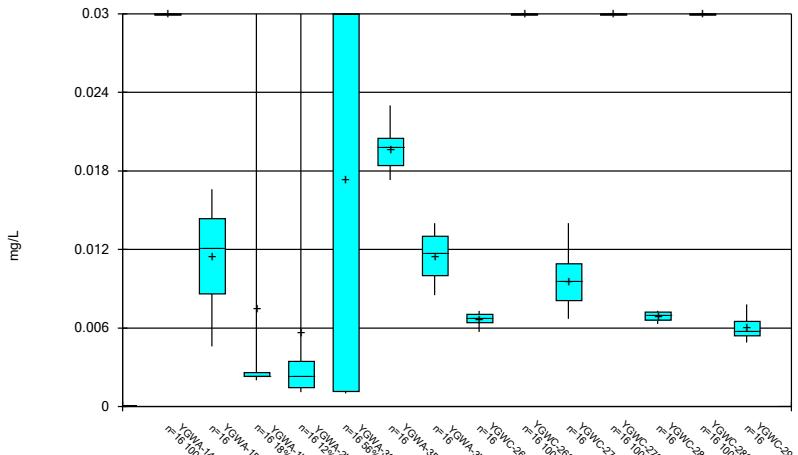
## Box &amp; Whiskers Plot



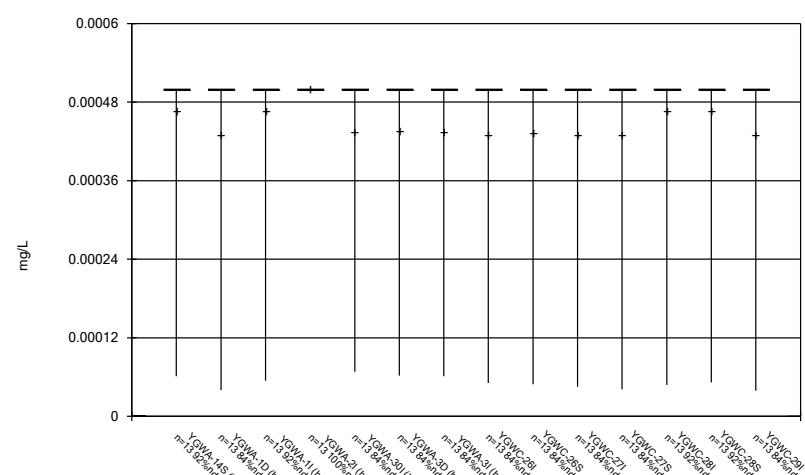
## Box &amp; Whiskers Plot



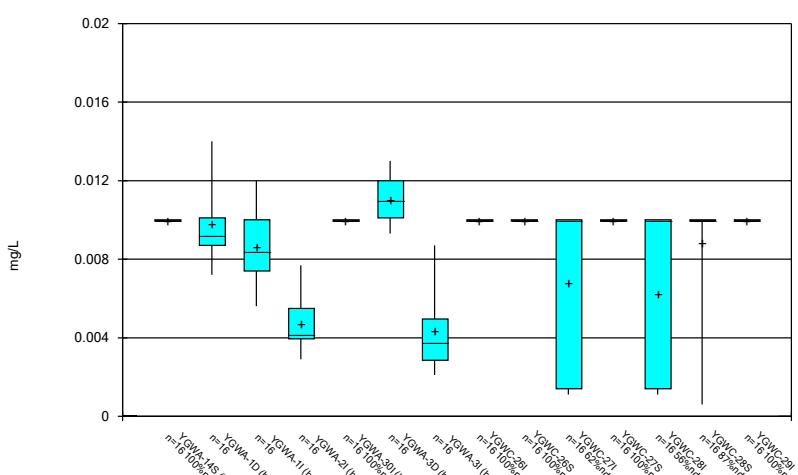
## Box &amp; Whiskers Plot



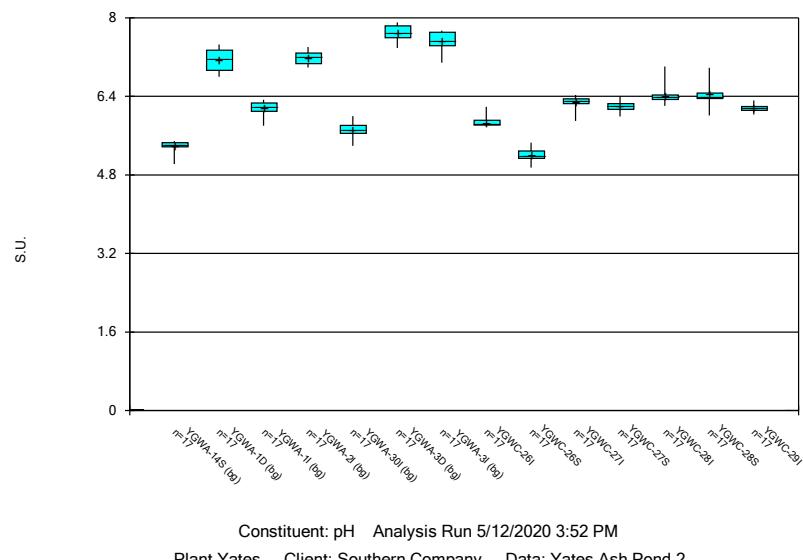
## Box &amp; Whiskers Plot



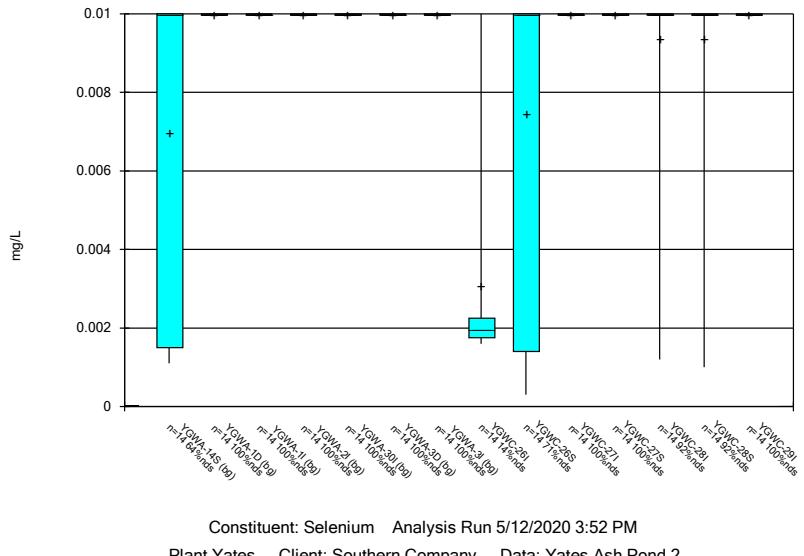
## Box &amp; Whiskers Plot



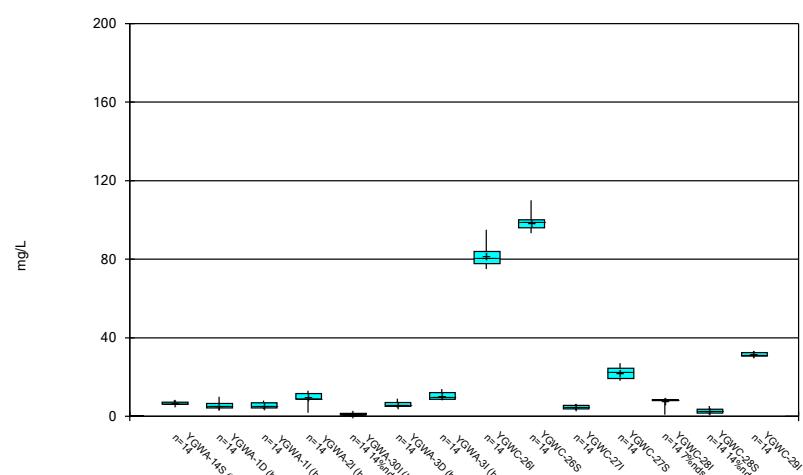
## Box &amp; Whiskers Plot



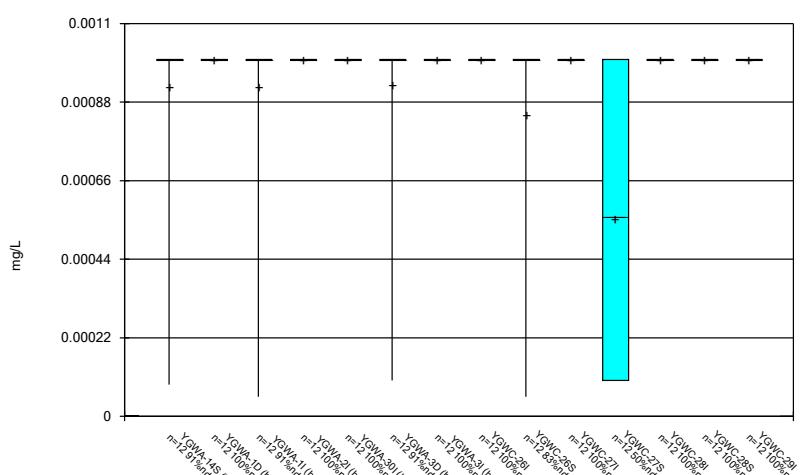
## Box &amp; Whiskers Plot



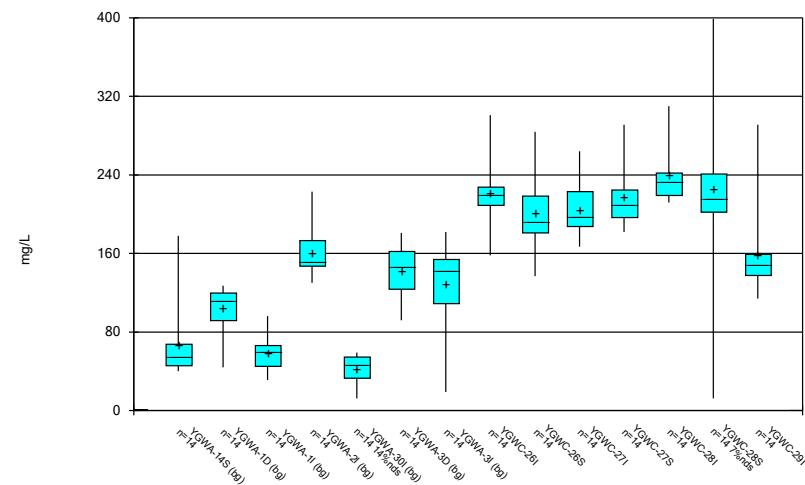
## Box &amp; Whiskers Plot



## Box &amp; Whiskers Plot



### Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/12/2020 3:52 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## FIGURE C.

## Outlier Summary

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:53 PM

6/8/2016

YGWC-26I Combined Radium 226 + 228 (pCi/L)

6.68 (o)

### Appendix III Tukey's Outlier Analysis - Significant Results

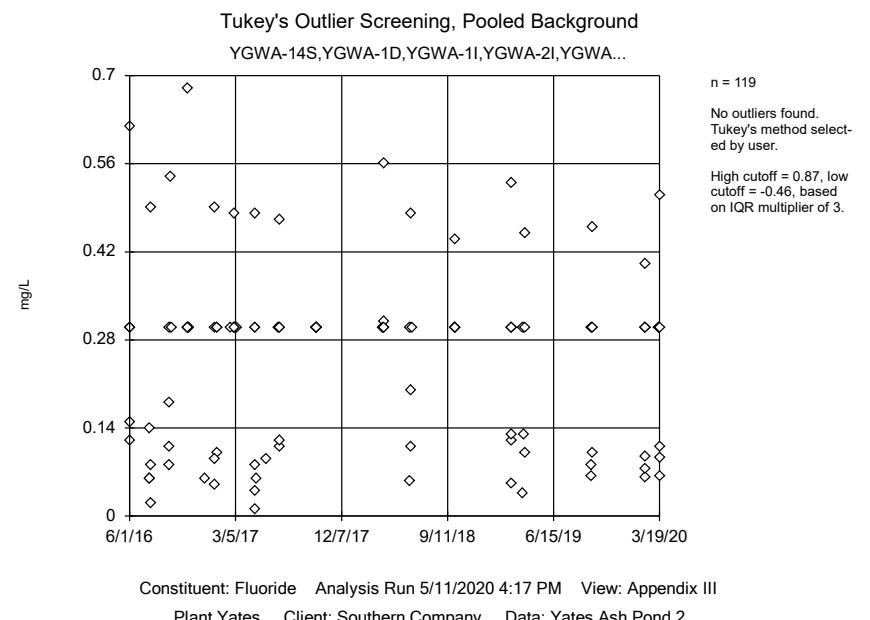
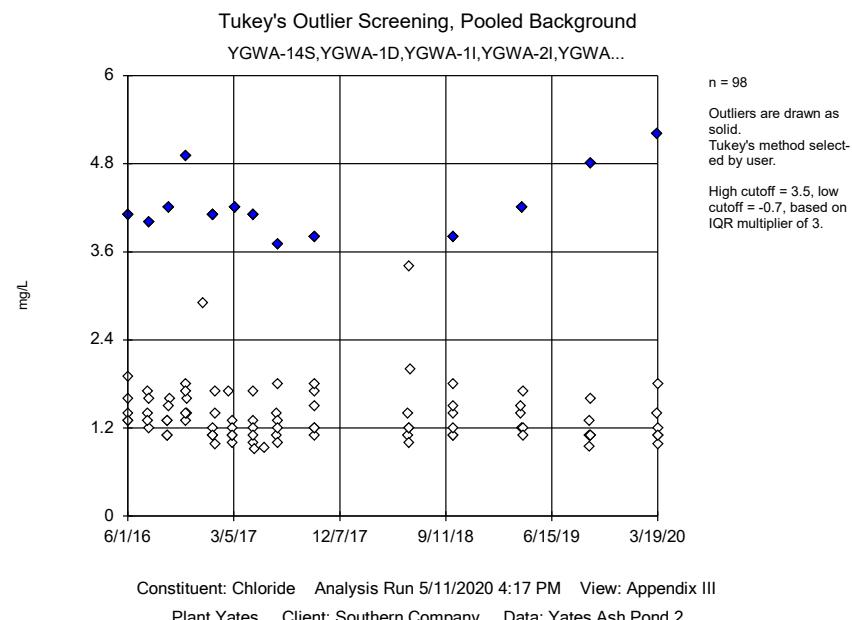
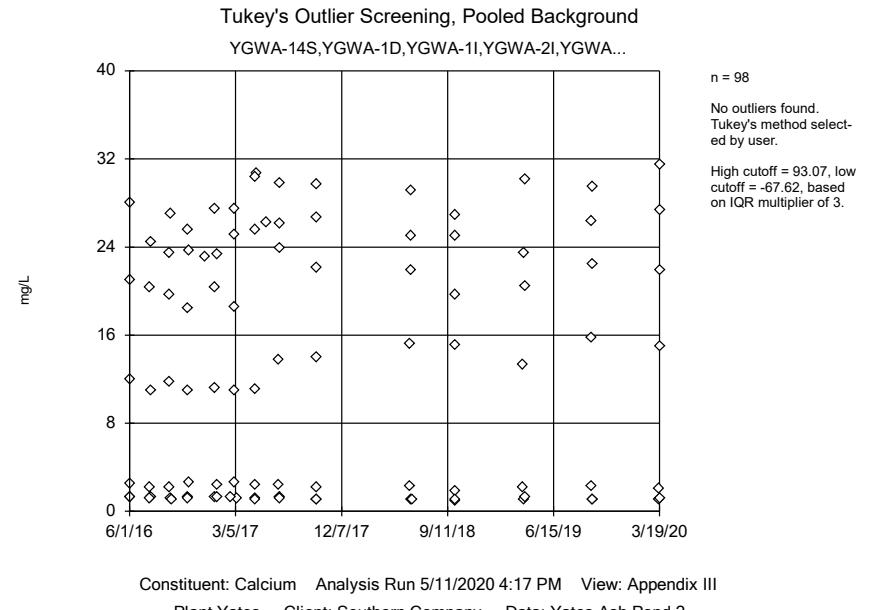
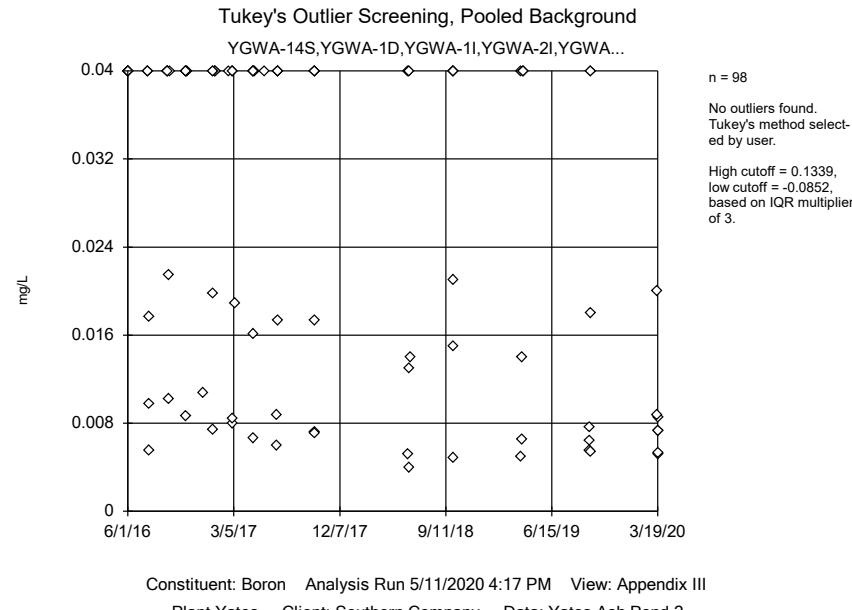
Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/11/2020, 4:19 PM

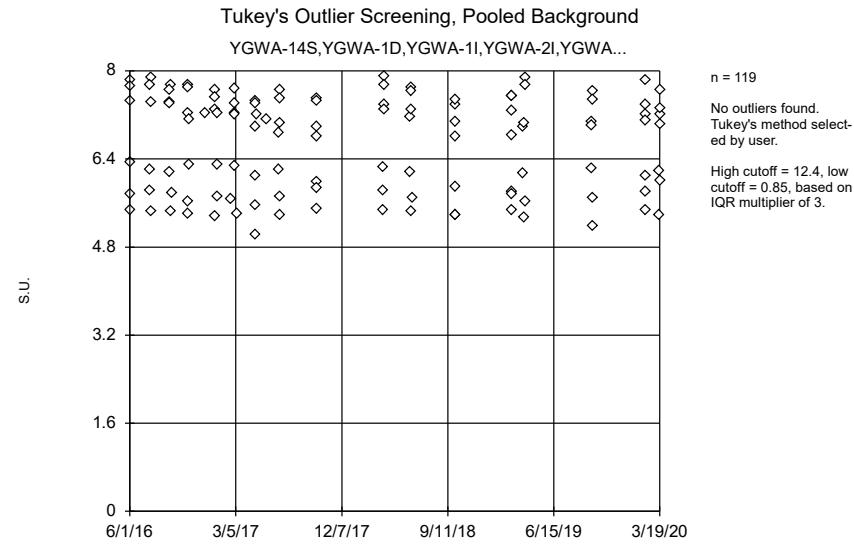
<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Chloride (mg/L)	YGWA-14S,YGWA-1D,...	Yes	4.1,4.1,4.1,4.2,4.2,4.2,4.9,3.7,3.8,3.8,4.8,5.2	NP	98	1.748	1.054	normal	ShapiroFrancia

## Appendix III Tukey's Outlier Analysis - All Results

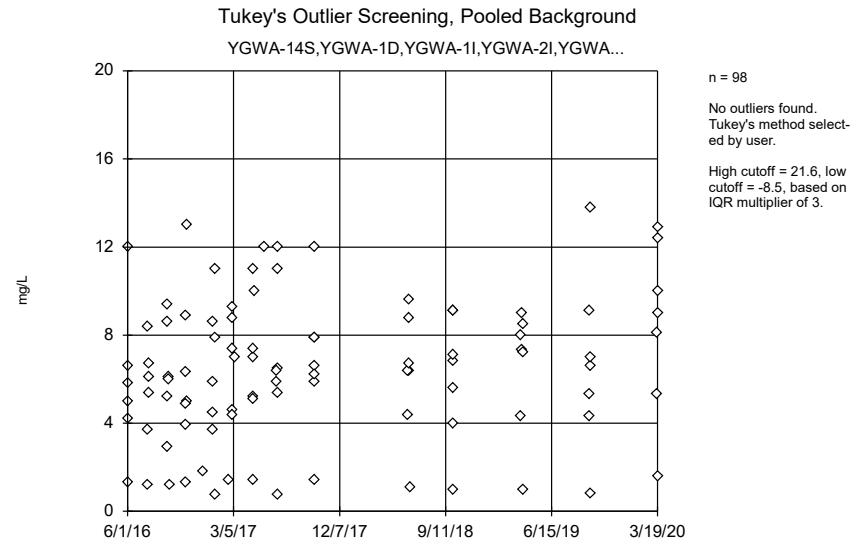
Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/11/2020, 4:19 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Boron (mg/L)	YGWA-14S,YGWA-1D,...	No	n/a	NP	98	0.02735	0.01509	normal	ShapiroFrancia
Calcium (mg/L)	YGWA-14S,YGWA-1D,...	No	n/a	NP	98	13.21	11.18	normal	ShapiroFrancia
<b>Chloride (mg/L)</b>	<b>YGWA-14S,YGWA-1D,...</b>	<b>Yes</b>	<b>4.1,4.1,4.1,4.2,4.2,4.2,4.9,3.7,3.8,3.8,4.8,5.2</b>	<b>NP</b>	<b>98</b>	<b>1.748</b>	<b>1.054</b>	<b>normal</b>	<b>ShapiroFrancia</b>
Fluoride (mg/L)	YGWA-14S,YGWA-1D,...	No	n/a	NP	119	0.2586	0.1406	normal	ChiSquared
pH (S.U.)	YGWA-14S,YGWA-1D,...	No	n/a	NP	119	6.687	0.8682	normal	ChiSquared
Sulfate (mg/L)	YGWA-14S,YGWA-1D,...	No	n/a	NP	98	6.415	3.211	normal	ShapiroFrancia
Total Dissolved Solids (mg/L)	YGWA-14S,YGWA-1D,...	No	n/a	NP	98	100.5	50.19	normal	ShapiroFrancia

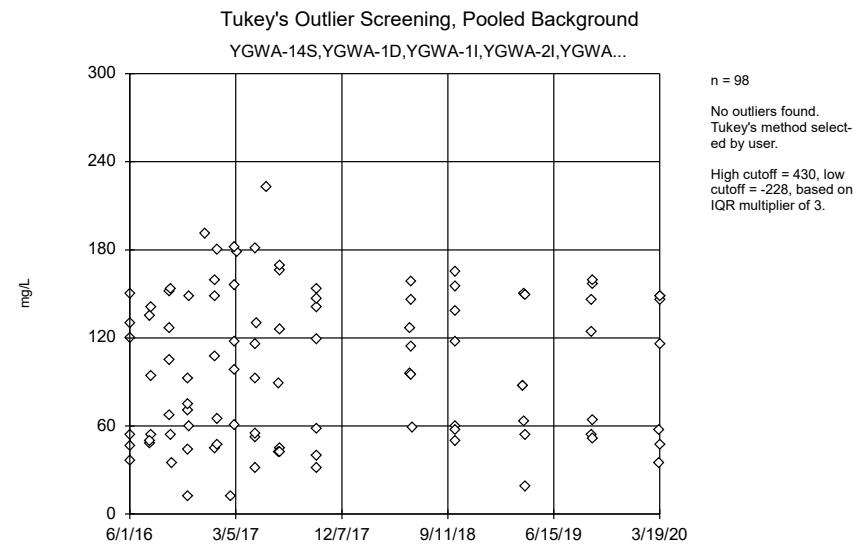




Constituent: pH Analysis Run 5/11/2020 4:17 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Sulfate Analysis Run 5/11/2020 4:17 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Total Dissolved Solids Analysis Run 5/11/2020 4:17 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## Appendix IV Tukey's Outlier Analysis - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Arsenic (mg/L)	YGWA-1D (bg)	Yes 0.005,0.005	9/13/2016,11/1/2016	NP	16	0.002011	0.001242	normal	ShapiroWilk
Barium (mg/L)	YGWA-30I (bg)	Yes 0.005	3/27/2018	NP	16	0.006975	0.0006245	normal	ShapiroWilk
Barium (mg/L)	YGWC-28I	Yes 0.1	6/9/2016	NP	16	0.08876	0.003645	normal	ShapiroWilk
Beryllium (mg/L)	YGWA-14S (bg)	Yes 0.003,0.003	6/2/2016,3/27/2018	NP	14	0.0005936	0.00102	normal	ShapiroWilk
Beryllium (mg/L)	YGWC-26S	Yes 0.003,0.003	6/8/2016,3/30/2018	NP	14	0.000565	0.001032	normal	ShapiroWilk
Cadmium (mg/L)	YGWC-28I	Yes 0.0025,0.0025	3/30/2018,9/26/2019	NP	14	0.0005129	0.0008531	normal	ShapiroWilk
Cadmium (mg/L)	YGWC-29I	Yes 0.001,0.001	6/9/2016,3/29/2018	NP	14	0.0003014	0.0003003	normal	ShapiroWilk
Cobalt (mg/L)	YGWC-27S	Yes 0.005	3/29/2018	NP	16	0.002544	0.0006723	normal	ShapiroWilk
Cobalt (mg/L)	YGWC-28S	Yes 0.005	3/30/2018	NP	16	0.001263	0.001007	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	Yes 6.68	6/8/2016	NP	16	1.223	1.549	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-26S	Yes 0.03,0.44,0.16,0.044	9/20/2016,11/7/2016,5/3/2017,6/13/2018	NP	17	0.2685	0.1021	normal	ShapiroWilk
Lithium (mg/L)	YGWA-1I (bg)	Yes 0.03,0.03,0.03	6/1/2016,9/13/2016,11/4/2016	NP	16	0.007525	0.01115	normal	ShapiroWilk
Lithium (mg/L)	YGWA-2I (bg)	Yes 0.03,0.03	11/4/2016,10/1/2018	NP	16	0.005694	0.00953	normal	ShapiroWilk
Selenium (mg/L)	YGWC-26I	Yes 0.01,0.01	5/8/2017,3/30/2018	NP	14	0.003071	0.002941	normal	ShapiroWilk

## Appendix IV Tukey's Outlier Analysis - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier Value(s)</u>		<u>Date(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Antimony (mg/L)	YGWA-14S (bg)	n/a	n/a	n/a	NP	12	0.002792	0.0007217	unknown	ShapiroWilk
Antimony (mg/L)	YGWA-1D (bg)	No	n/a	n/a	NP	12	0.001932	0.001151	normal	ShapiroWilk
Antimony (mg/L)	YGWA-1I (bg)	n/a	n/a	n/a	NP	12	0.002675	0.0008081	unknown	ShapiroWilk
Antimony (mg/L)	YGWA-2I (bg)	No	n/a	n/a	NP	12	0.002072	0.001193	normal	ShapiroWilk
Antimony (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Antimony (mg/L)	YGWA-3D (bg)	No	n/a	n/a	NP	12	0.002512	0.0008862	normal	ShapiroWilk
Antimony (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	12	0.002593	0.0009518	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-26S	n/a	n/a	n/a	NP	12	0.002775	0.0005259	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-27I	n/a	n/a	n/a	NP	12	0.002778	0.0007708	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	12	0.002775	0.0007794	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Antimony (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	12	0.003	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWA-14S (bg)	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
<b>Arsenic (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>Yes</b>	<b>0.005,0.005</b>	<b>9/13/2016,11/1/2016</b>	<b>NP</b>	<b>16</b>	<b>0.002011</b>	<b>0.001242</b>	<b>normal</b>	<b>ShapiroWilk</b>
Arsenic (mg/L)	YGWA-1I (bg)	n/a	n/a	n/a	NP	16	0.004719	0.001125	unknown	ShapiroWilk
Arsenic (mg/L)	YGWA-2I (bg)	No	n/a	n/a	NP	16	0.001963	0.001503	normal	ShapiroWilk
Arsenic (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	16	0.004887	0.00045	unknown	ShapiroWilk
Arsenic (mg/L)	YGWA-3D (bg)	n/a	n/a	n/a	NP	16	0.004656	0.001097	unknown	ShapiroWilk
Arsenic (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	16	0.004412	0.001453	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-26S	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-27I	No	n/a	n/a	NP	16	0.00284	0.002236	normal	ShapiroWilk
Arsenic (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Arsenic (mg/L)	YGWC-28S	No	n/a	n/a	NP	16	0.002844	0.002228	normal	ShapiroWilk
Arsenic (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Barium (mg/L)	YGWA-14S (bg)	No	n/a	n/a	NP	16	0.007575	0.001019	normal	ShapiroWilk
Barium (mg/L)	YGWA-1D (bg)	No	n/a	n/a	NP	16	0.006844	0.0009647	normal	ShapiroWilk
Barium (mg/L)	YGWA-1I (bg)	No	n/a	n/a	NP	16	0.008769	0.001662	normal	ShapiroWilk
Barium (mg/L)	YGWA-2I (bg)	No	n/a	n/a	NP	16	0.004119	0.0008296	normal	ShapiroWilk
<b>Barium (mg/L)</b>	<b>YGWA-30I (bg)</b>	<b>Yes</b>	<b>0.005</b>	<b>3/27/2018</b>	<b>NP</b>	<b>16</b>	<b>0.006975</b>	<b>0.0006245</b>	<b>normal</b>	<b>ShapiroWilk</b>
Barium (mg/L)	YGWA-3D (bg)	No	n/a	n/a	NP	16	0.007312	0.00137	normal	ShapiroWilk
Barium (mg/L)	YGWA-3I (bg)	No	n/a	n/a	NP	16	0.003531	0.0006916	normal	ShapiroWilk
Barium (mg/L)	YGWC-26I	No	n/a	n/a	NP	16	0.06526	0.002713	normal	ShapiroWilk
Barium (mg/L)	YGWC-26S	No	n/a	n/a	NP	16	0.02756	0.0017	normal	ShapiroWilk
Barium (mg/L)	YGWC-27I	No	n/a	n/a	NP	16	0.06765	0.006649	normal	ShapiroWilk
Barium (mg/L)	YGWC-27S	No	n/a	n/a	NP	16	0.1018	0.007225	normal	ShapiroWilk
<b>Barium (mg/L)</b>	<b>YGWC-28I</b>	<b>Yes</b>	<b>0.1</b>	<b>6/9/2016</b>	<b>NP</b>	<b>16</b>	<b>0.08876</b>	<b>0.003645</b>	<b>normal</b>	<b>ShapiroWilk</b>
Barium (mg/L)	YGWC-28S	No	n/a	n/a	NP	16	0.2102	0.01155	normal	ShapiroWilk
Barium (mg/L)	YGWC-29I	No	n/a	n/a	NP	16	0.06773	0.008408	normal	ShapiroWilk
<b>Beryllium (mg/L)</b>	<b>YGWA-14S (bg)</b>	<b>Yes</b>	<b>0.003,0.003</b>	<b>6/2/2016,3/27/2018</b>	<b>NP</b>	<b>14</b>	<b>0.0005936</b>	<b>0.00102</b>	<b>normal</b>	<b>ShapiroWilk</b>
Beryllium (mg/L)	YGWA-1D (bg)	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-1I (bg)	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-2I (bg)	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	14	0.002791	0.0007825	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-3D (bg)	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
<b>Beryllium (mg/L)</b>	<b>YGWC-26S</b>	<b>Yes</b>	<b>0.003,0.003</b>	<b>6/8/2016,3/30/2018</b>	<b>NP</b>	<b>14</b>	<b>0.000565</b>	<b>0.001032</b>	<b>normal</b>	<b>ShapiroWilk</b>
Beryllium (mg/L)	YGWC-27I	No	n/a	n/a	NP	14	0.0007907	0.001198	normal	ShapiroWilk
Beryllium (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Beryllium (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk

## Appendix IV Tukey's Outlier Analysis - All Results

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier Value(s)</u>		<u>Date(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Beryllium (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	14	0.003	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-14S (bg)	n/a	n/a	n/a	NP	14	0.002326	0.0006494	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-1D (bg)	n/a	n/a	n/a	NP	14	0.002336	0.0006147	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-11 (bg)	n/a	n/a	n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-2I (bg)	n/a	n/a	n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-3D (bg)	n/a	n/a	n/a	NP	14	0.002329	0.0006414	unknown	ShapiroWilk
Cadmium (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	14	0.002327	0.0006468	unknown	ShapiroWilk
Cadmium (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWC-26S	n/a	n/a	n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWC-27I	n/a	n/a	n/a	NP	14	0.0025	0	unknown	ShapiroWilk
Cadmium (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	14	0.0025	0	unknown	ShapiroWilk
<b>Cadmium (mg/L)</b>	<b>YGWC-28I</b>	<b>Yes</b>	<b>0.0025,0.0025</b>	<b>3/30/2018,9/26/2019</b>	<b>NP</b>	<b>14</b>	<b>0.0005129</b>	<b>0.0008531</b>	<b>normal</b>	<b>ShapiroWilk</b>
Cadmium (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	14	0.0025	0	unknown	ShapiroWilk
<b>Cadmium (mg/L)</b>	<b>YGWC-29I</b>	<b>Yes</b>	<b>0.001,0.001</b>	<b>6/9/2016,3/29/2018</b>	<b>NP</b>	<b>14</b>	<b>0.0003014</b>	<b>0.0003003</b>	<b>normal</b>	<b>ShapiroWilk</b>
Chromium (mg/L)	YGWA-14S (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Chromium (mg/L)	YGWA-1D (bg)	No	n/a	n/a	NP	14	0.006884	0.004394	normal	ShapiroWilk
Chromium (mg/L)	YGWA-1I (bg)	No	n/a	n/a	NP	14	0.007553	0.004057	normal	ShapiroWilk
Chromium (mg/L)	YGWA-2I (bg)	No	n/a	n/a	NP	14	0.007956	0.004062	normal	ShapiroWilk
Chromium (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	14	0.0094	0.002245	unknown	ShapiroWilk
Chromium (mg/L)	YGWA-3D (bg)	No	n/a	n/a	NP	14	0.008093	0.003794	normal	ShapiroWilk
Chromium (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	14	0.008736	0.003227	unknown	ShapiroWilk
Chromium (mg/L)	YGWC-26I	No	n/a	n/a	NP	14	0.006294	0.004571	normal	ShapiroWilk
Chromium (mg/L)	YGWC-26S	No	n/a	n/a	NP	14	0.003943	0.003491	normal	ShapiroWilk
Chromium (mg/L)	YGWC-27I	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Chromium (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	14	0.009679	0.002959	unknown	ShapiroWilk
Chromium (mg/L)	YGWC-28I	No	n/a	n/a	NP	14	0.007958	0.004058	normal	ShapiroWilk
Chromium (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	14	0.008642	0.003452	unknown	ShapiroWilk
Chromium (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	14	0.009321	0.002539	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-14S (bg)	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-1D (bg)	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-1I (bg)	No	n/a	n/a	NP	16	0.001871	0.001406	normal	ShapiroWilk
Cobalt (mg/L)	YGWA-2I (bg)	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-30I (bg)	No	n/a	n/a	NP	16	0.02335	0.005626	normal	ShapiroWilk
Cobalt (mg/L)	YGWA-3D (bg)	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	16	0.005	0	unknown	ShapiroWilk
Cobalt (mg/L)	YGWC-26S	No	n/a	n/a	NP	16	0.0025	0.0008446	normal	ShapiroWilk
Cobalt (mg/L)	YGWC-27I	No	n/a	n/a	NP	16	0.02107	0.02867	normal	ShapiroWilk
<b>Cobalt (mg/L)</b>	<b>YGWC-27S</b>	<b>Yes</b>	<b>0.005</b>	<b>3/29/2018</b>	<b>NP</b>	<b>16</b>	<b>0.002544</b>	<b>0.0006723</b>	<b>normal</b>	<b>ShapiroWilk</b>
Cobalt (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	16	0.004714	0.001145	unknown	ShapiroWilk
<b>Cobalt (mg/L)</b>	<b>YGWC-28S</b>	<b>Yes</b>	<b>0.005</b>	<b>3/30/2018</b>	<b>NP</b>	<b>16</b>	<b>0.001263</b>	<b>0.001007</b>	<b>normal</b>	<b>ShapiroWilk</b>
Cobalt (mg/L)	YGWC-29I	No	n/a	n/a	NP	16	0.003882	0.002	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-14S (bg)	No	n/a	n/a	NP	16	0.5584	0.4684	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-1D (bg)	No	n/a	n/a	NP	16	0.8898	0.3394	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-1I (bg)	No	n/a	n/a	NP	16	0.7925	0.7051	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-2I (bg)	No	n/a	n/a	NP	16	0.5056	0.2716	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-30I (bg)	No	n/a	n/a	NP	16	0.7335	0.6871	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-3D (bg)	No	n/a	n/a	NP	16	3.386	0.6987	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWA-3I (bg)	No	n/a	n/a	NP	16	1.509	0.8338	normal	ShapiroWilk
<b>Combined Radium 226 + 228 (pCi/L)</b>	<b>YGWC-26I</b>	<b>Yes</b>	<b>6.68</b>	<b>6/8/2016</b>	<b>NP</b>	<b>16</b>	<b>1.223</b>	<b>1.549</b>	<b>normal</b>	<b>ShapiroWilk</b>
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	No	n/a	n/a	NP	16	0.7387	0.2913	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	No	n/a	n/a	NP	16	3.596	1.038	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	No	n/a	n/a	NP	16	0.8785	0.3209	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	No	n/a	n/a	NP	16	0.6106	0.348	normal	ShapiroWilk

## Appendix IV Tukey's Outlier Analysis - All Results

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:28 PM

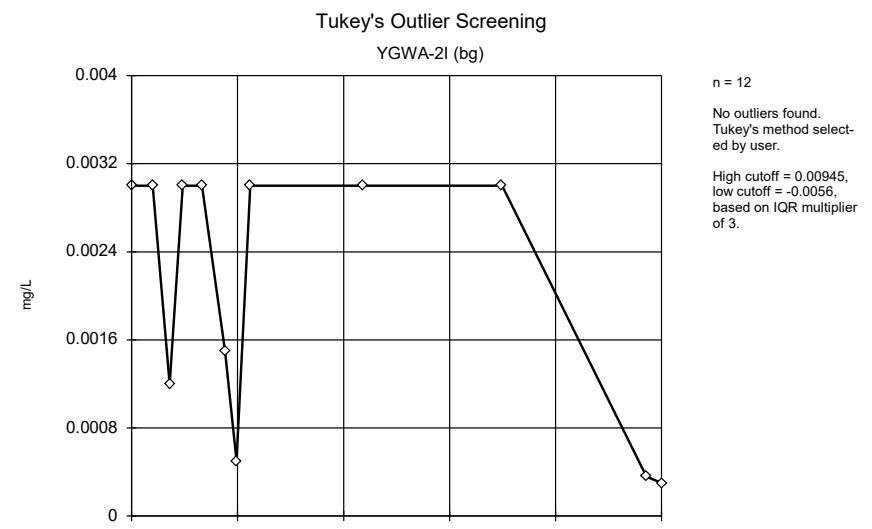
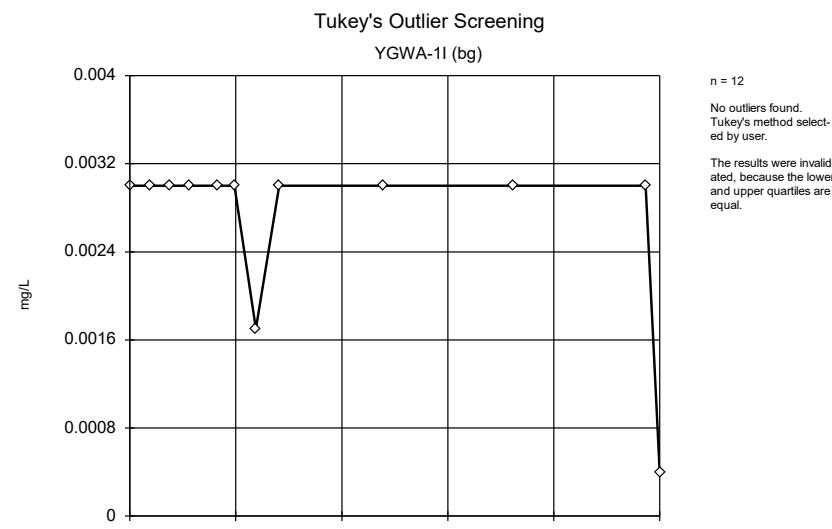
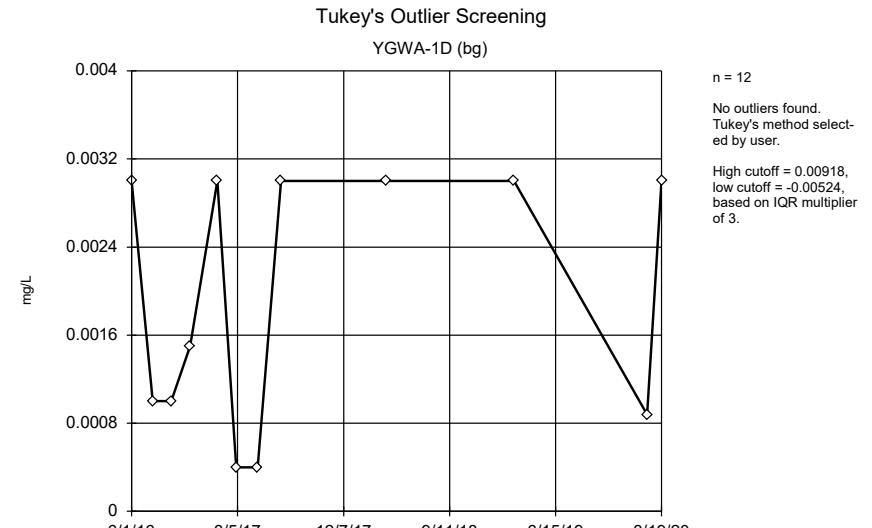
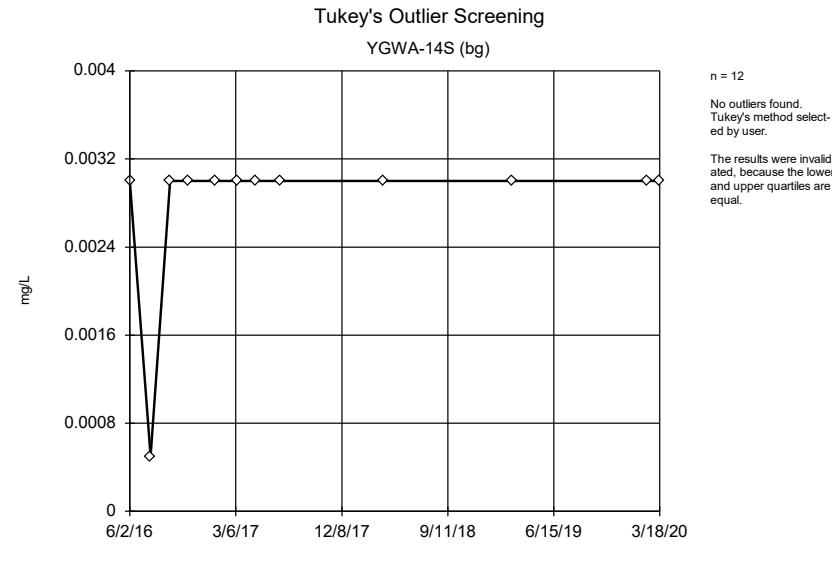
<u>Constituent</u>	<u>Well</u>	<u>Outlier Value(s)</u>	<u>Date(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	No n/a	n/a	NP	16	0.6791	0.365	normal	ShapiroWilk
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	No n/a	n/a	NP	16	0.9488	0.384	normal	ShapiroWilk
Fluoride (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	17	0.2835	0.06791	unknown	ShapiroWilk
Fluoride (mg/L)	YGWA-1D (bg)	No n/a	n/a	NP	17	0.1489	0.117	normal	ShapiroWilk
Fluoride (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	17	0.2688	0.08845	unknown	ShapiroWilk
Fluoride (mg/L)	YGWA-2I (bg)	No n/a	n/a	NP	17	0.1541	0.1002	normal	ShapiroWilk
Fluoride (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	17	0.2859	0.05821	unknown	ShapiroWilk
Fluoride (mg/L)	YGWA-3D (bg)	No n/a	n/a	NP	17	0.5029	0.06789	normal	ShapiroWilk
Fluoride (mg/L)	YGWA-3I (bg)	No n/a	n/a	NP	17	0.1761	0.08801	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-26I	No n/a	n/a	NP	17	0.1822	0.1152	normal	ShapiroWilk
<b>Fluoride (mg/L)</b>	<b>YGWC-26S</b>	<b>Yes 0.03,0.44,0.16,0.044</b>	<b>9/20/2016,11/7/2016,5/3/2017,6/13/2018</b>	<b>NP</b>	<b>17</b>	<b>0.2685</b>	<b>0.1021</b>	<b>normal</b>	<b>ShapiroWilk</b>
Fluoride (mg/L)	YGWC-27I	No n/a	n/a	NP	17	0.2394	0.09945	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-27S	No n/a	n/a	NP	17	0.2113	0.1111	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-28I	No n/a	n/a	NP	17	0.1956	0.1074	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-28S	No n/a	n/a	NP	17	0.2465	0.09239	normal	ShapiroWilk
Fluoride (mg/L)	YGWC-29I	No n/a	n/a	NP	17	0.1693	0.1149	normal	ShapiroWilk
Lead (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	12	0.004592	0.001415	unknown	ShapiroWilk
Lead (mg/L)	YGWA-1D (bg)	No n/a	n/a	NP	12	0.002994	0.002482	normal	ShapiroWilk
Lead (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWA-2I (bg)	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWA-3D (bg)	No n/a	n/a	NP	12	0.003019	0.00245	normal	ShapiroWilk
Lead (mg/L)	YGWA-3I (bg)	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWC-26I	n/a n/a	n/a	NP	12	0.004588	0.001426	unknown	ShapiroWilk
Lead (mg/L)	YGWC-26S	n/a n/a	n/a	NP	12	0.004182	0.001911	unknown	ShapiroWilk
Lead (mg/L)	YGWC-27I	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWC-27S	No n/a	n/a	NP	12	0.003779	0.002209	normal	ShapiroWilk
Lead (mg/L)	YGWC-28I	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lead (mg/L)	YGWC-28S	No n/a	n/a	NP	12	0.003767	0.002231	normal	ShapiroWilk
Lead (mg/L)	YGWC-29I	n/a n/a	n/a	NP	12	0.005	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	16	0.03	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWA-1D (bg)	No n/a	n/a	NP	16	0.01147	0.003797	normal	ShapiroWilk
Lithium (mg/L)	YGWA-1I (bg)	<b>Yes 0.03,0.03,0.03</b>	<b>6/1/2016,9/13/2016,11/4/2016</b>	<b>NP</b>	<b>16</b>	<b>0.007525</b>	<b>0.01115</b>	<b>normal</b>	<b>ShapiroWilk</b>
Lithium (mg/L)	YGWA-2I (bg)	<b>Yes 0.03,0.03</b>	<b>11/4/2016,10/1/2018</b>	<b>NP</b>	<b>16</b>	<b>0.005694</b>	<b>0.00953</b>	<b>normal</b>	<b>ShapiroWilk</b>
Lithium (mg/L)	YGWA-30I (bg)	No n/a	n/a	NP	16	0.01737	0.01479	normal	ShapiroWilk
Lithium (mg/L)	YGWA-3D (bg)	No n/a	n/a	NP	16	0.01969	0.001571	normal	ShapiroWilk
Lithium (mg/L)	YGWA-3I (bg)	No n/a	n/a	NP	16	0.01152	0.001838	normal	ShapiroWilk
Lithium (mg/L)	YGWC-26I	No n/a	n/a	NP	16	0.006738	0.000438	normal	ShapiroWilk
Lithium (mg/L)	YGWC-26S	n/a n/a	n/a	NP	16	0.03	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWC-27I	No n/a	n/a	NP	16	0.009631	0.001871	normal	ShapiroWilk
Lithium (mg/L)	YGWC-27S	n/a n/a	n/a	NP	16	0.03	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWC-28I	No n/a	n/a	NP	16	0.006881	0.0003449	normal	ShapiroWilk
Lithium (mg/L)	YGWC-28S	n/a n/a	n/a	NP	16	0.03	0	unknown	ShapiroWilk
Lithium (mg/L)	YGWC-29I	No n/a	n/a	NP	16	0.006056	0.0008839	normal	ShapiroWilk
Mercury (mg/L)	YGWA-14S (bg)	n/a n/a	n/a	NP	13	0.0004662	0.0001218	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-1D (bg)	n/a n/a	n/a	NP	13	0.0004301	0.0001707	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-1I (bg)	n/a n/a	n/a	NP	13	0.0004657	0.0001237	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-2I (bg)	n/a n/a	n/a	NP	13	0.0005	0	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-30I (bg)	n/a n/a	n/a	NP	13	0.0004346	0.0001596	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-3D (bg)	n/a n/a	n/a	NP	13	0.0004352	0.0001583	unknown	ShapiroWilk
Mercury (mg/L)	YGWA-3I (bg)	n/a n/a	n/a	NP	13	0.0004342	0.0001606	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-26I	n/a n/a	n/a	NP	13	0.0004309	0.0001686	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-26S	n/a n/a	n/a	NP	13	0.0004319	0.0001662	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-27I	n/a n/a	n/a	NP	13	0.0004307	0.0001692	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-27S	n/a n/a	n/a	NP	13	0.00043	0.0001709	unknown	ShapiroWilk

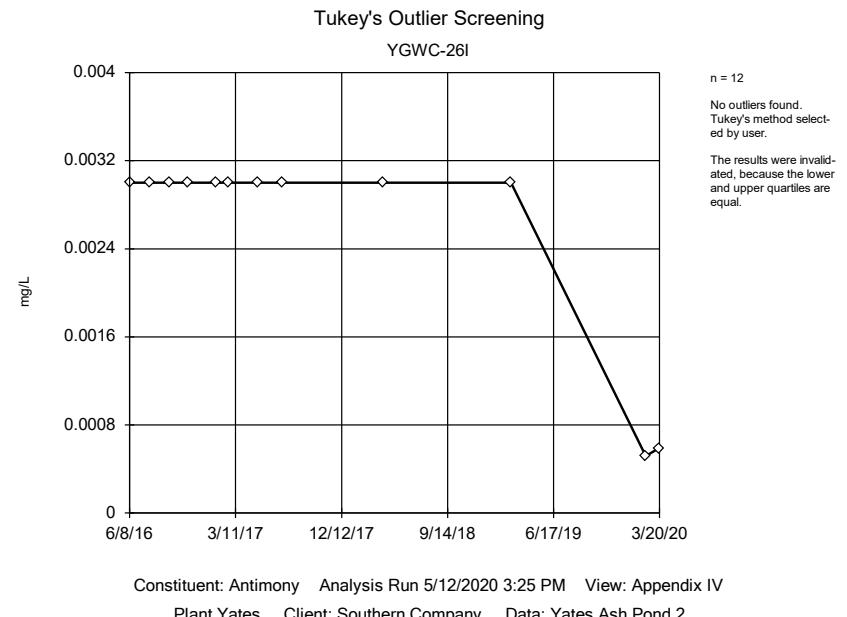
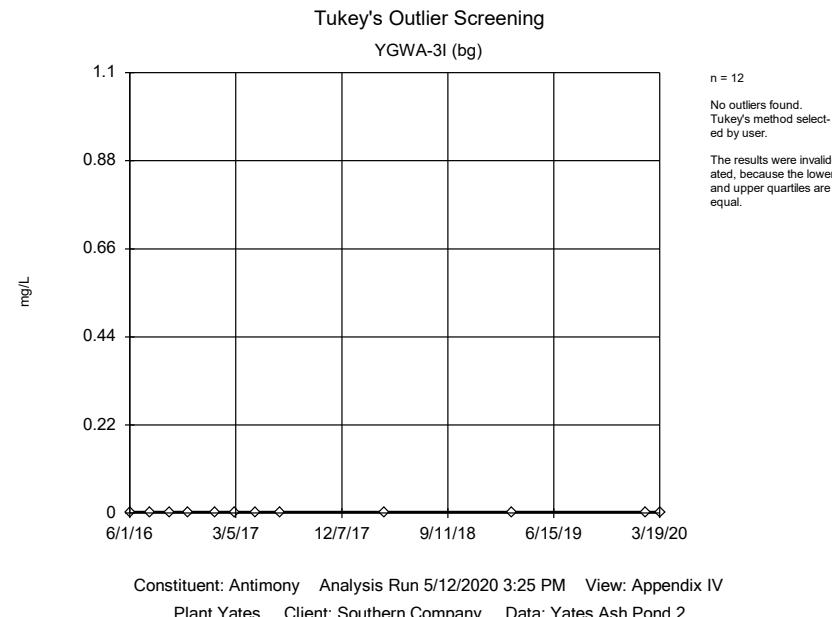
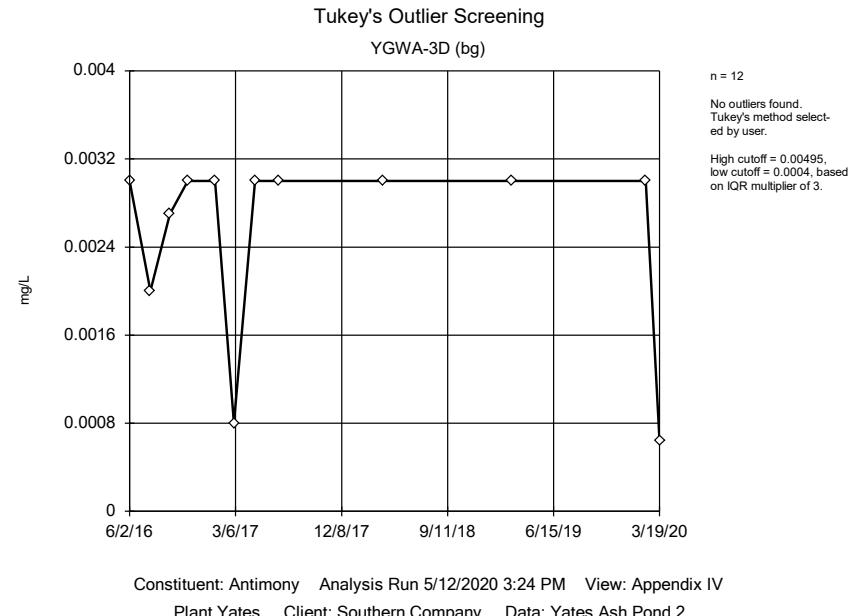
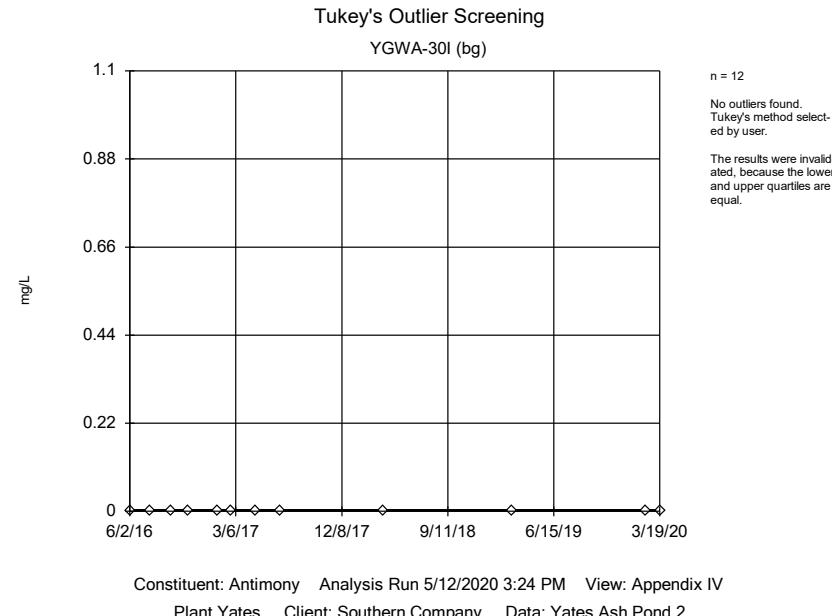
## Appendix IV Tukey's Outlier Analysis - All Results

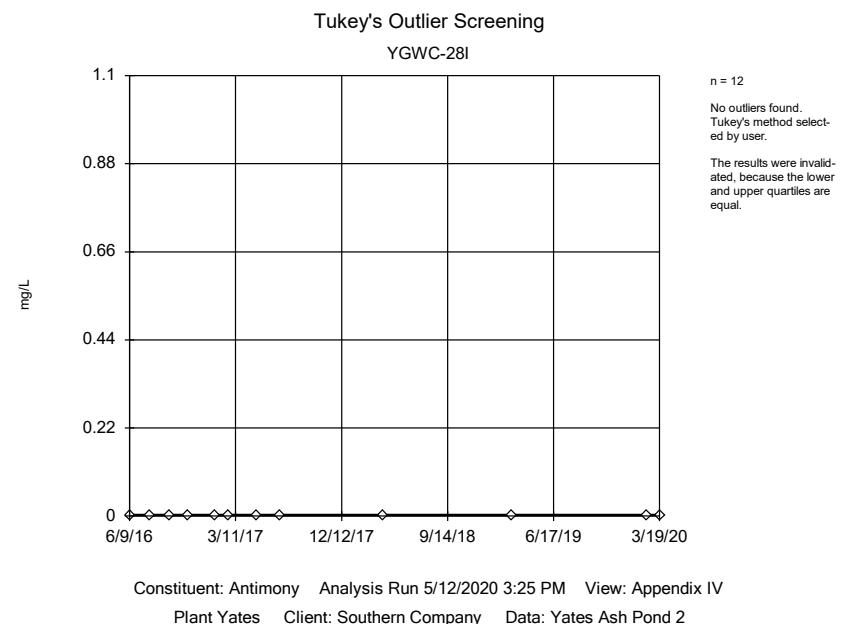
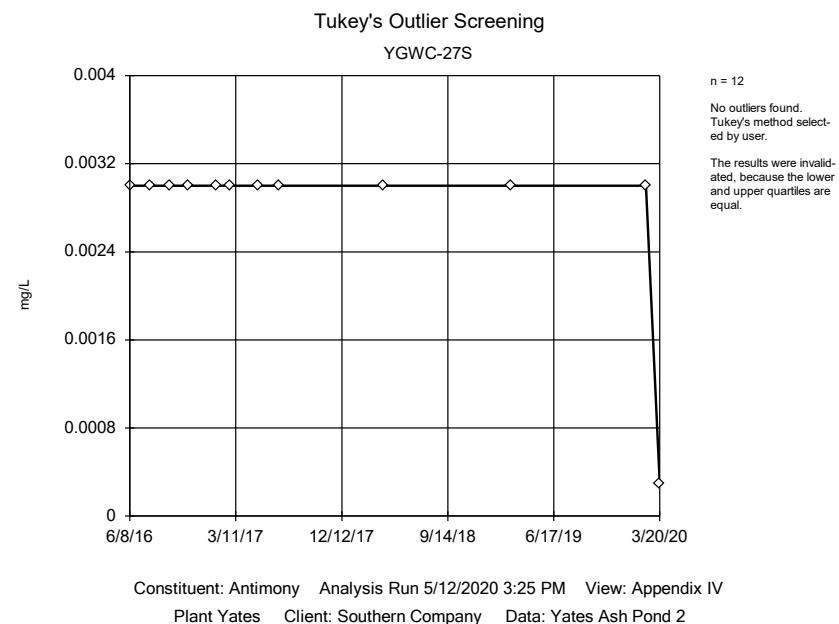
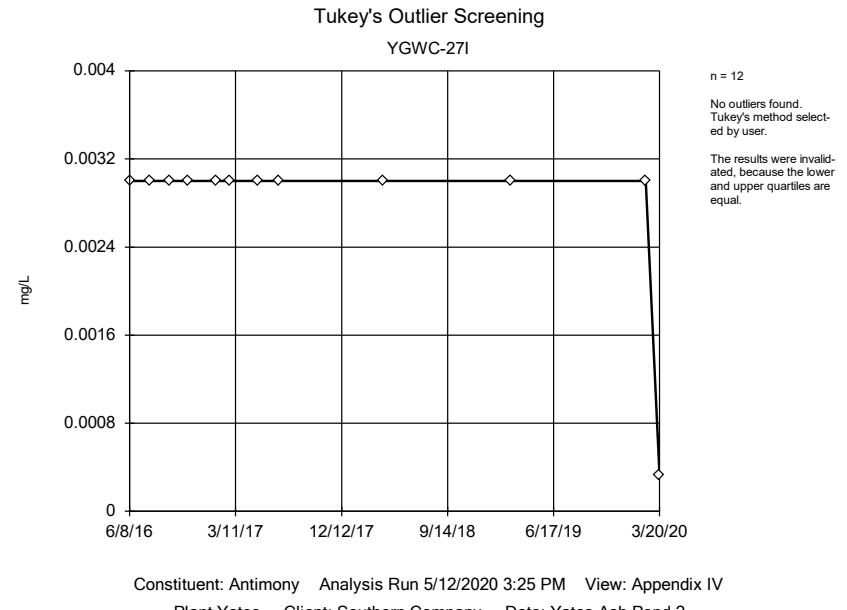
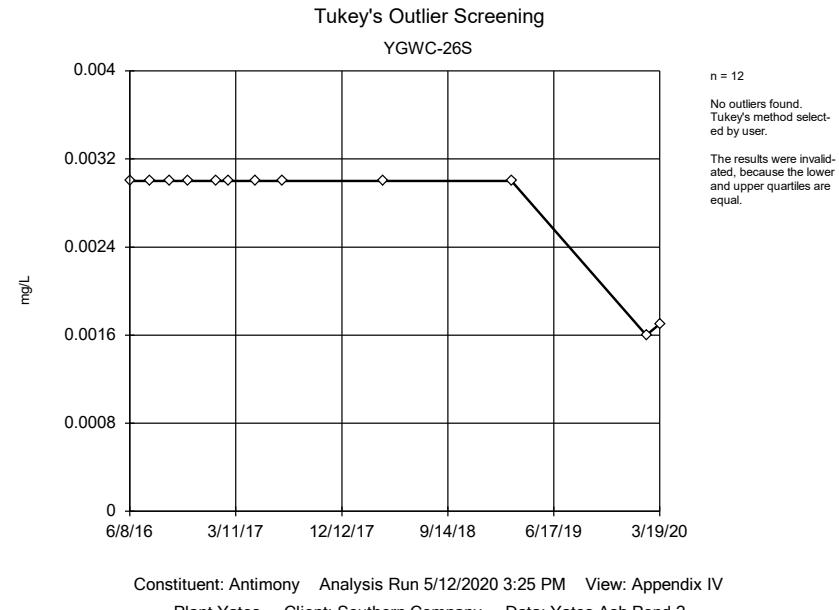
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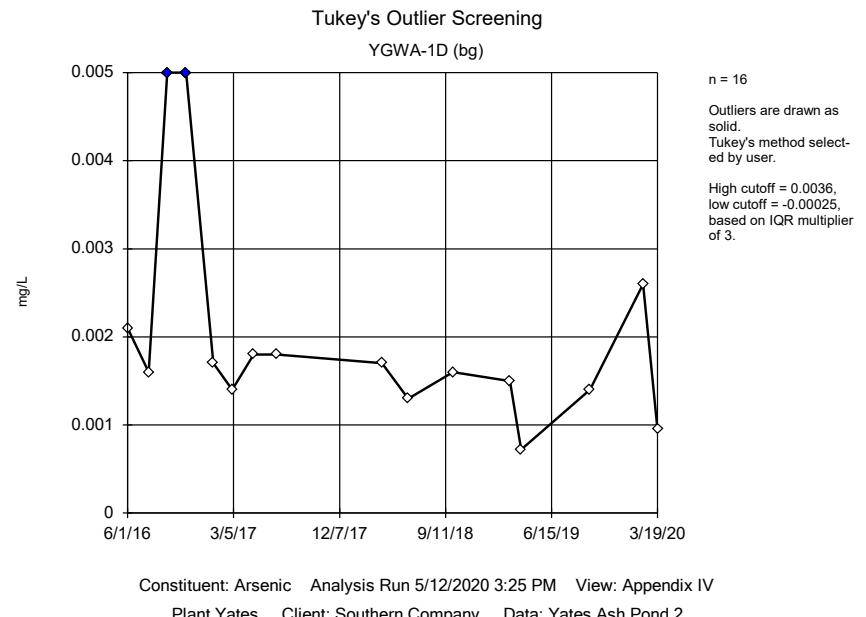
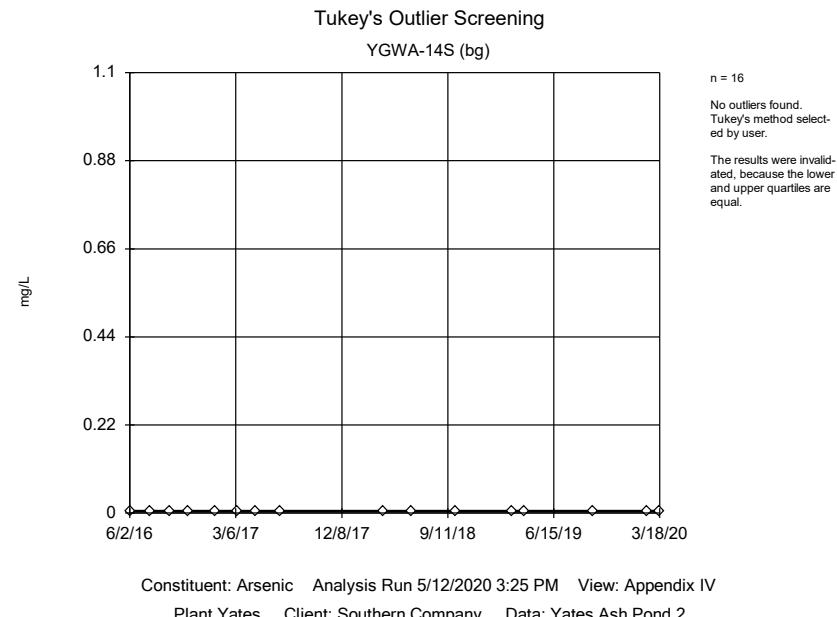
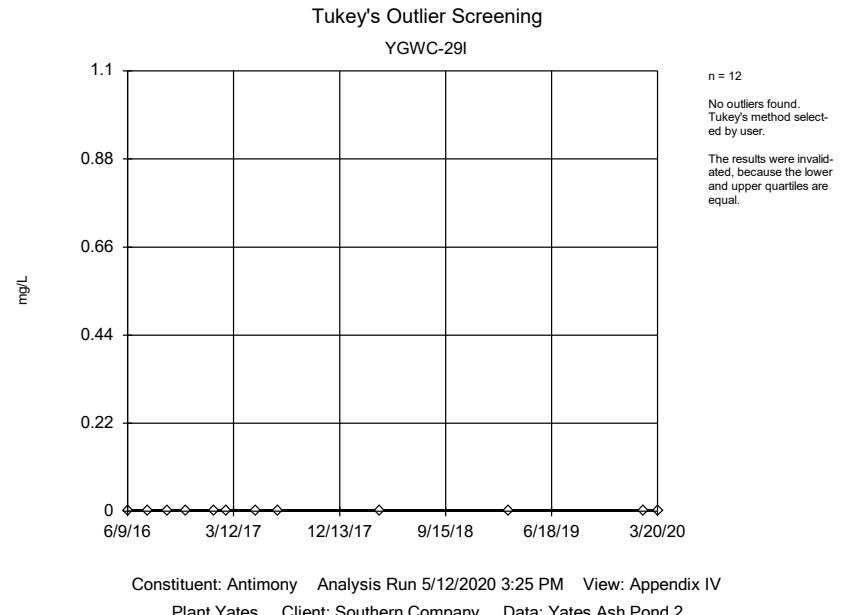
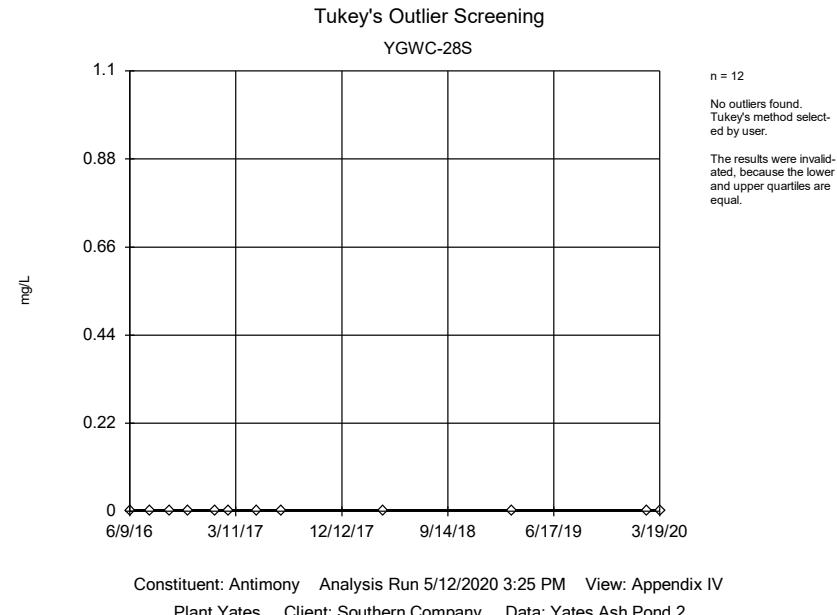
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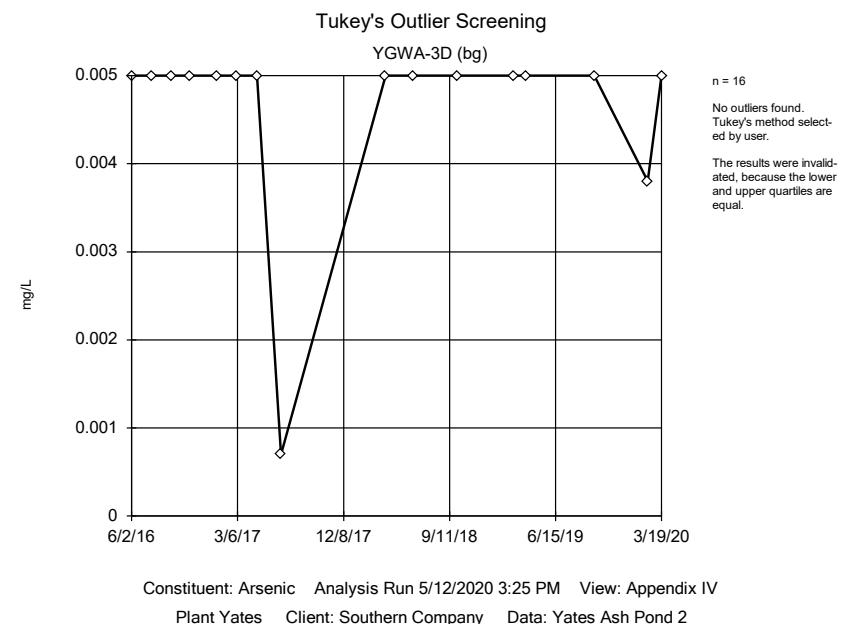
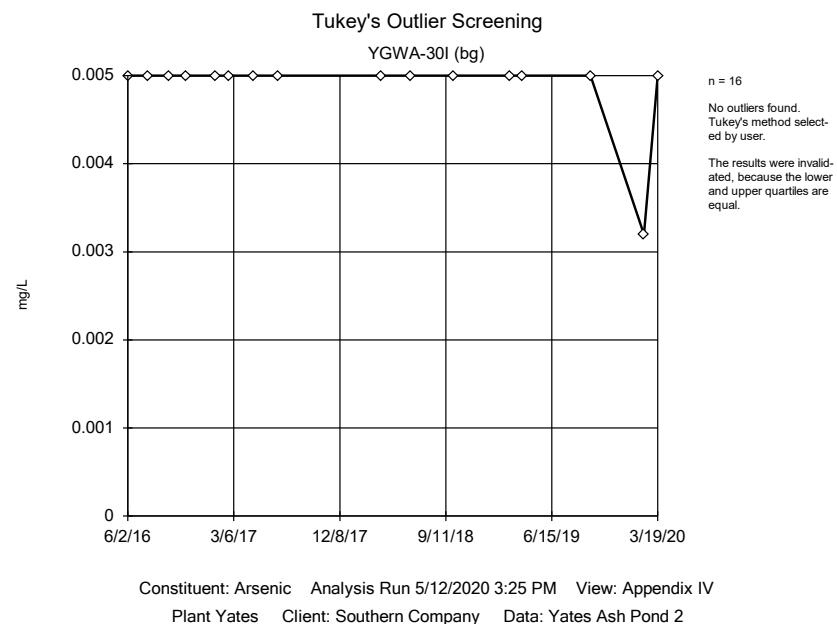
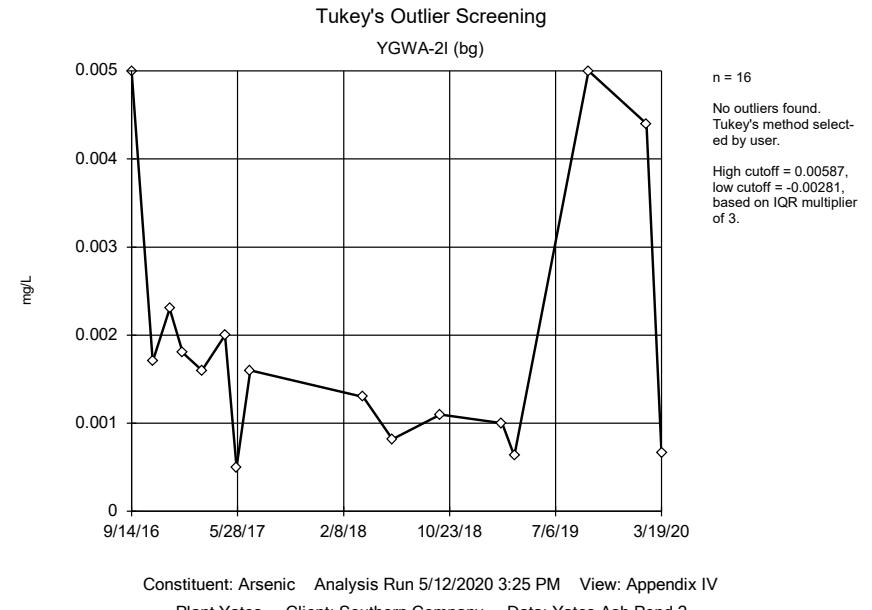
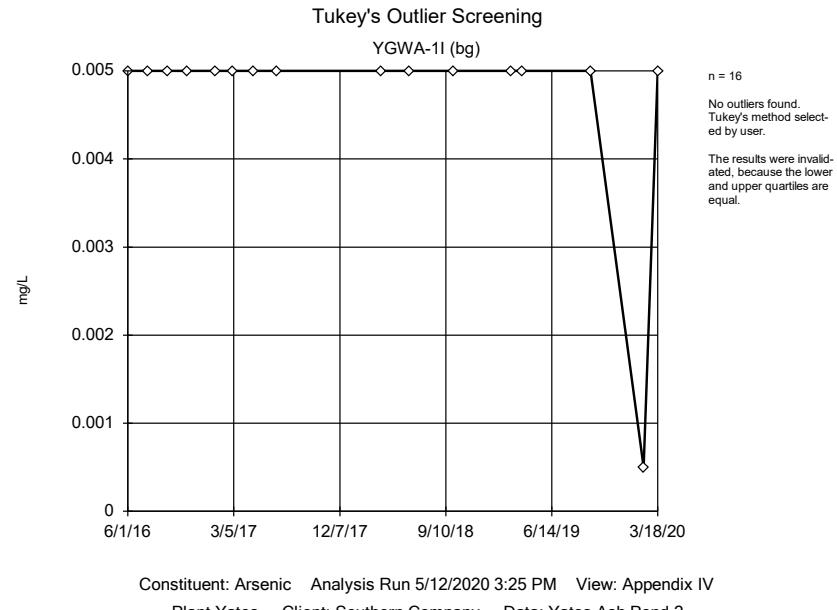
<u>Constituent</u>	<u>Well</u>	<u>Outlier Value(s)</u>		<u>Date(s)</u>	<u>Method</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Mercury (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	13	0.0004652	0.0001254	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	13	0.0004655	0.0001243	unknown	ShapiroWilk
Mercury (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	13	0.0004297	0.0001716	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWA-14S (bg)	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWA-1D (bg)	No	n/a	n/a	NP	16	0.009763	0.00193	normal	ShapiroWilk
Molybdenum (mg/L)	YGWA-1I (bg)	No	n/a	n/a	NP	16	0.008581	0.001688	normal	ShapiroWilk
Molybdenum (mg/L)	YGWA-2I (bg)	No	n/a	n/a	NP	16	0.004694	0.001233	normal	ShapiroWilk
Molybdenum (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWA-3D (bg)	No	n/a	n/a	NP	16	0.01103	0.001161	normal	ShapiroWilk
Molybdenum (mg/L)	YGWA-3I (bg)	No	n/a	n/a	NP	16	0.004338	0.002047	normal	ShapiroWilk
Molybdenum (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWC-26S	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWC-27I	No	n/a	n/a	NP	16	0.006756	0.004328	normal	ShapiroWilk
Molybdenum (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWC-28I	No	n/a	n/a	NP	16	0.006206	0.004443	normal	ShapiroWilk
Molybdenum (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	16	0.008831	0.003194	unknown	ShapiroWilk
Molybdenum (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	16	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-14S (bg)	No	n/a	n/a	NP	14	0.006943	0.00426	normal	ShapiroWilk
Selenium (mg/L)	YGWA-1D (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-1I (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-2I (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-3D (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
<b>Selenium (mg/L)</b>	<b>YGWC-26I</b>	<b>Yes</b>	<b>0.01,0.01</b>	<b>5/8/2017,3/30/2018</b>	<b>NP</b>	<b>14</b>	<b>0.003071</b>	<b>0.002941</b>	<b>normal</b>	<b>ShapiroWilk</b>
Selenium (mg/L)	YGWC-26S	No	n/a	n/a	NP	14	0.00745	0.004192	normal	ShapiroWilk
Selenium (mg/L)	YGWC-27I	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWC-27S	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Selenium (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	14	0.009371	0.002352	unknown	ShapiroWilk
Selenium (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	14	0.009357	0.002405	unknown	ShapiroWilk
Selenium (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	14	0.01	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-14S (bg)	n/a	n/a	n/a	NP	12	0.0009241	0.000263	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-1D (bg)	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-1I (bg)	n/a	n/a	n/a	NP	12	0.0009213	0.0002728	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-2I (bg)	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-30I (bg)	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-3D (bg)	n/a	n/a	n/a	NP	12	0.000925	0.0002598	unknown	ShapiroWilk
Thallium (mg/L)	YGWA-3I (bg)	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-26I	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
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Thallium (mg/L)	YGWC-27I	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-27S	No	n/a	n/a	NP	12	0.0005525	0.0004674	normal	ShapiroWilk
Thallium (mg/L)	YGWC-28I	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-28S	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk
Thallium (mg/L)	YGWC-29I	n/a	n/a	n/a	NP	12	0.001	0	unknown	ShapiroWilk

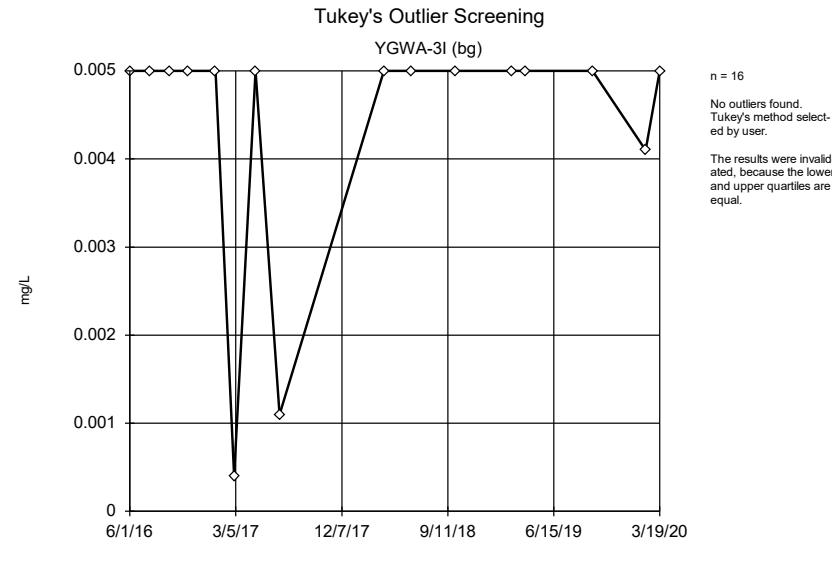




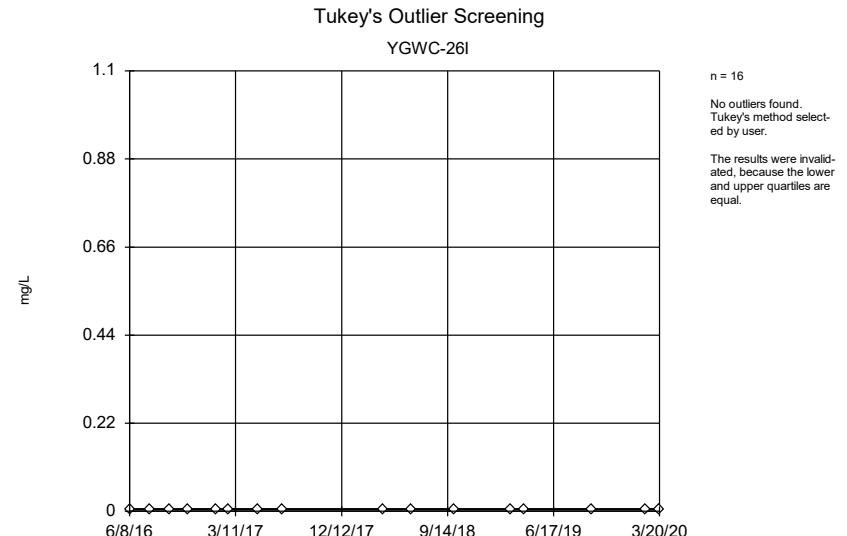




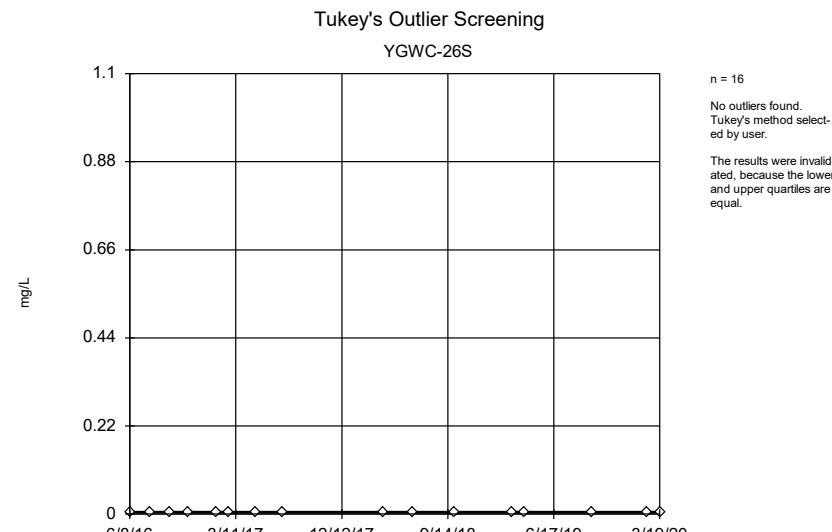




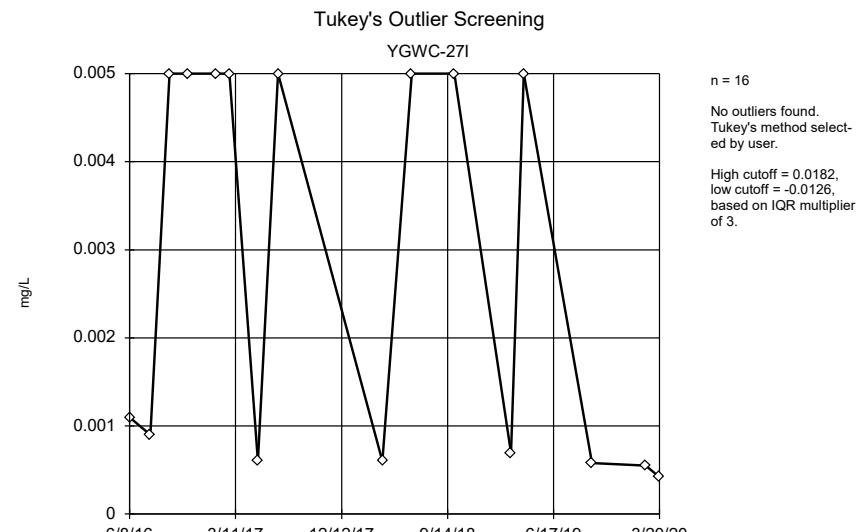
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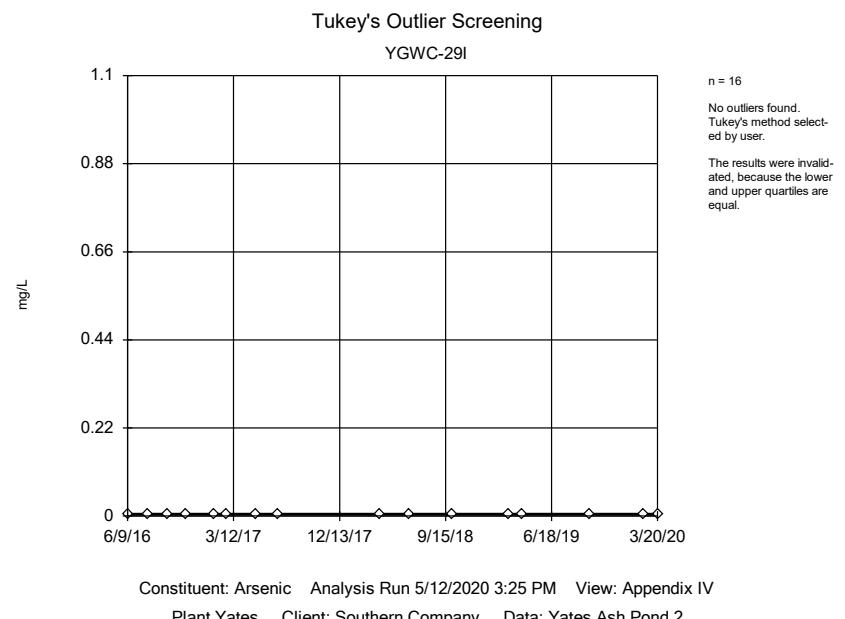
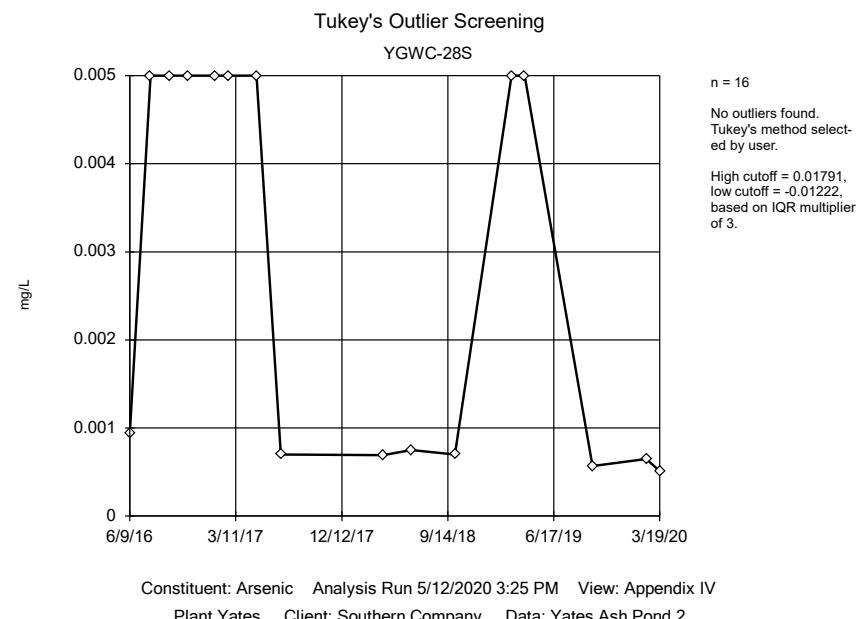
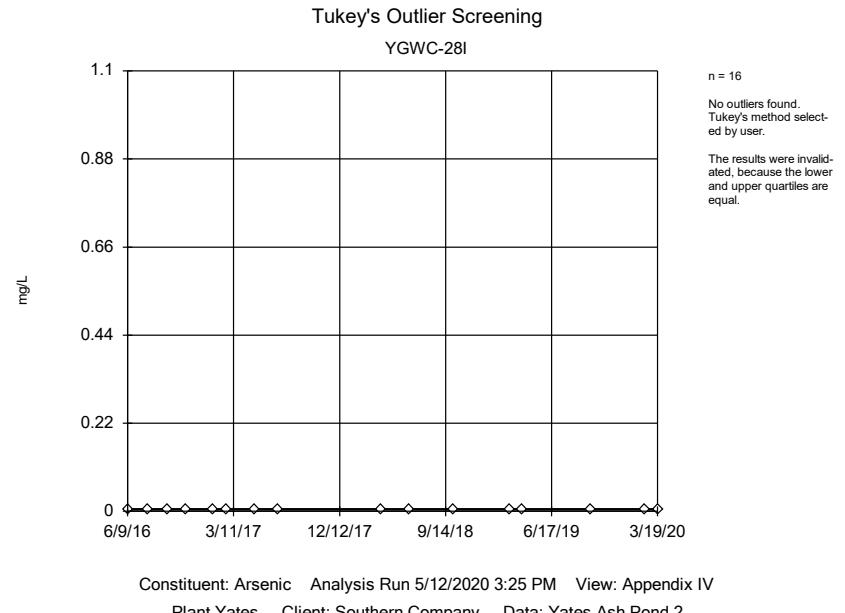
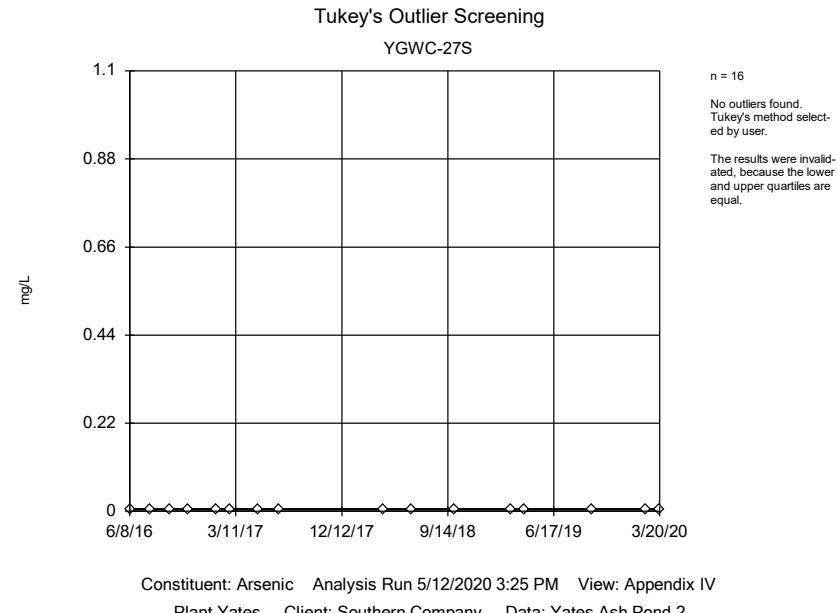
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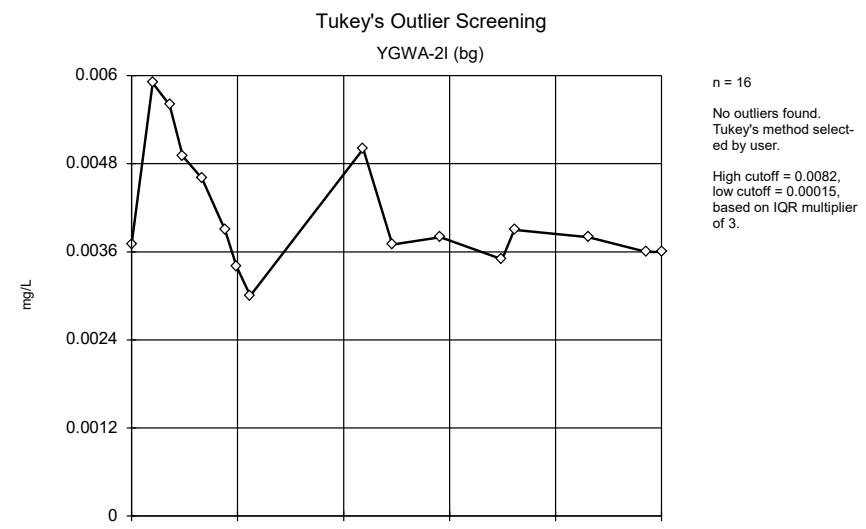
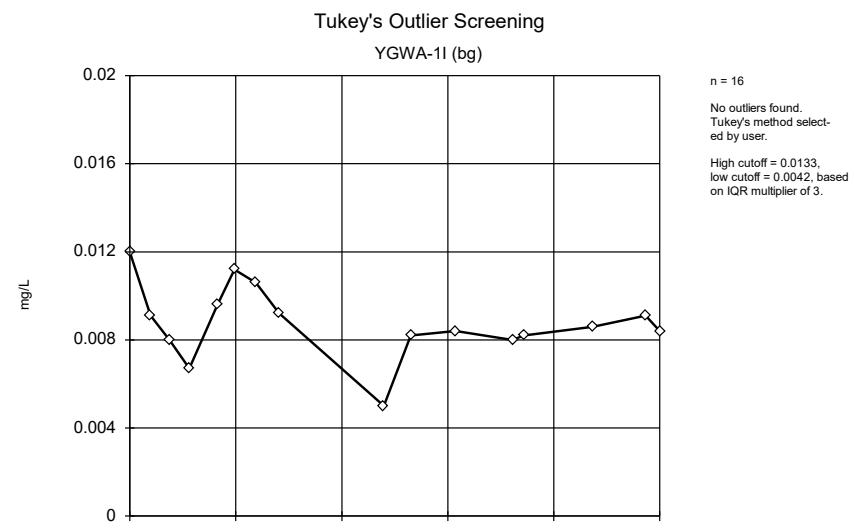
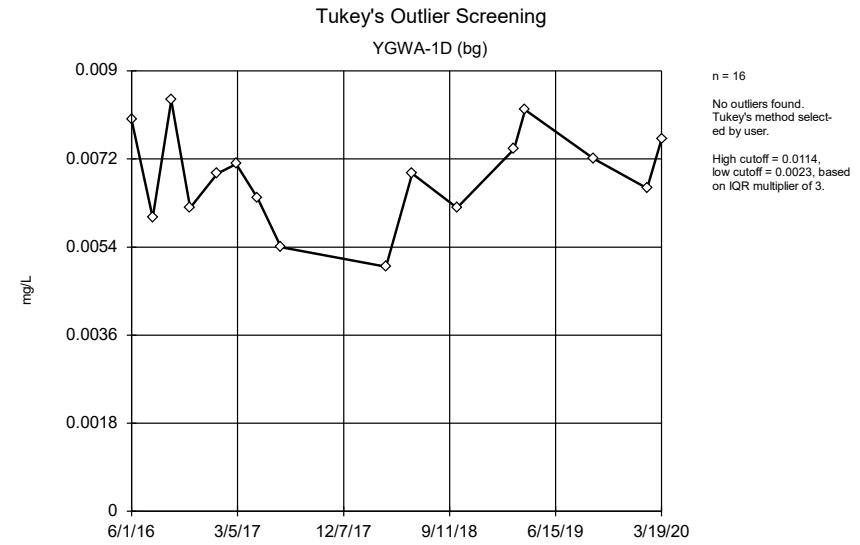
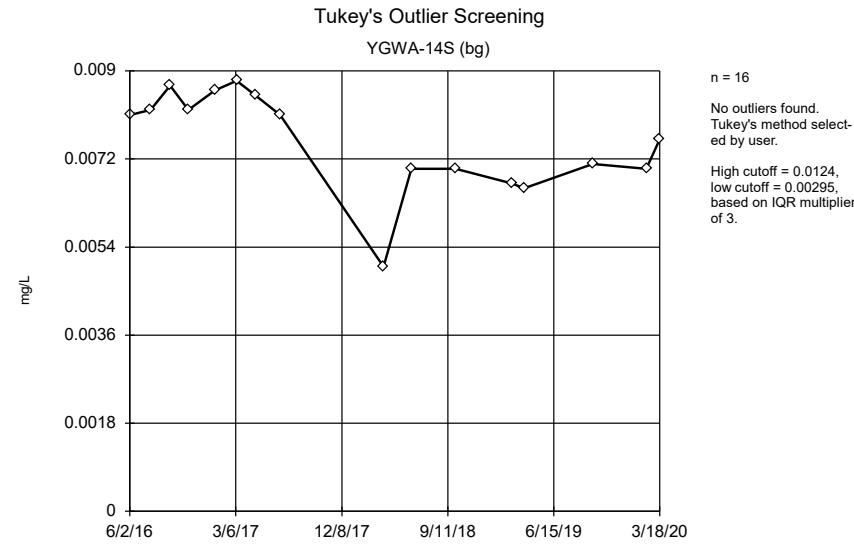


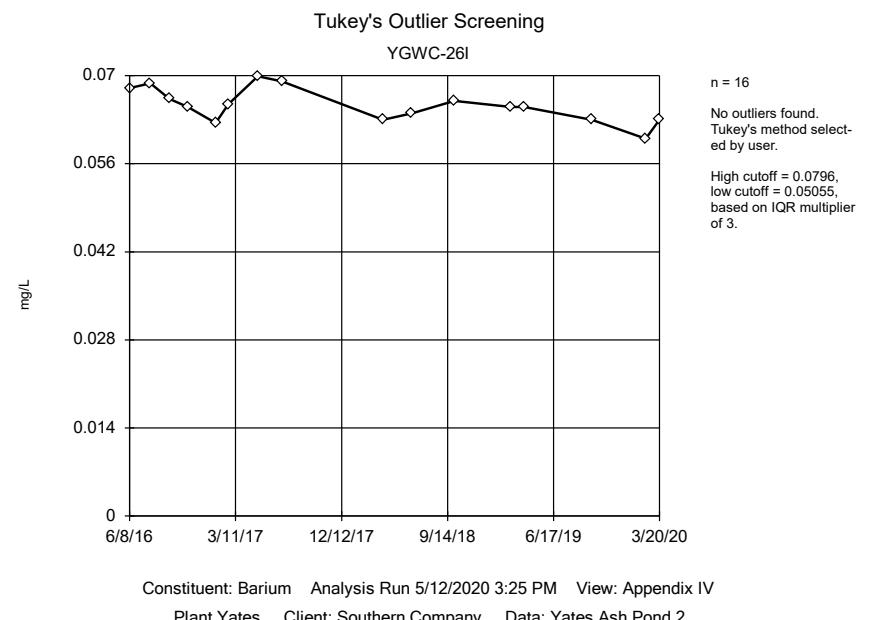
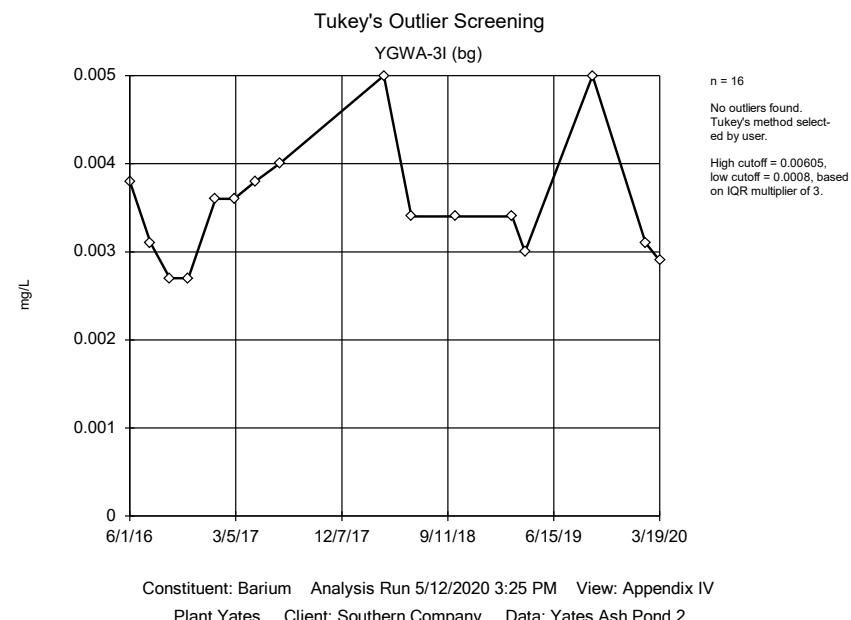
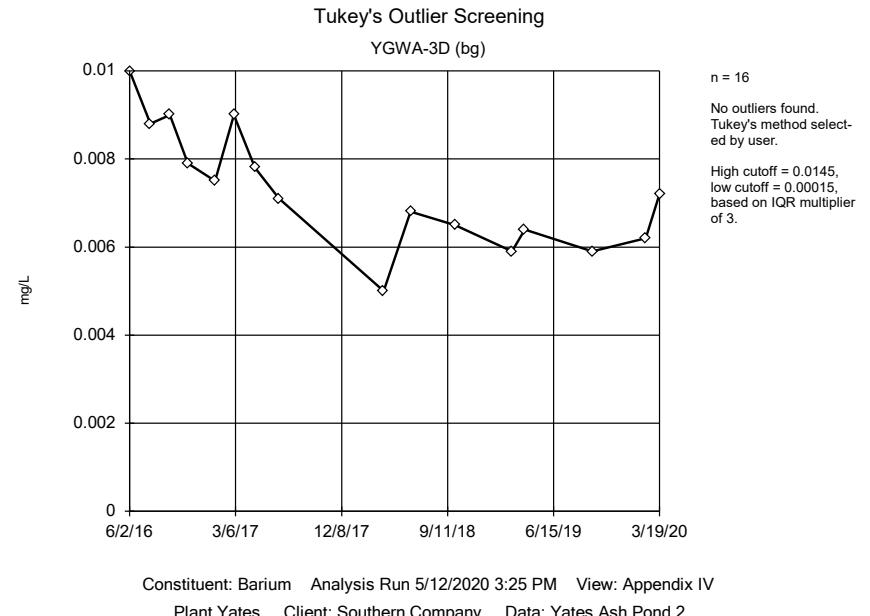
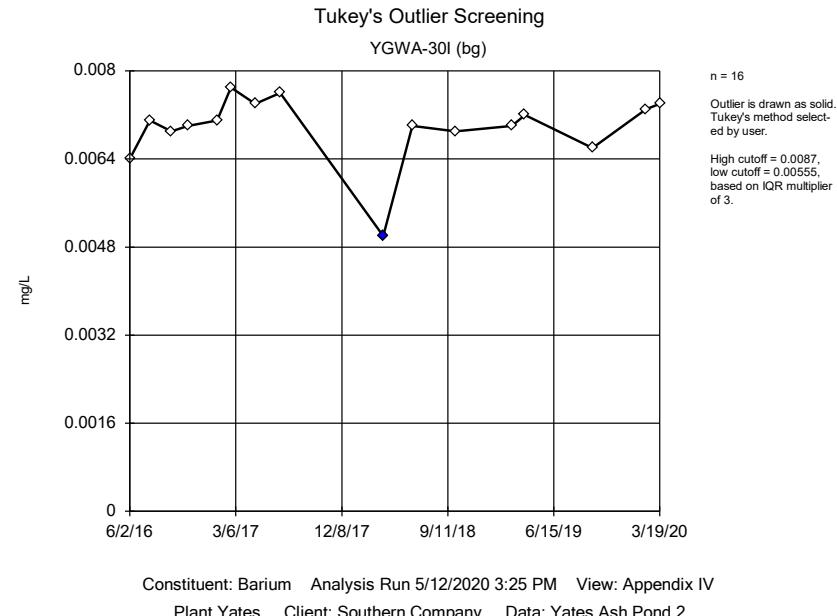
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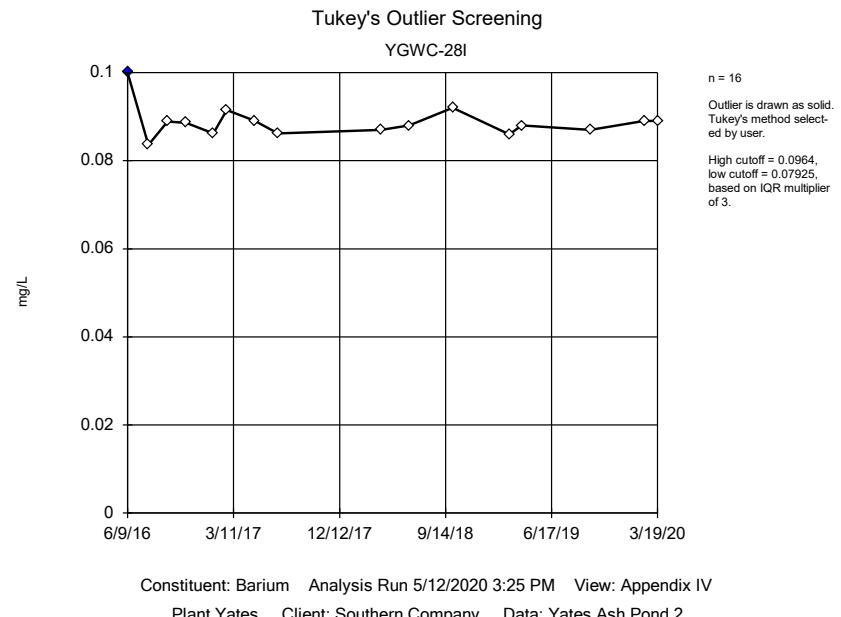
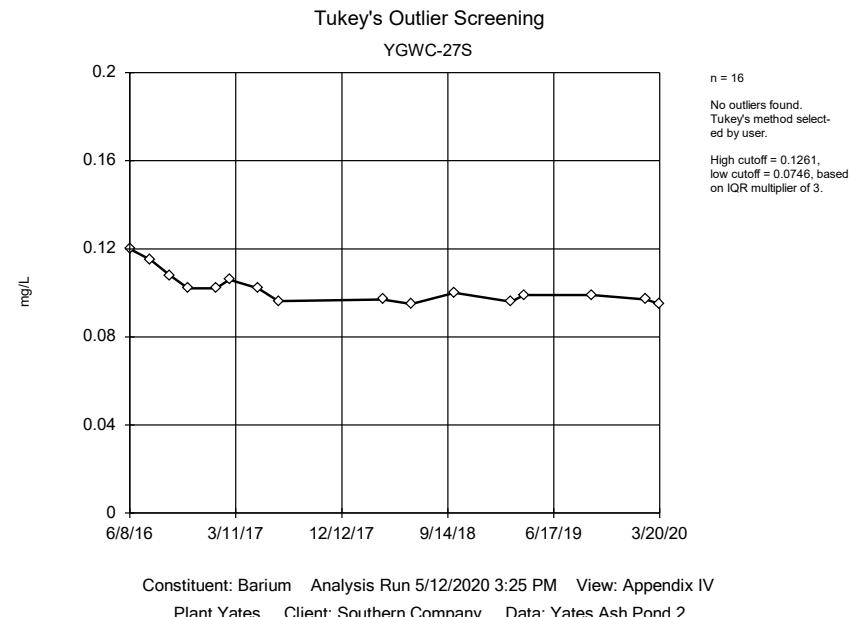
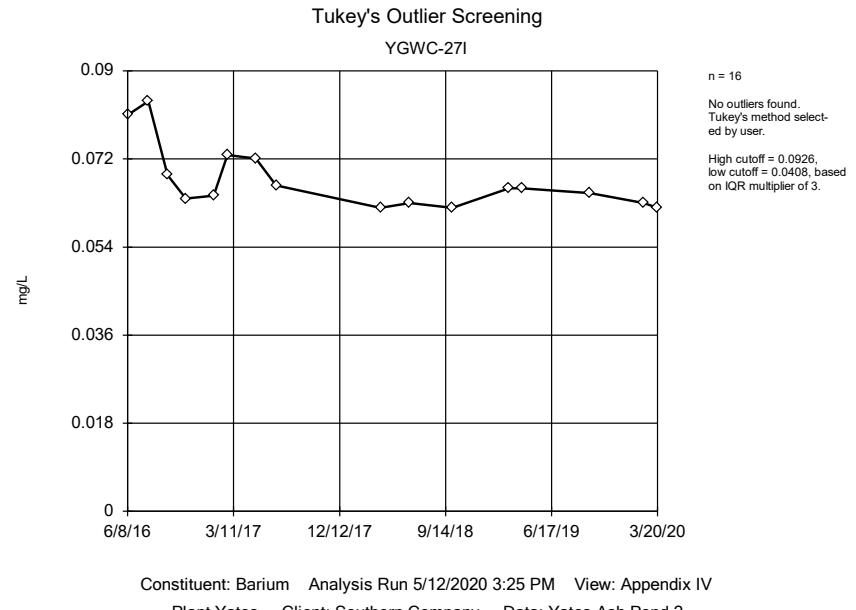
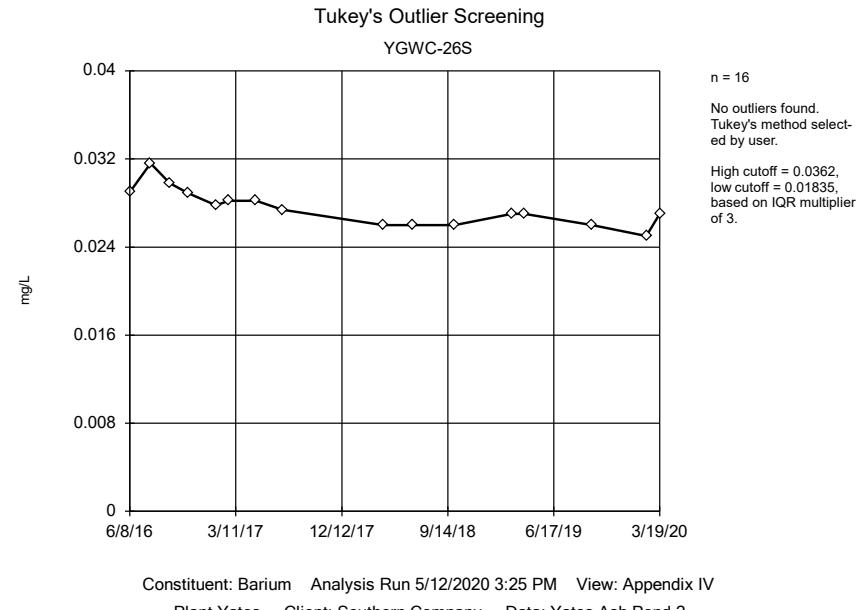


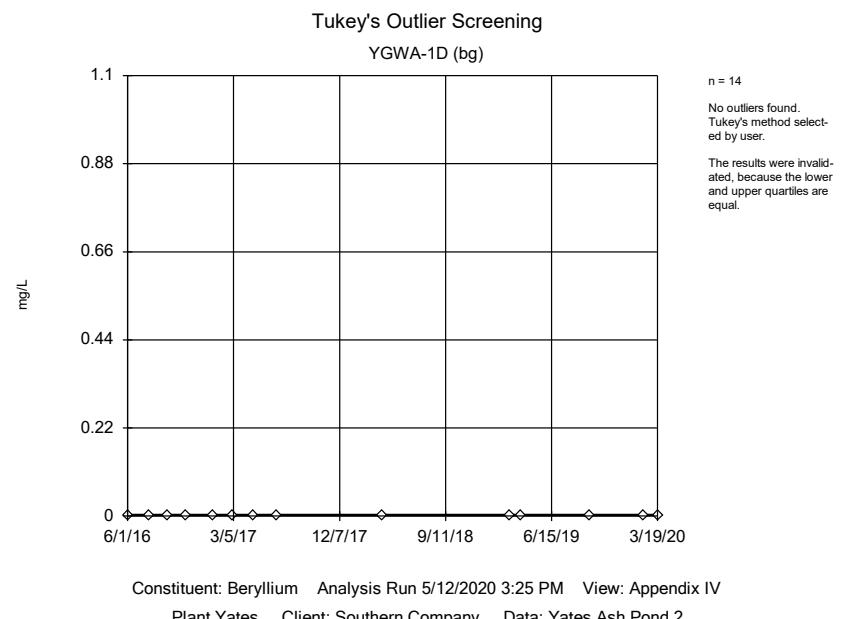
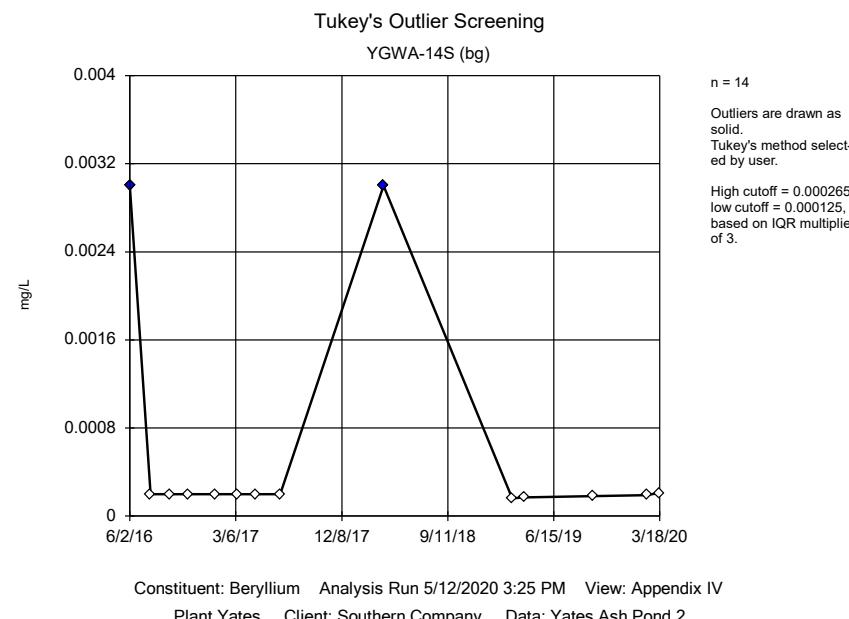
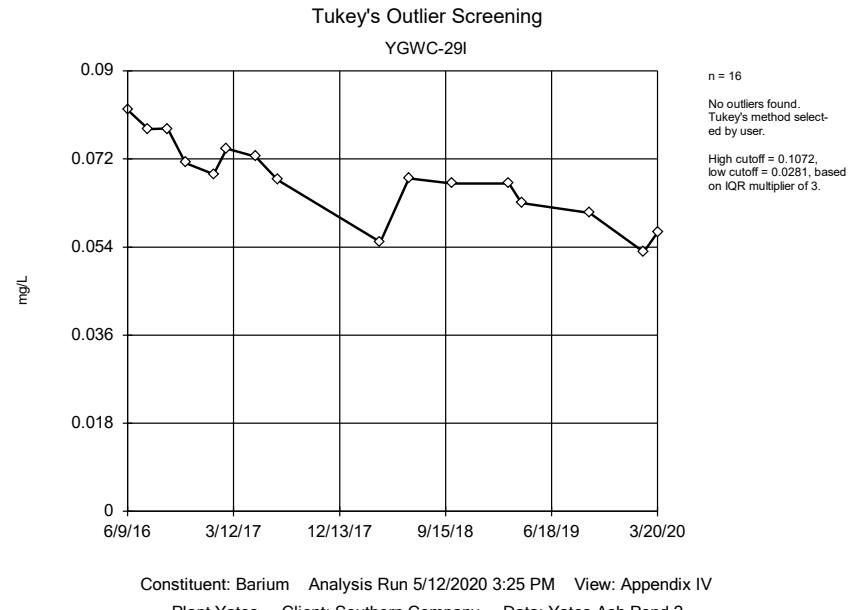
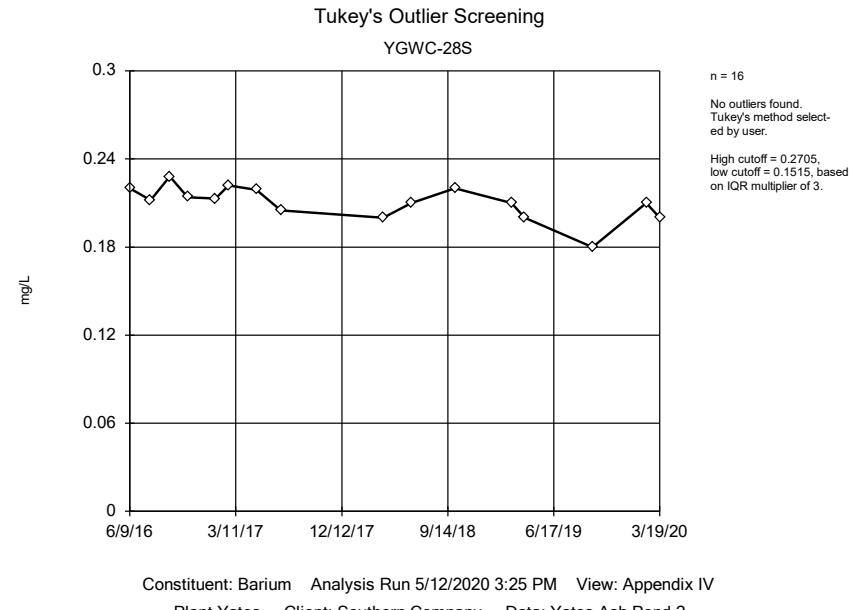
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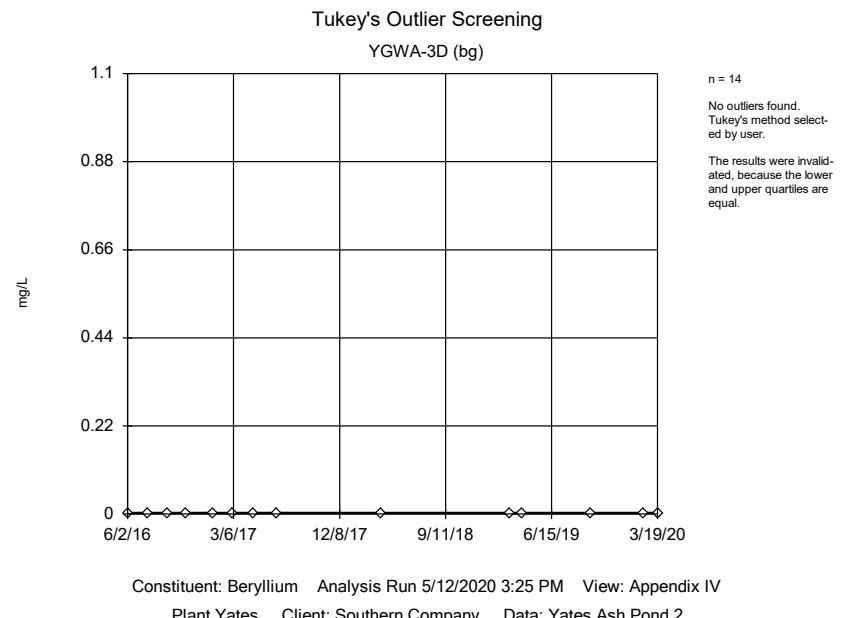
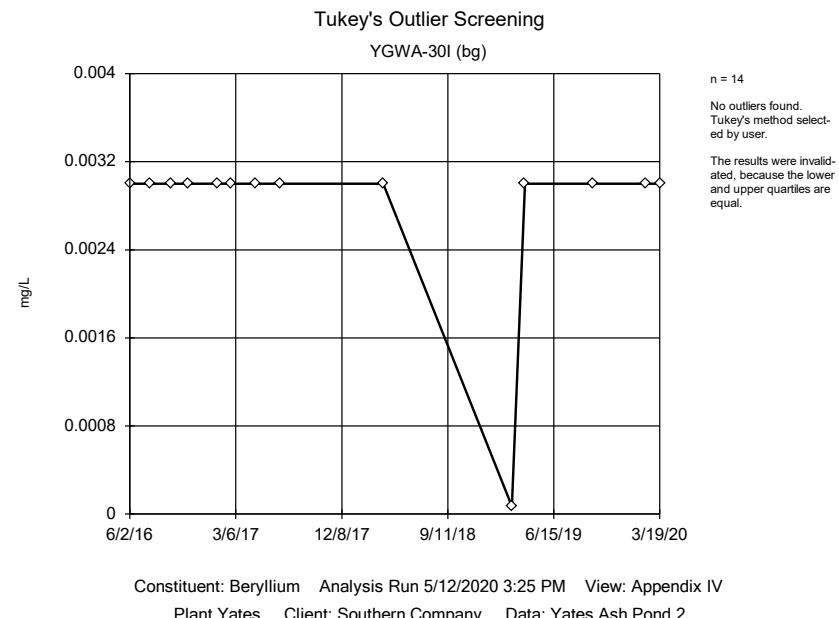
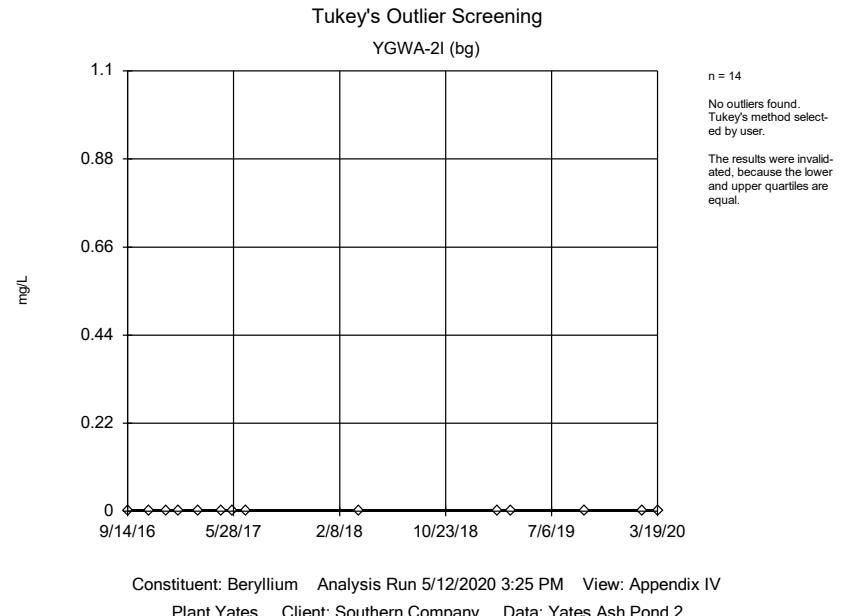
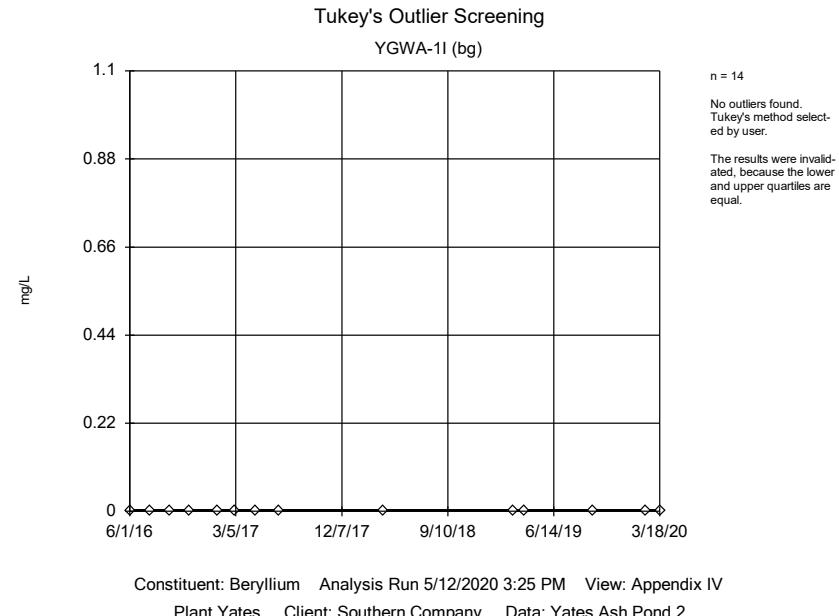


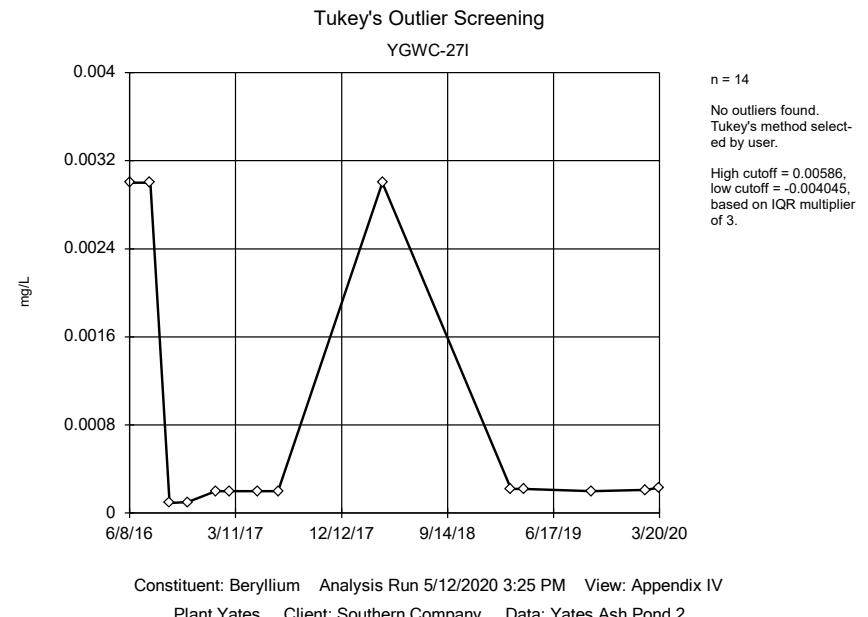
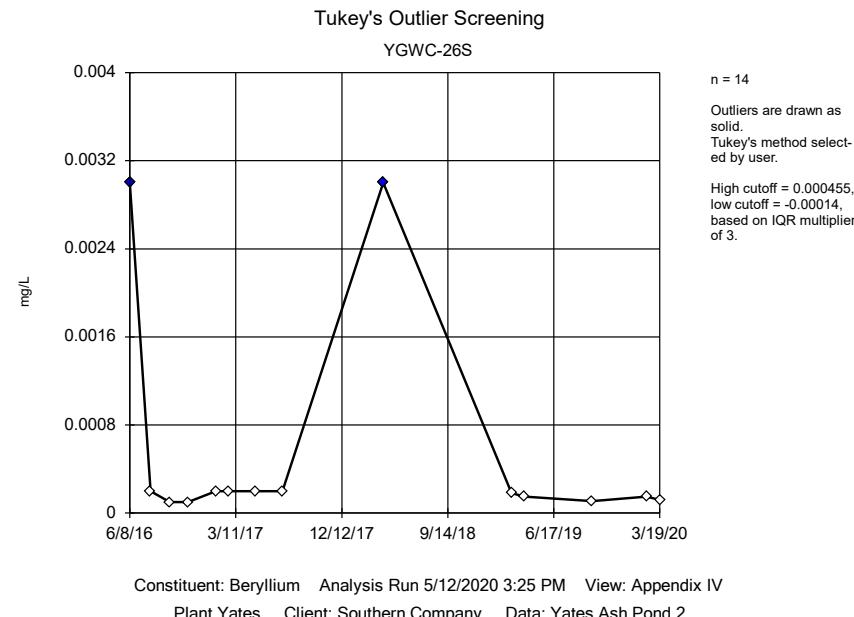
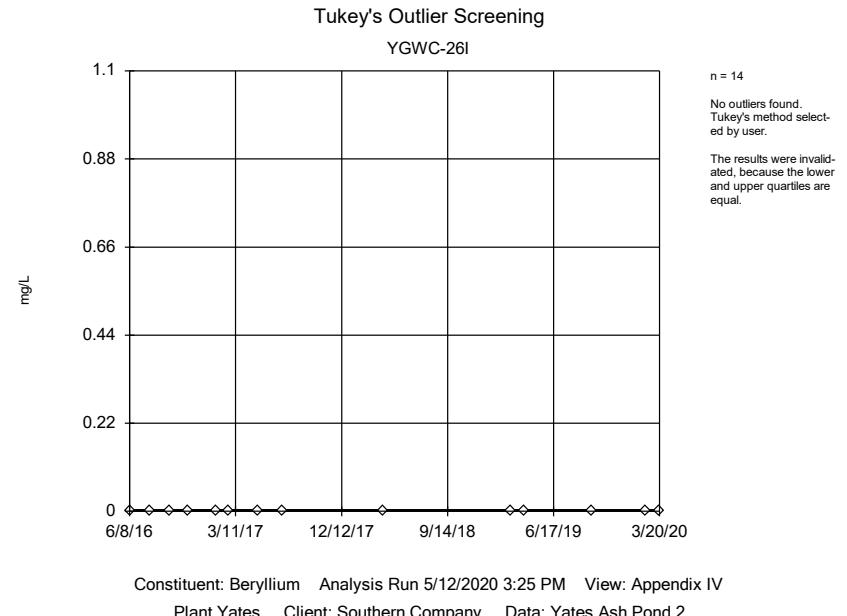
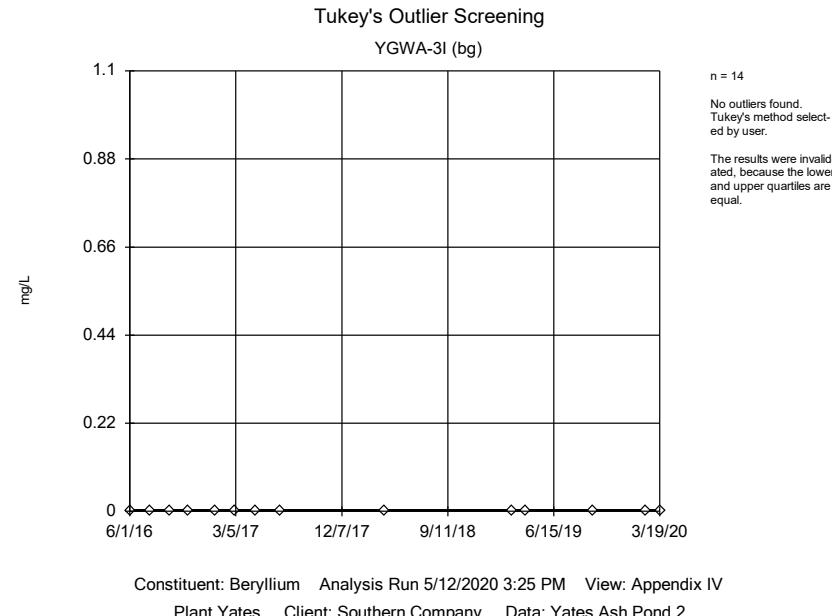


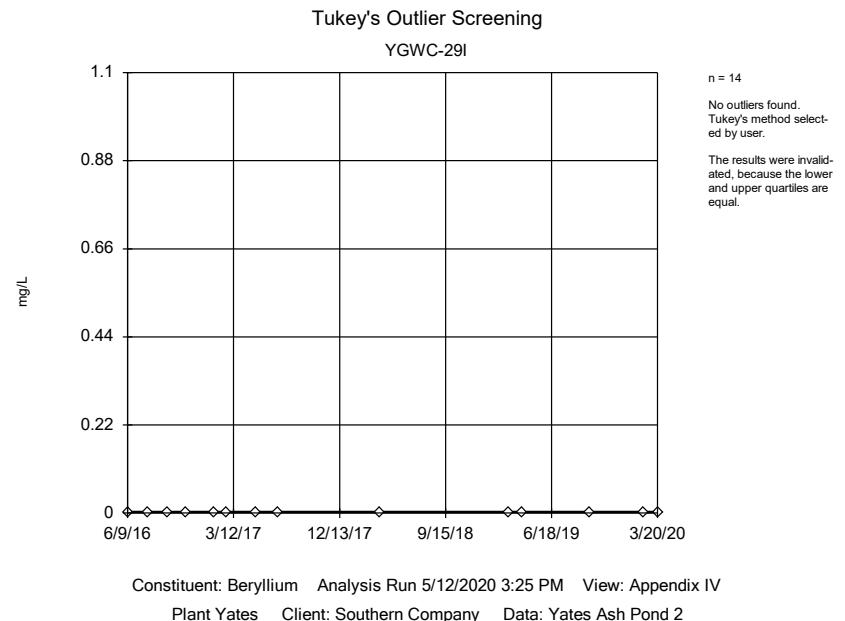
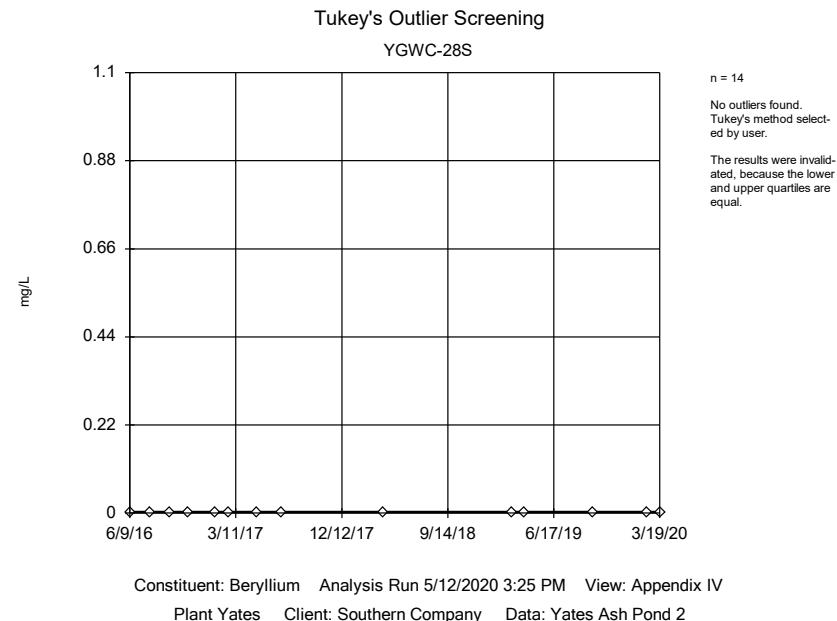
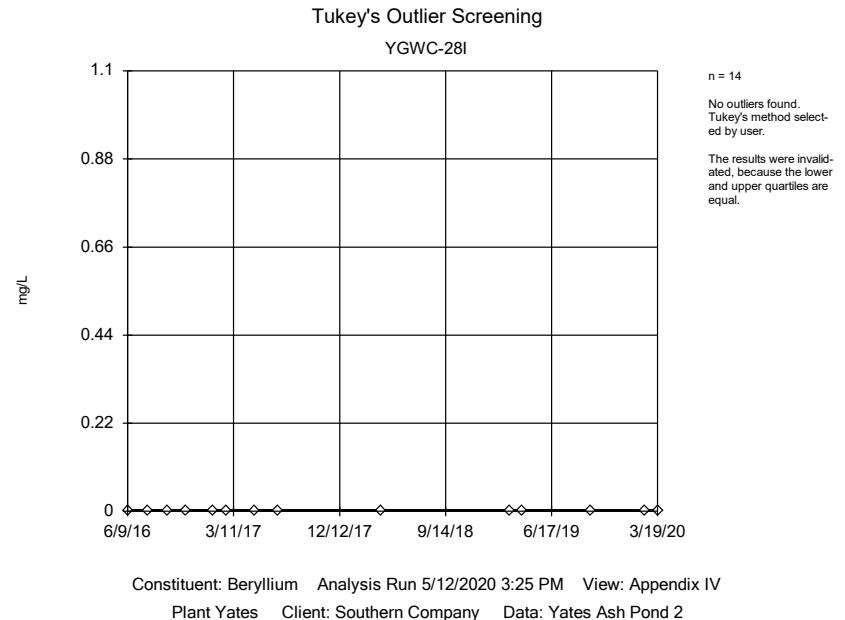
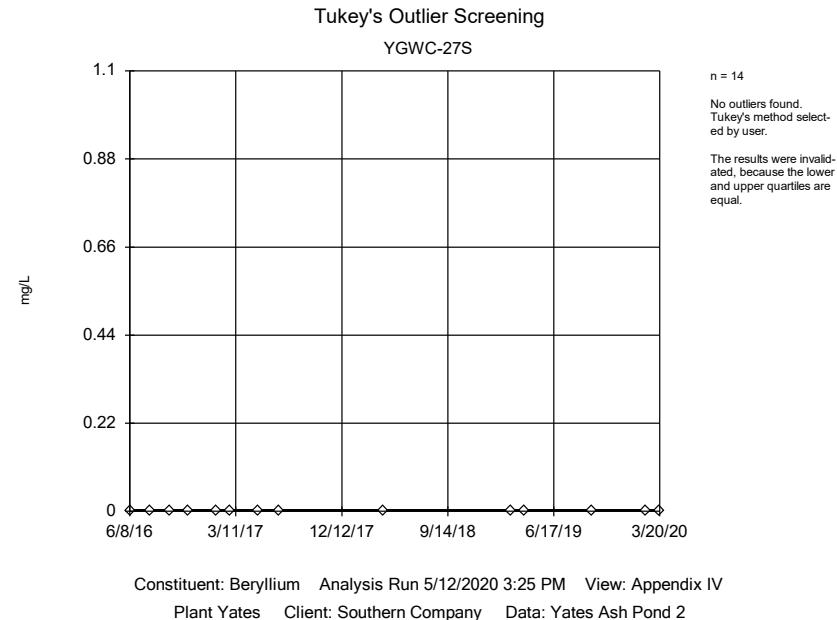


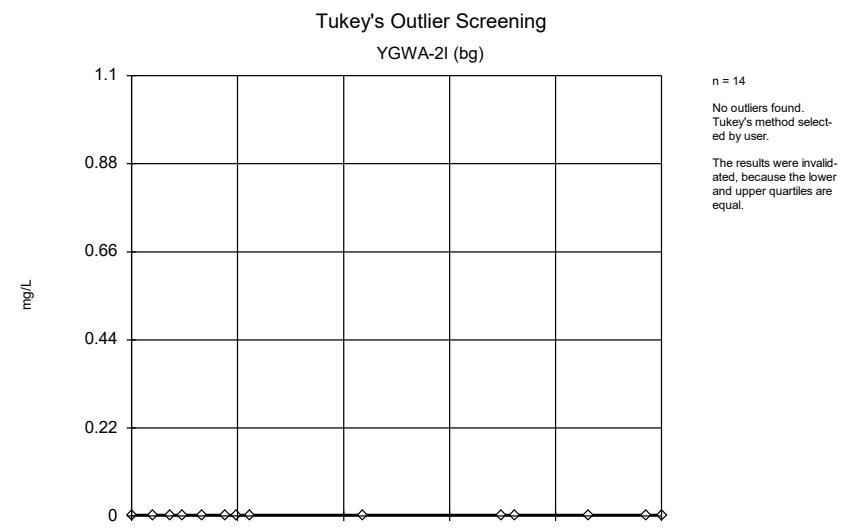
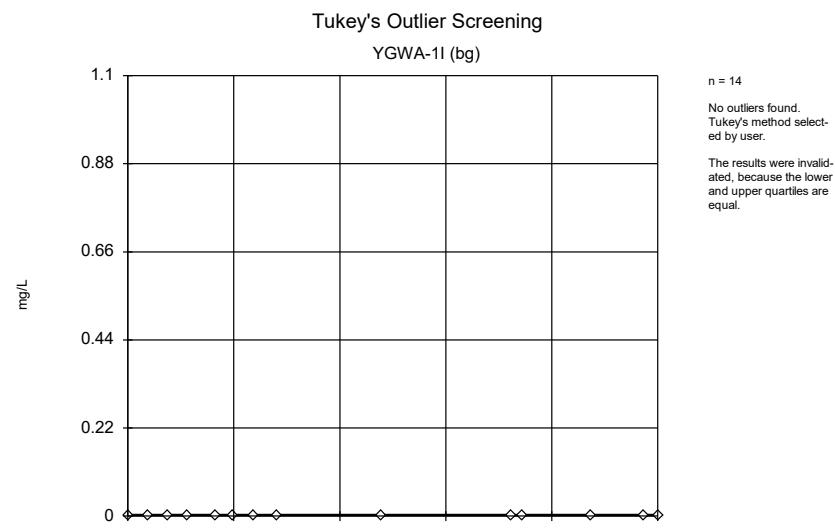
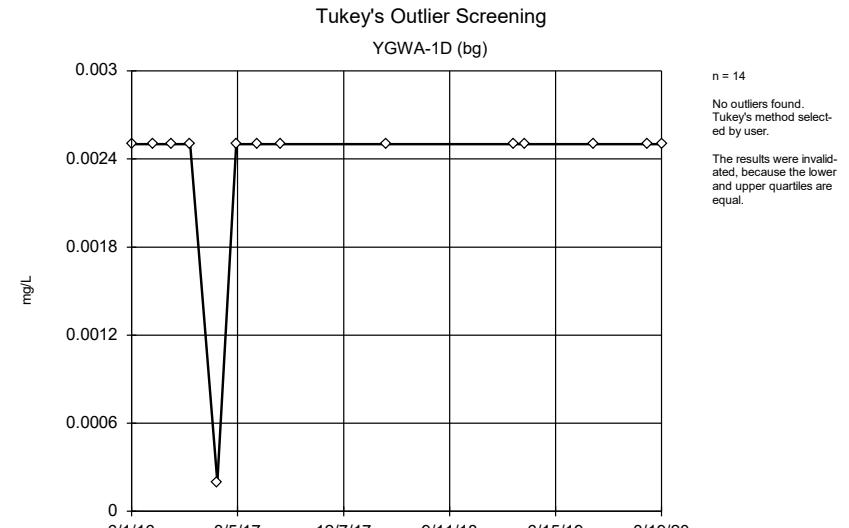
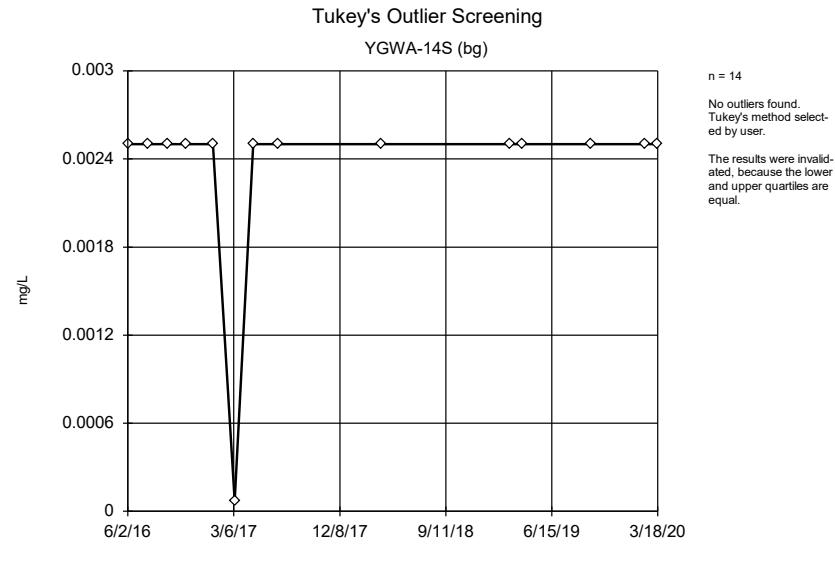


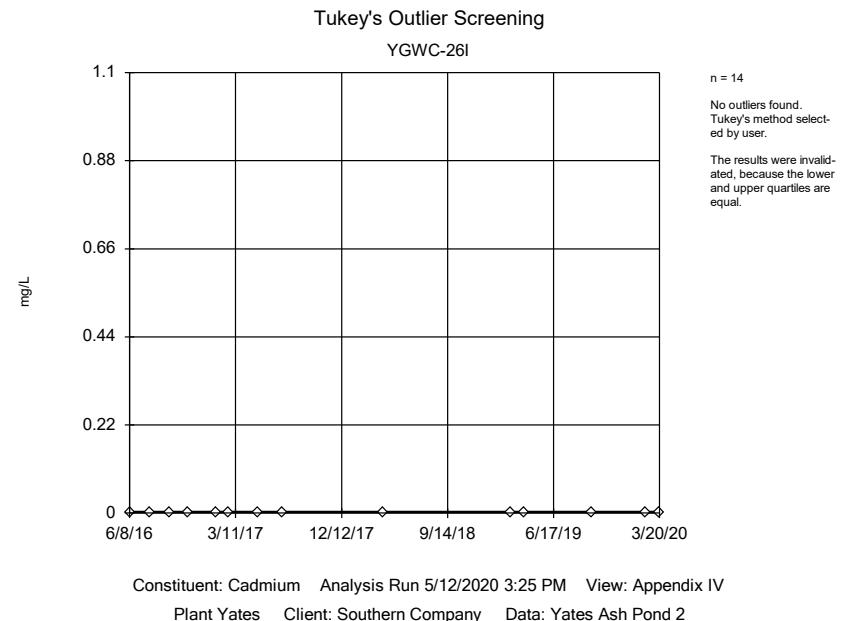
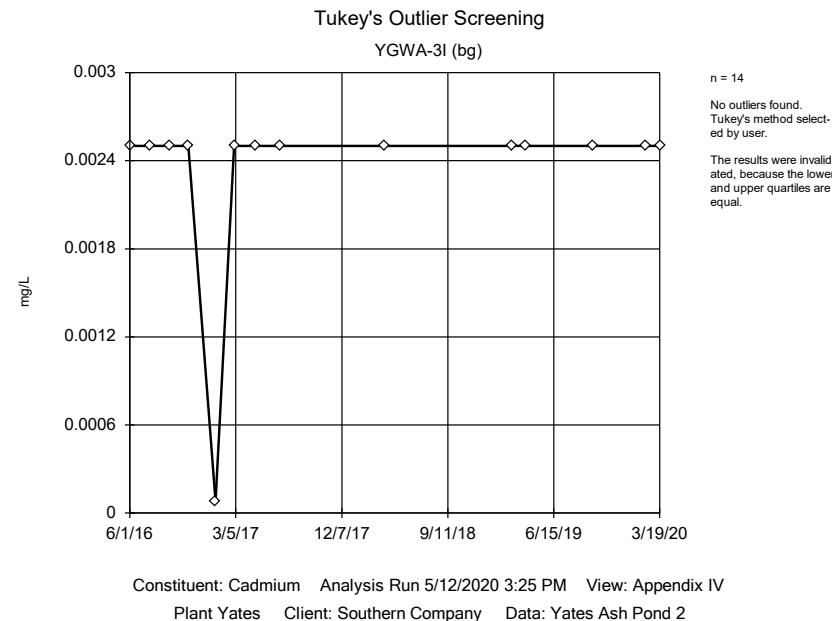
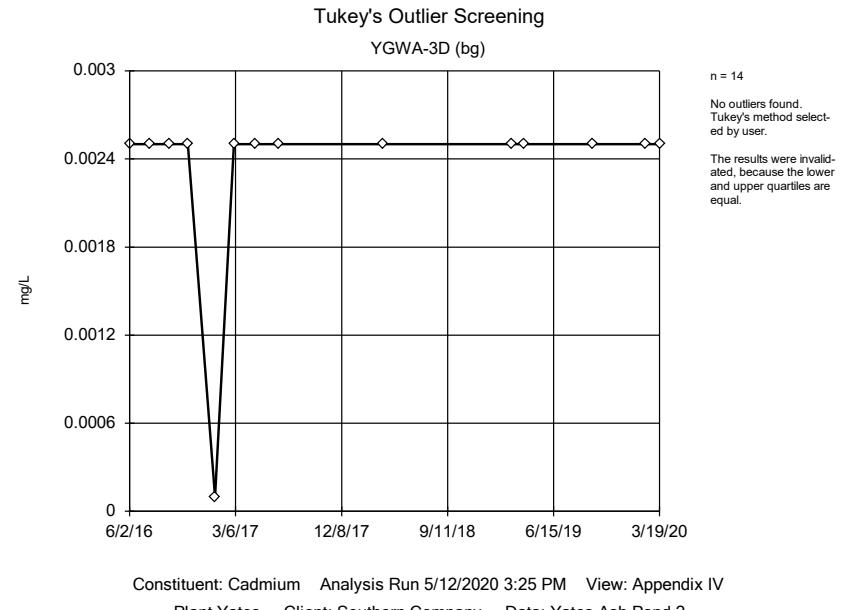
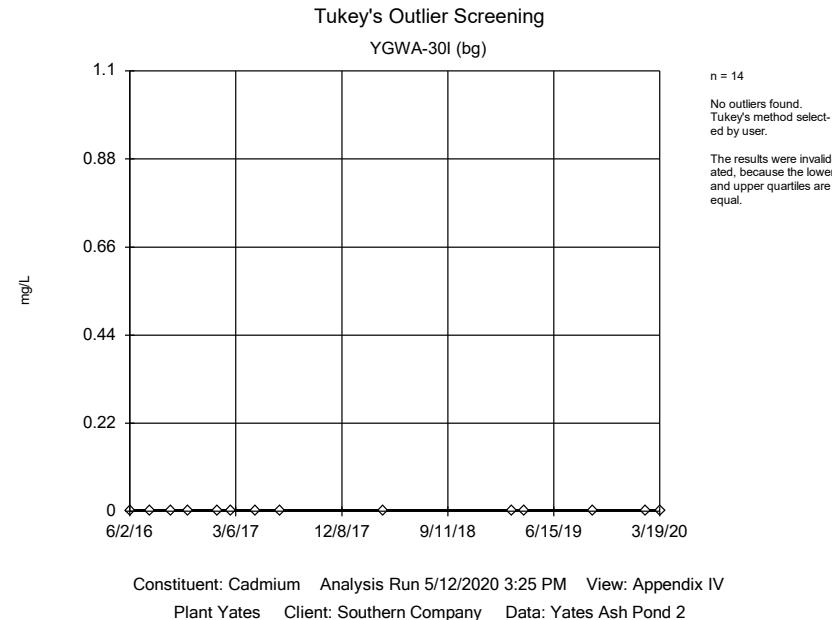


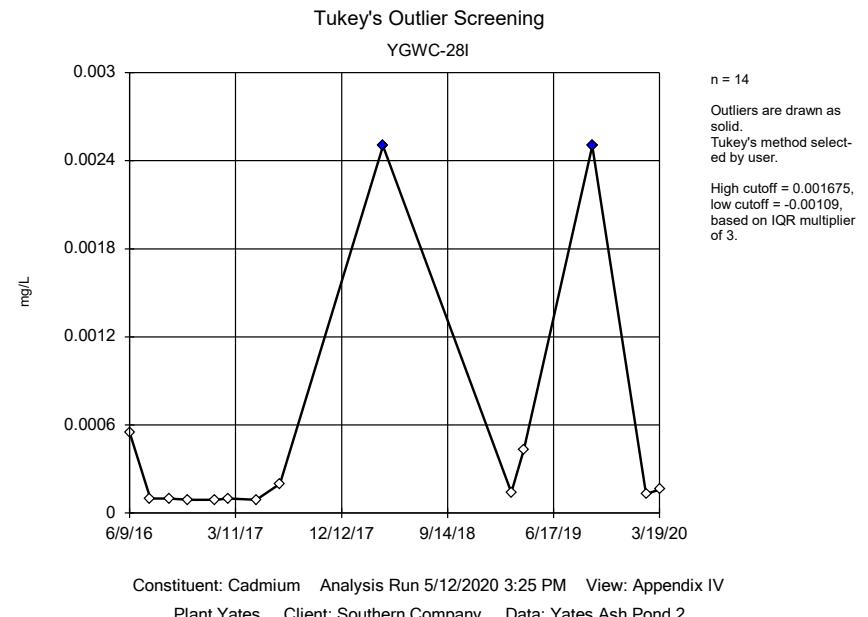
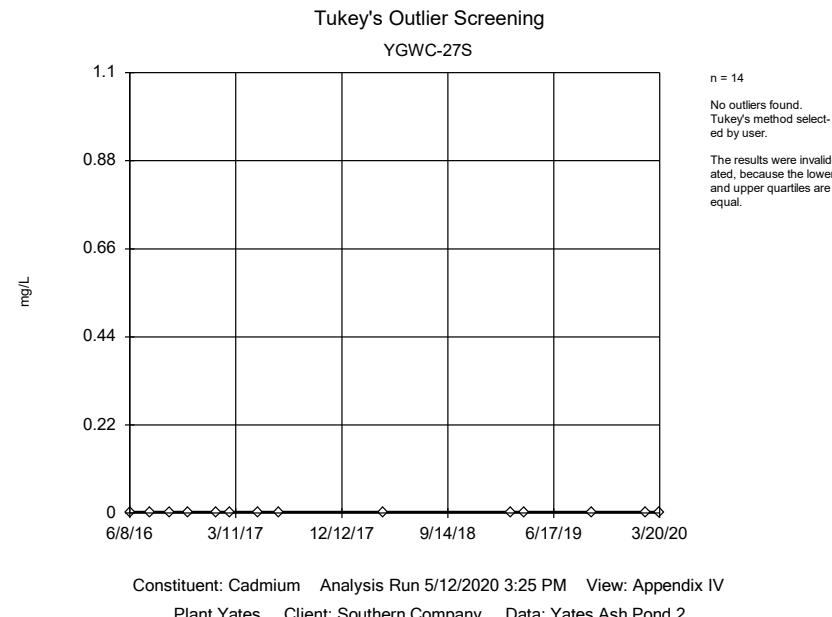
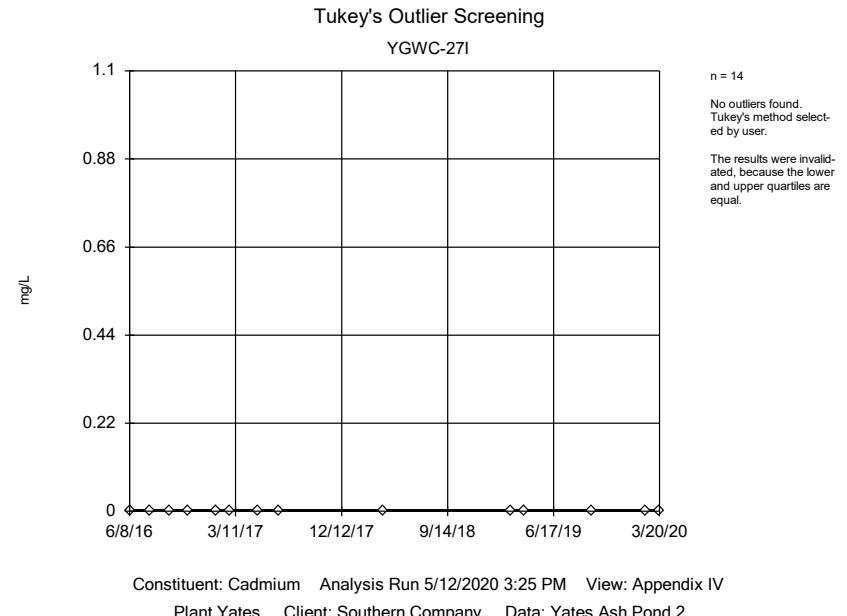
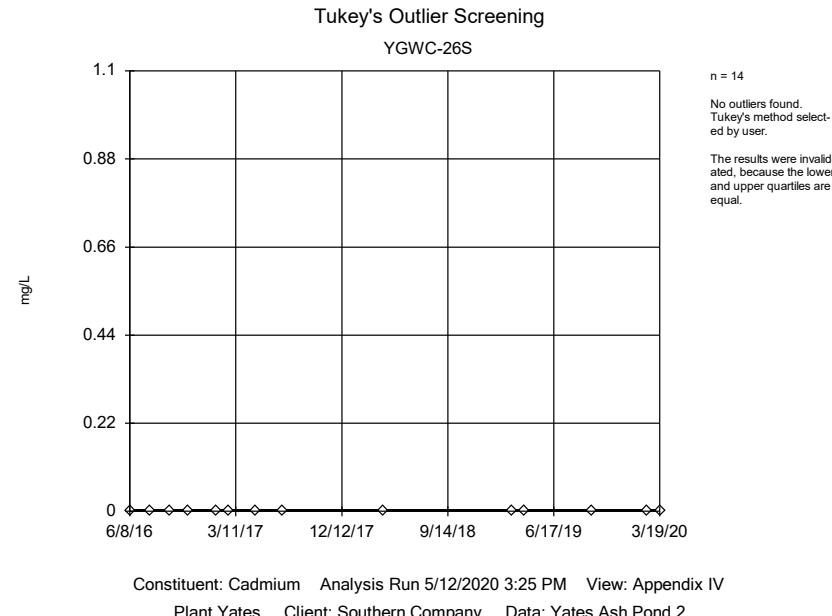


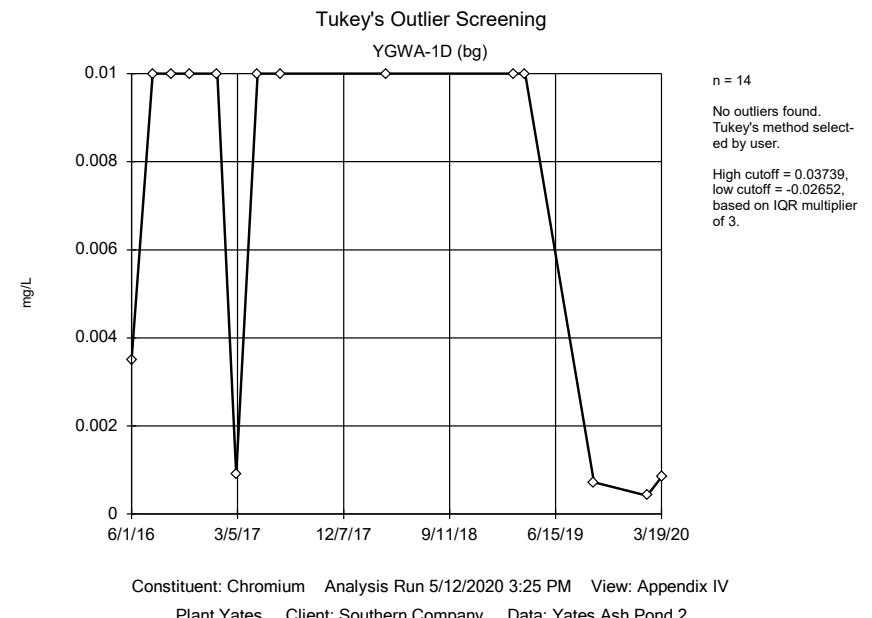
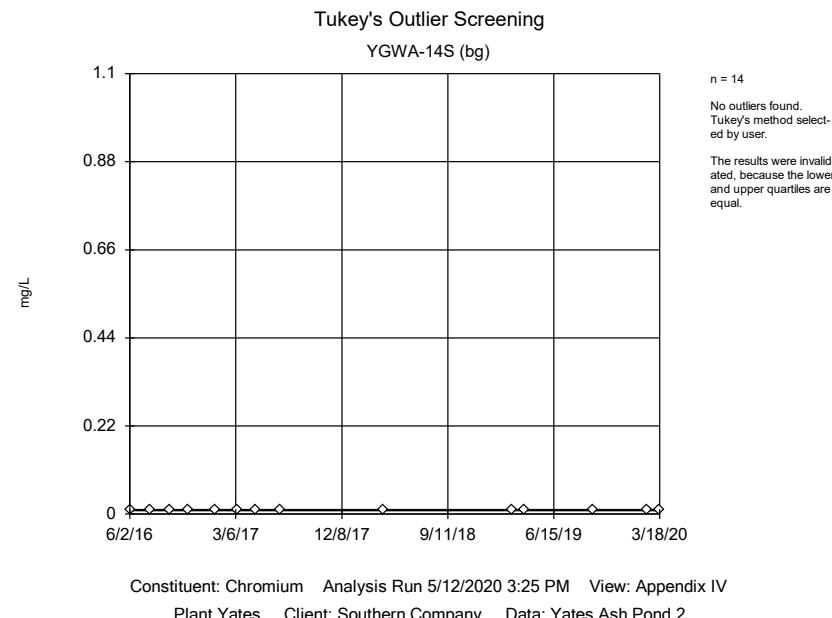
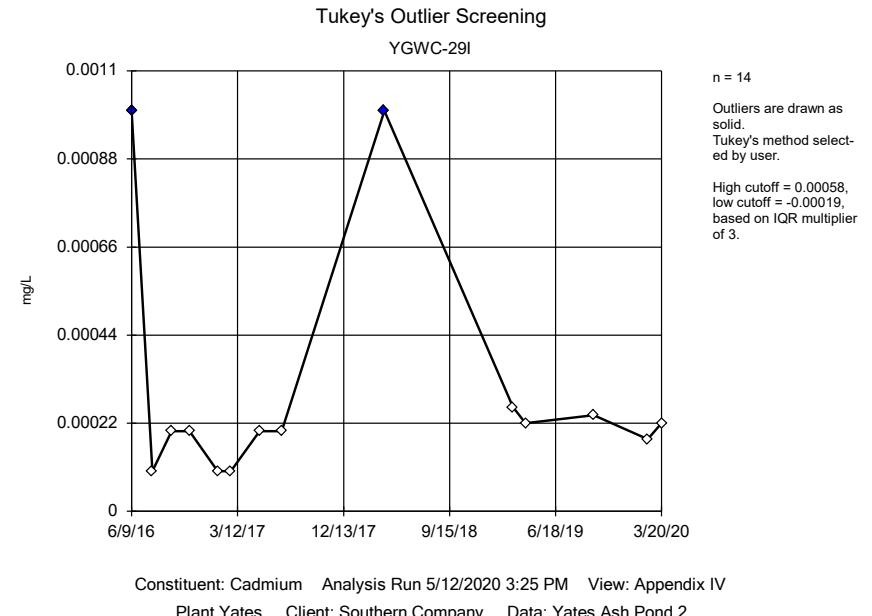
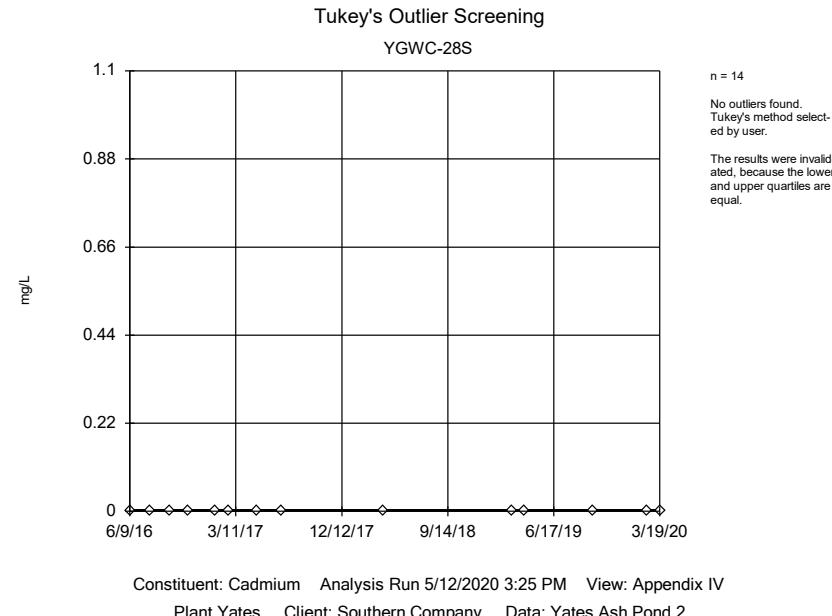


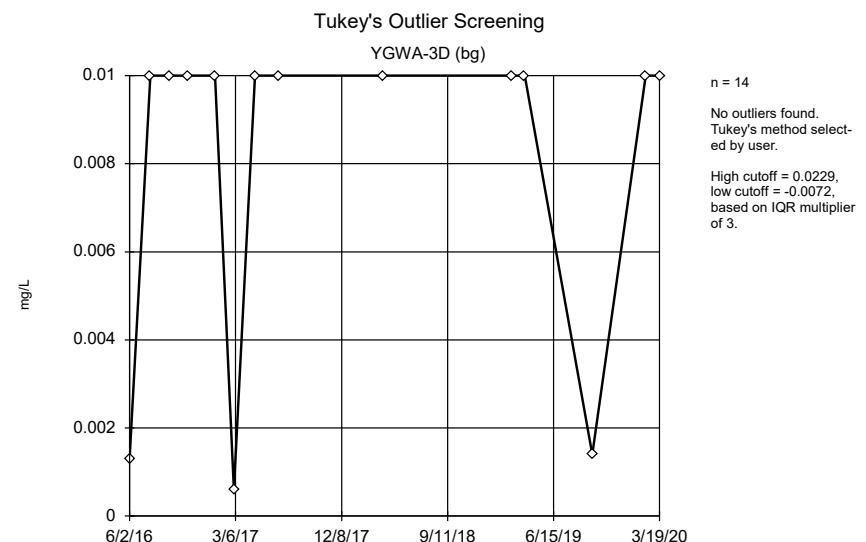
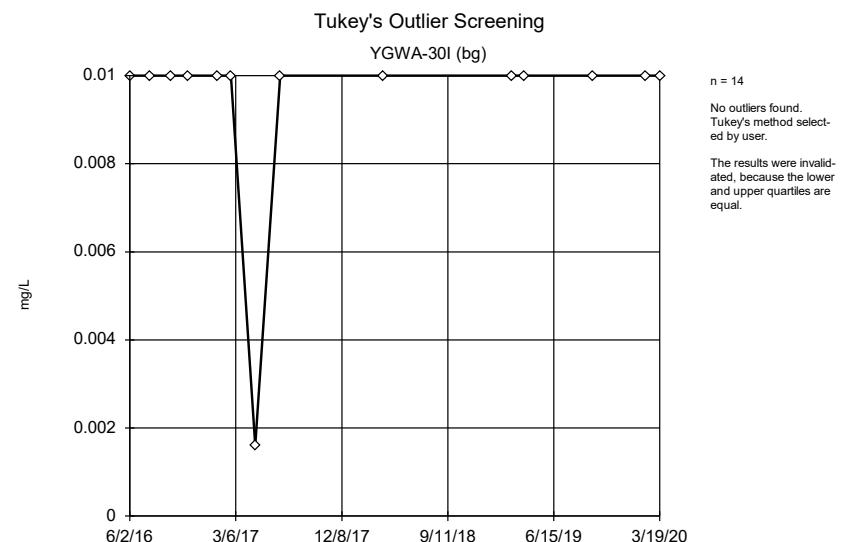
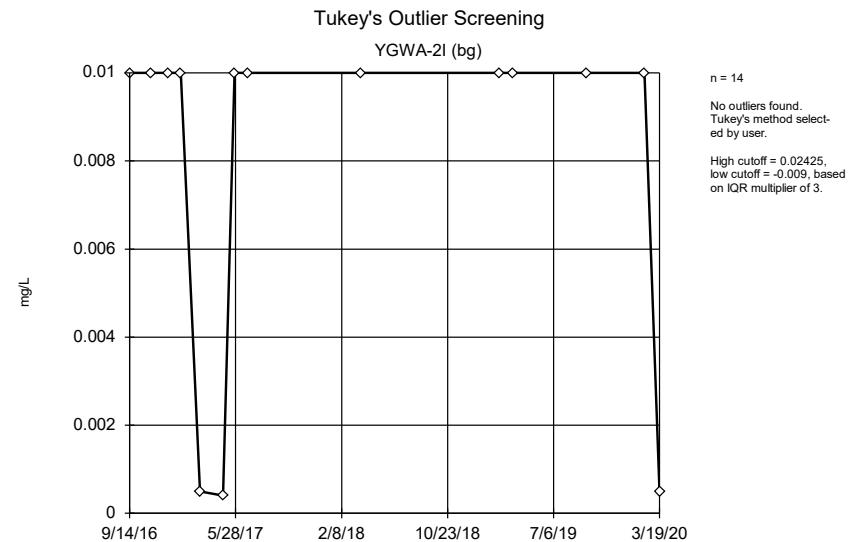
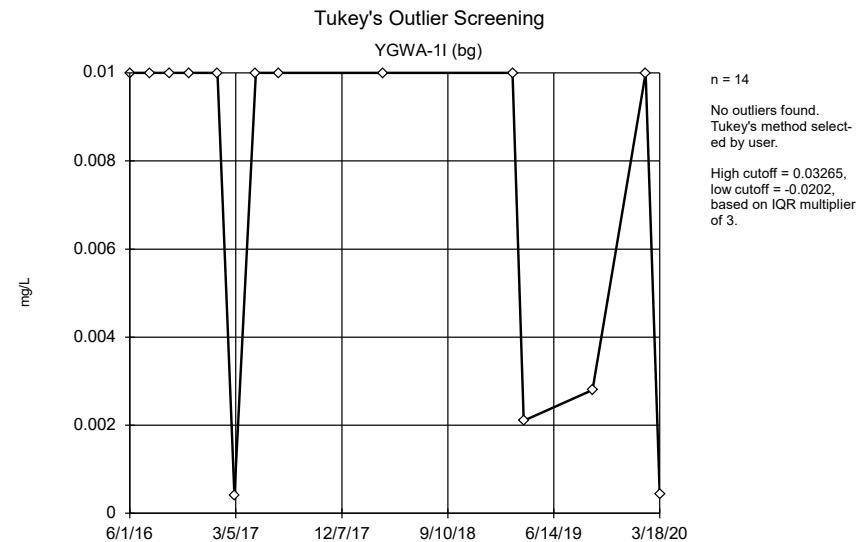


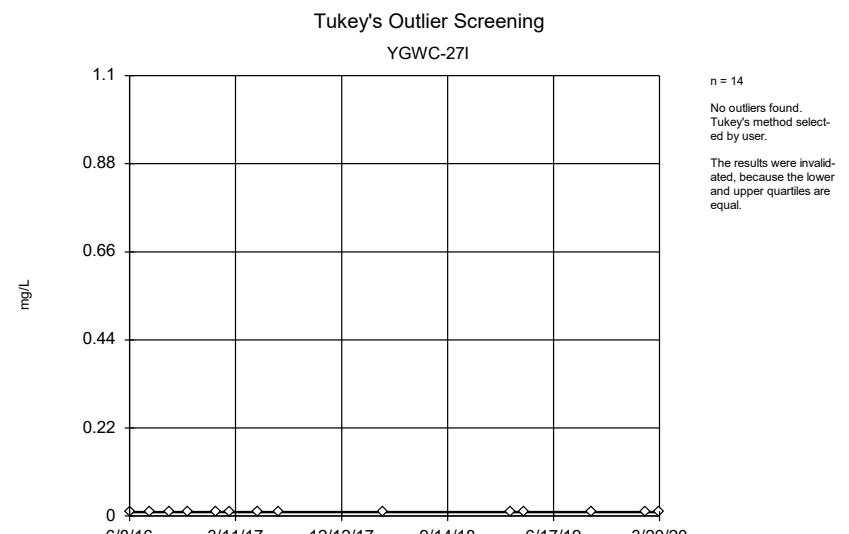
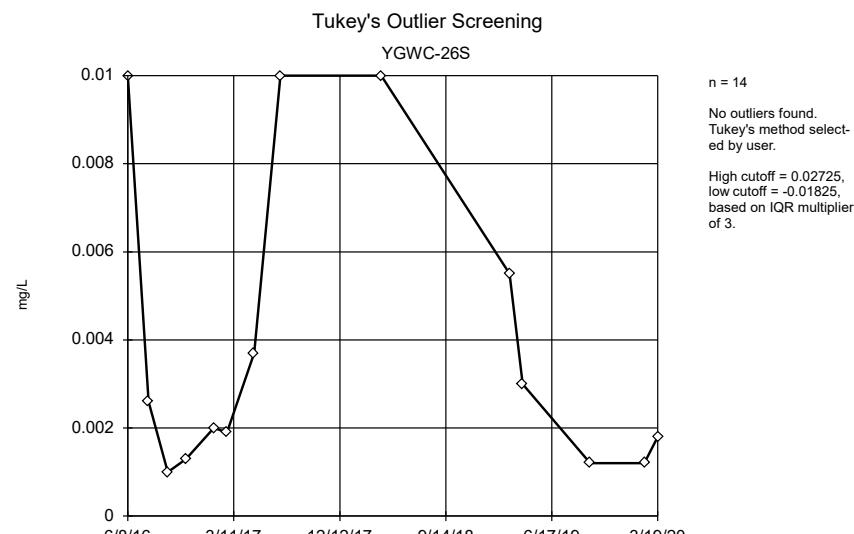
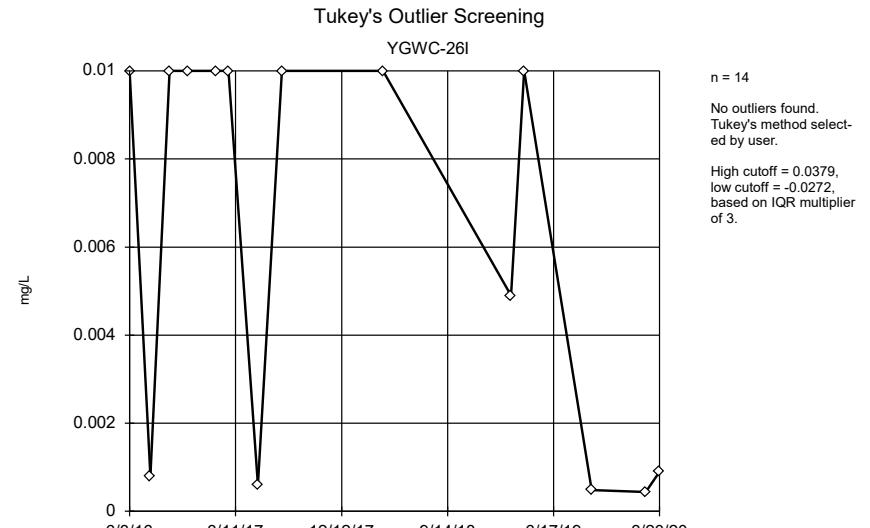
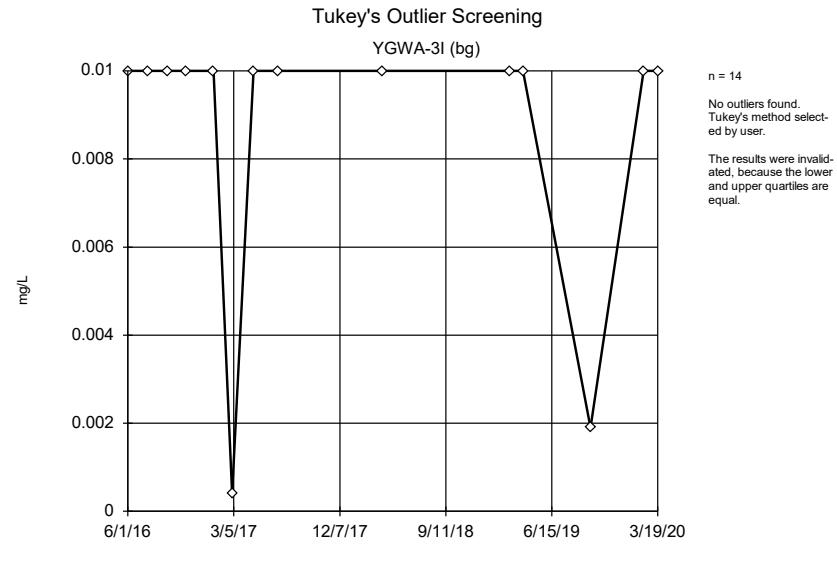


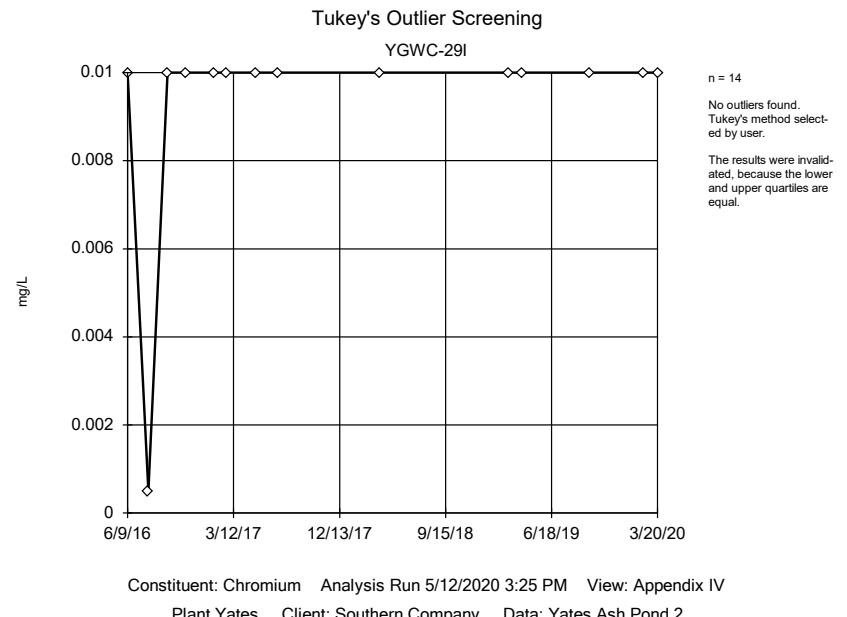
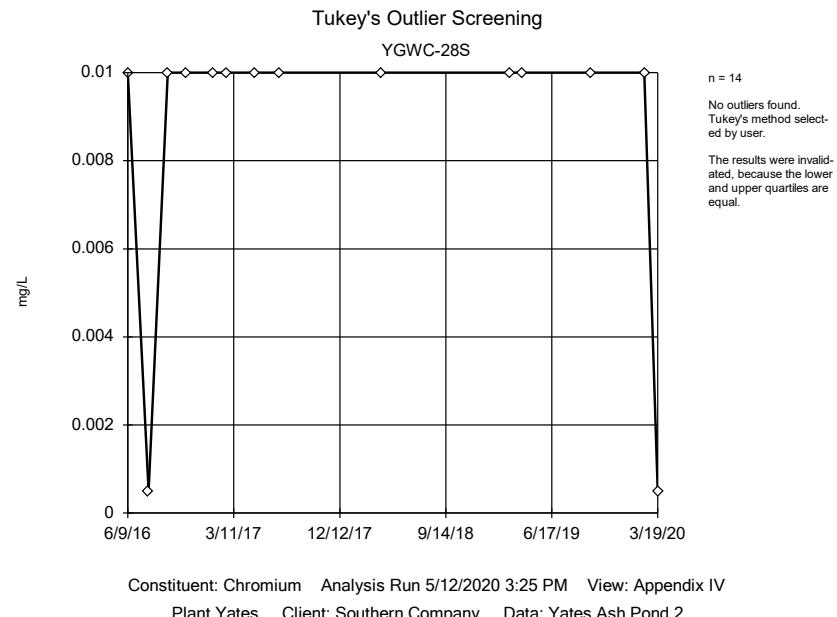
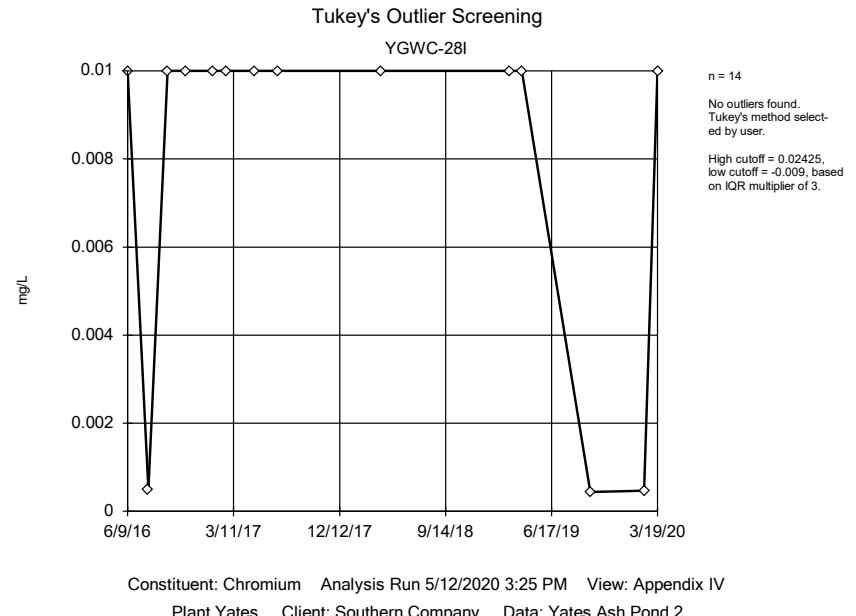
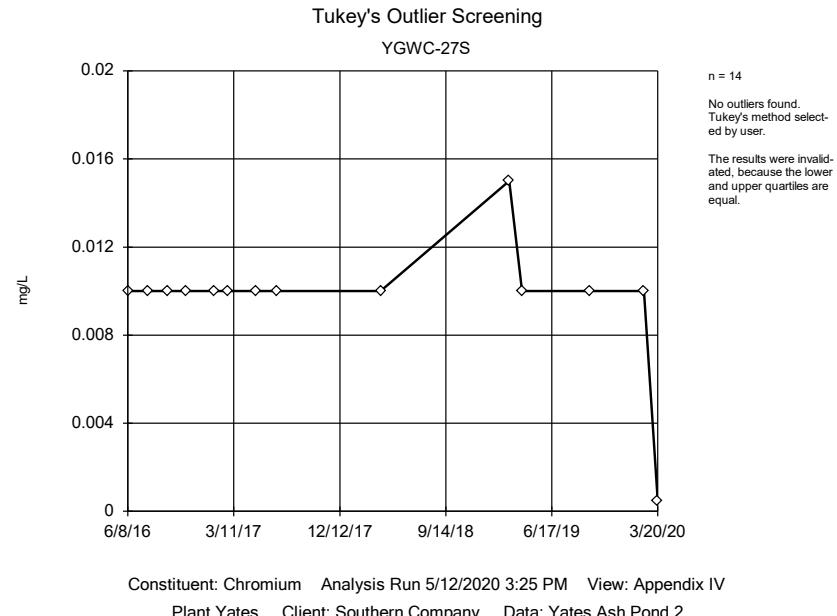


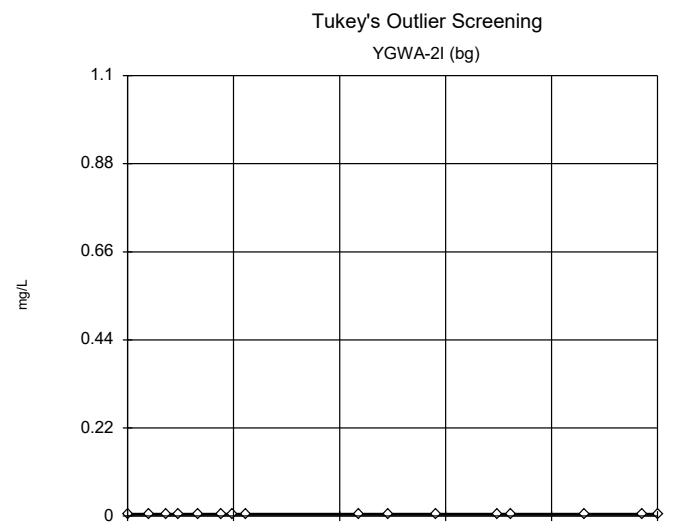
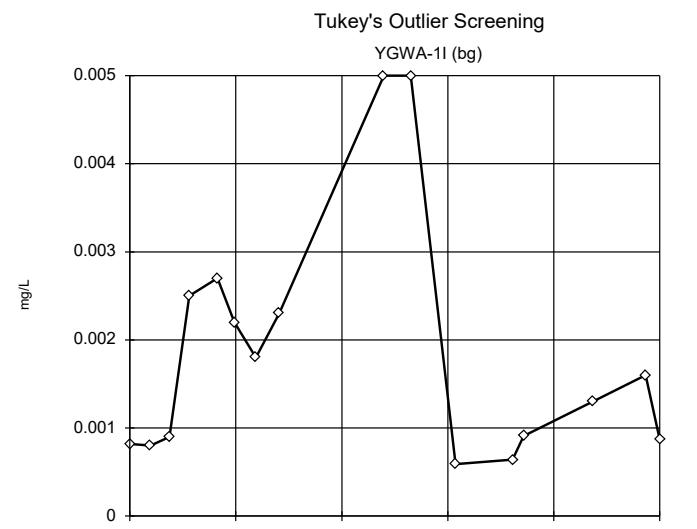
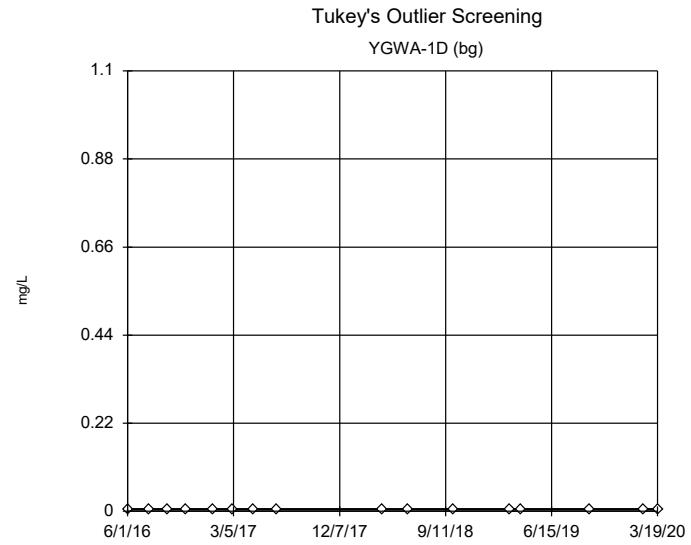
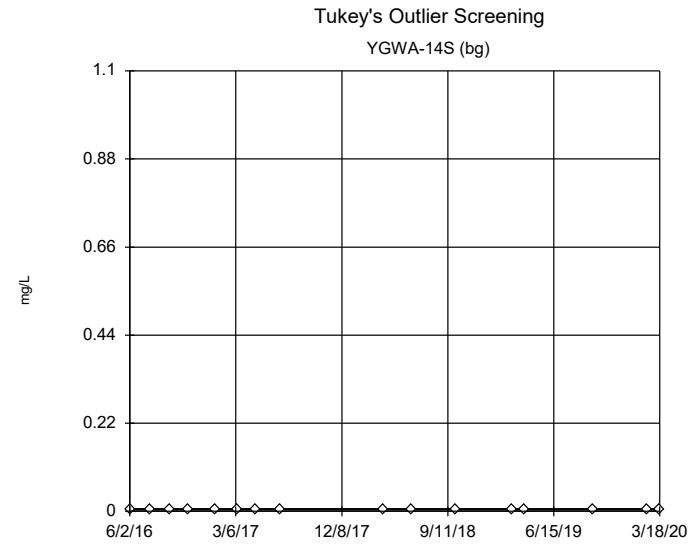


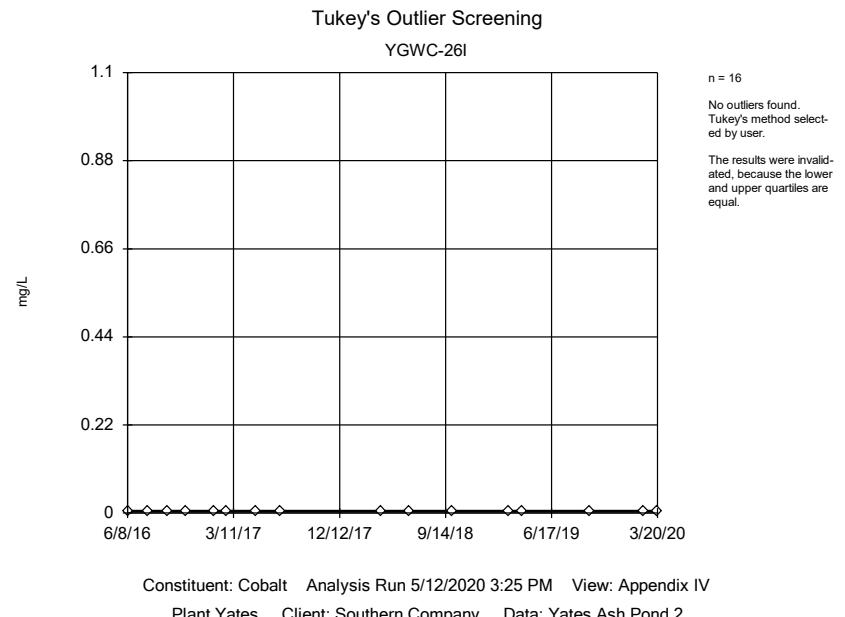
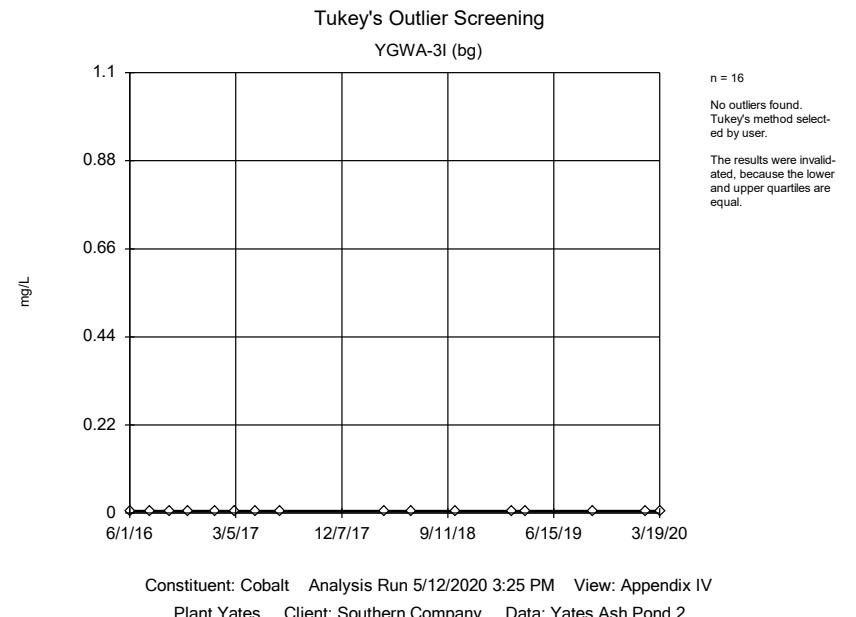
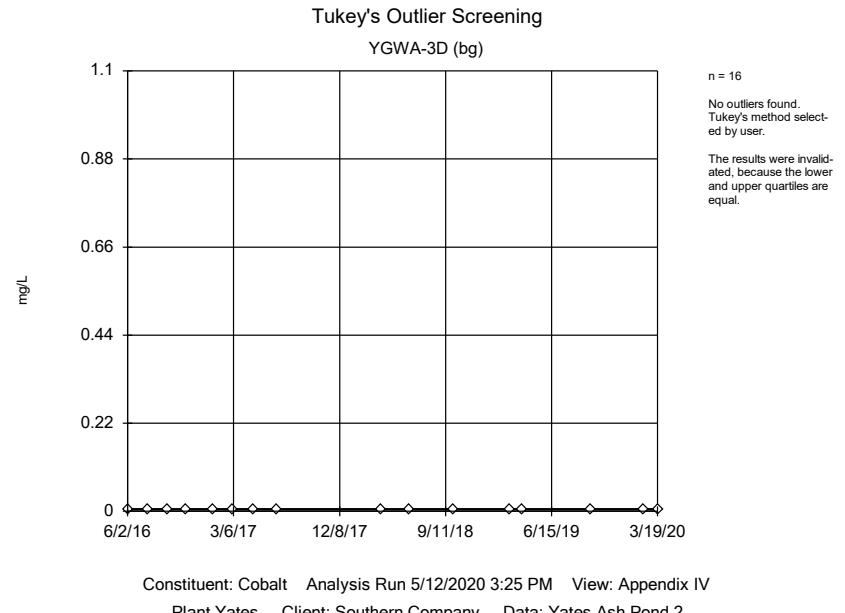
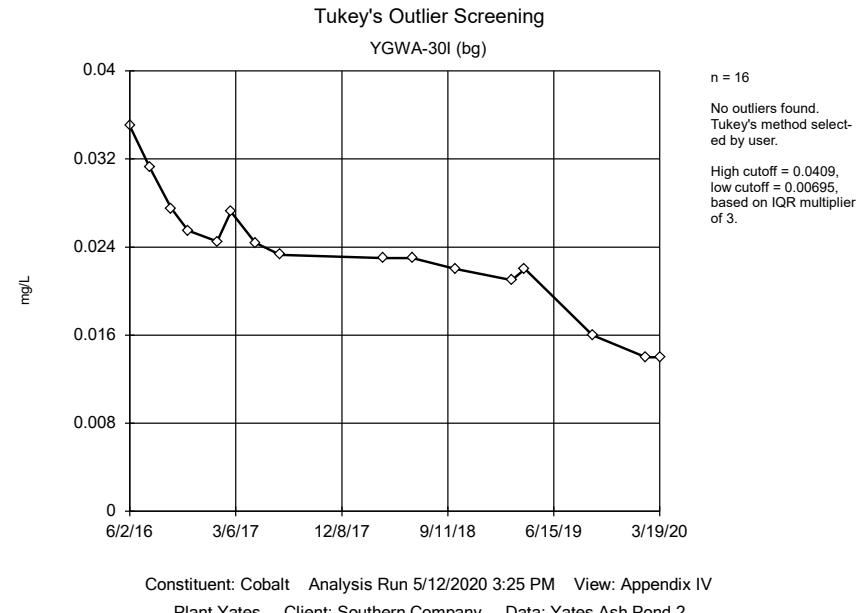


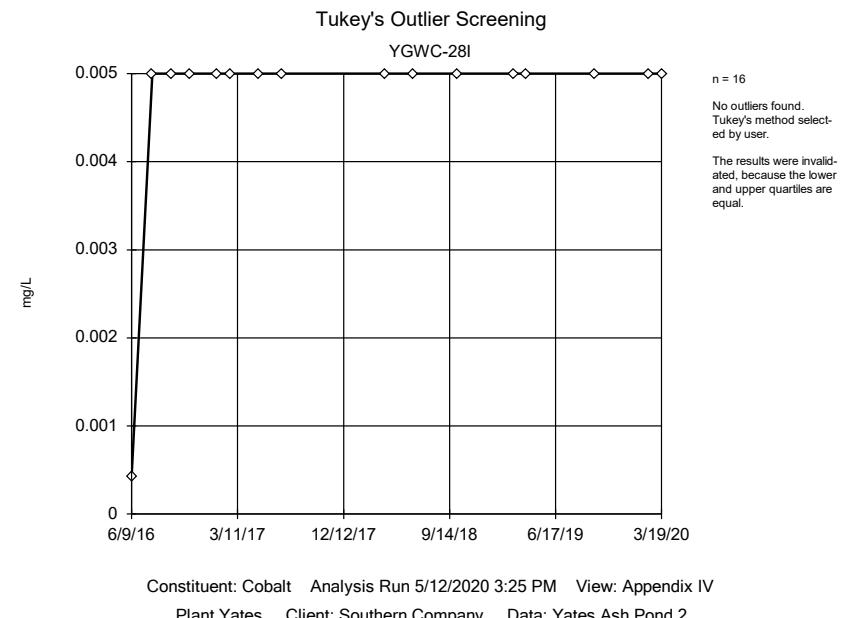
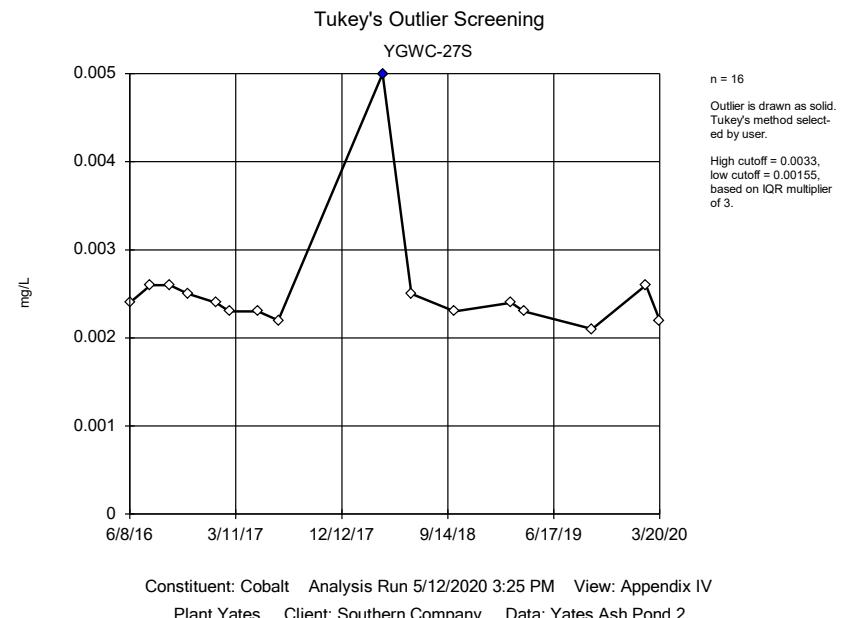
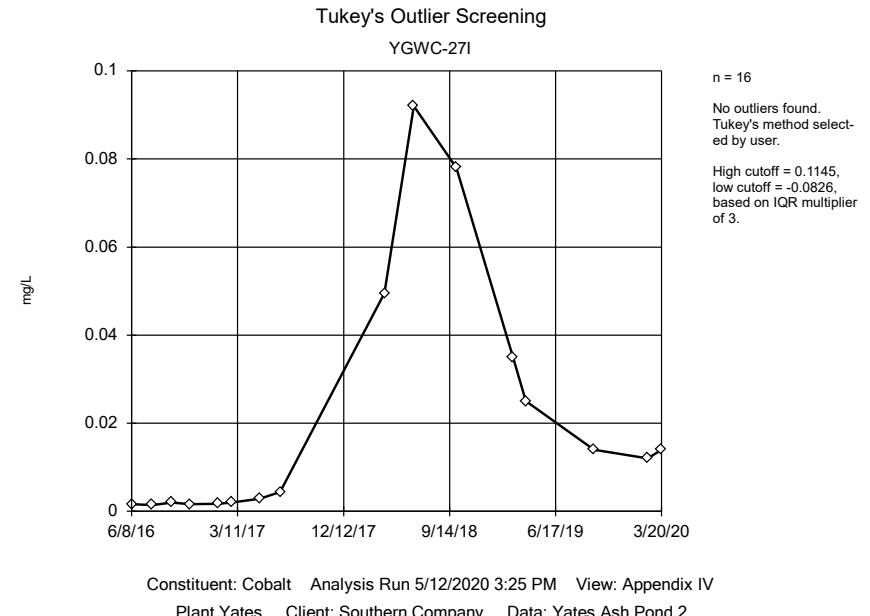
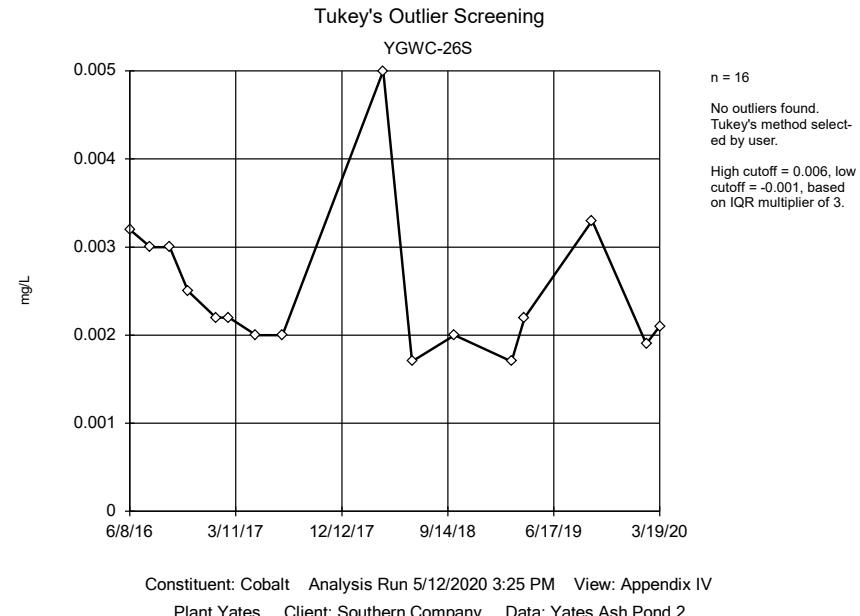


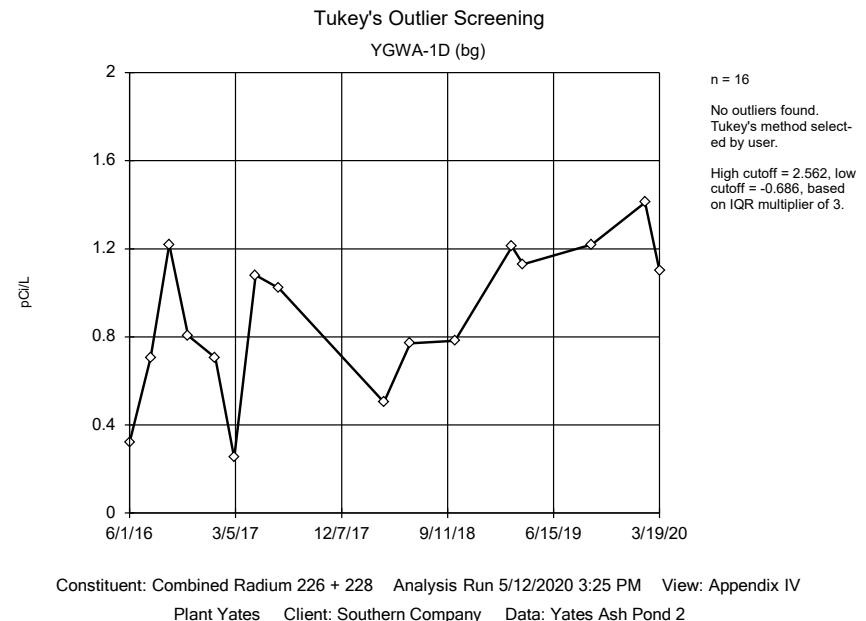
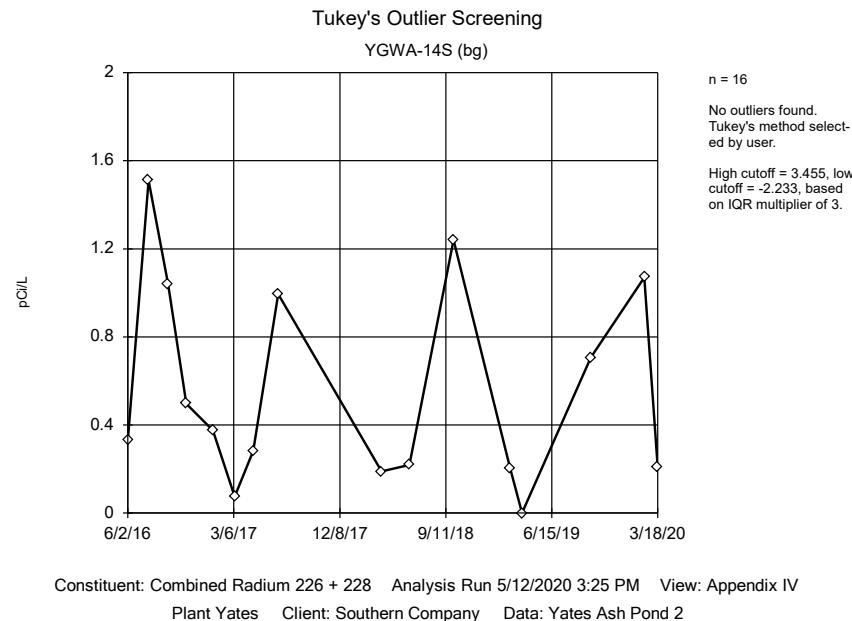
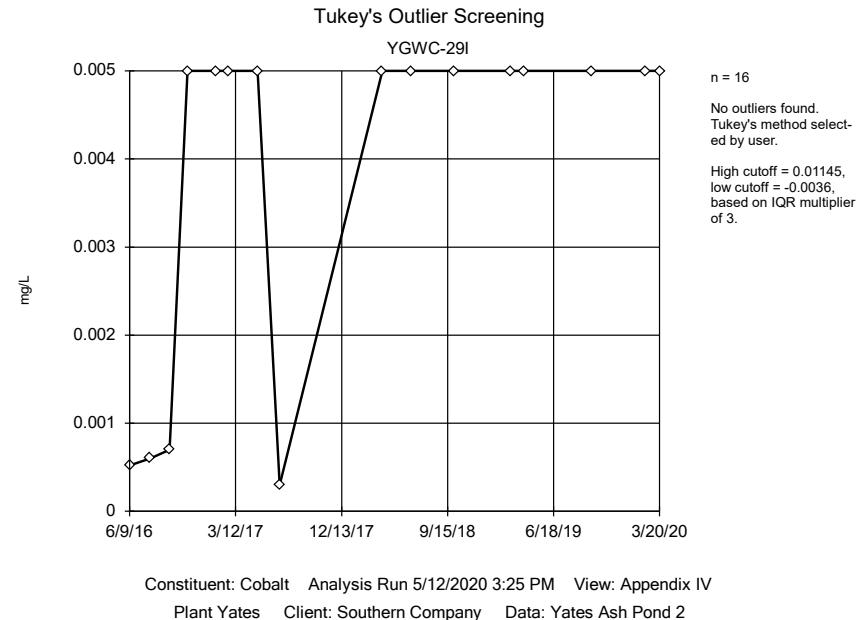
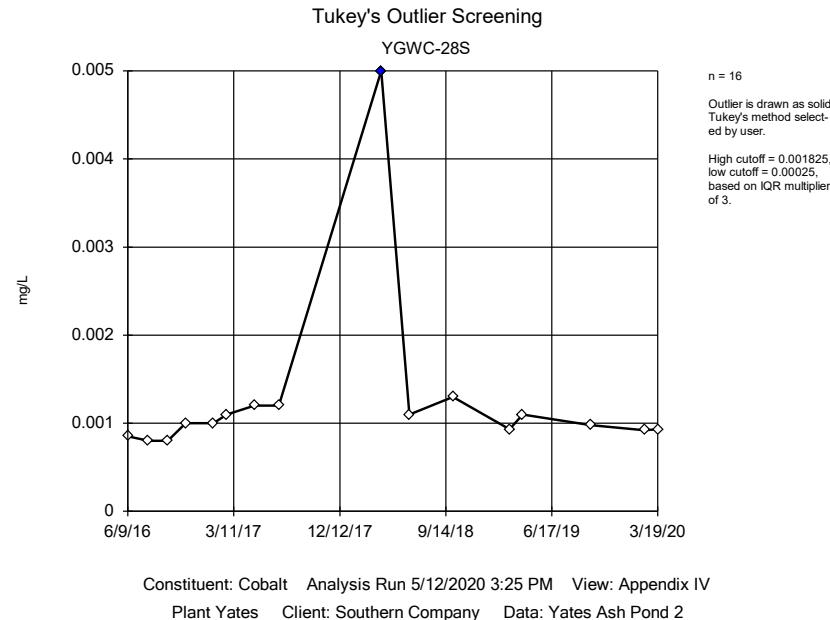


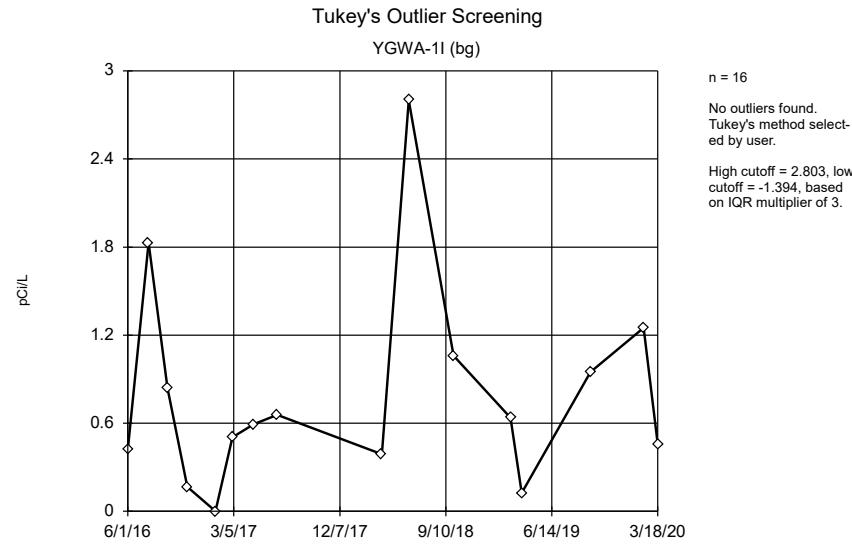




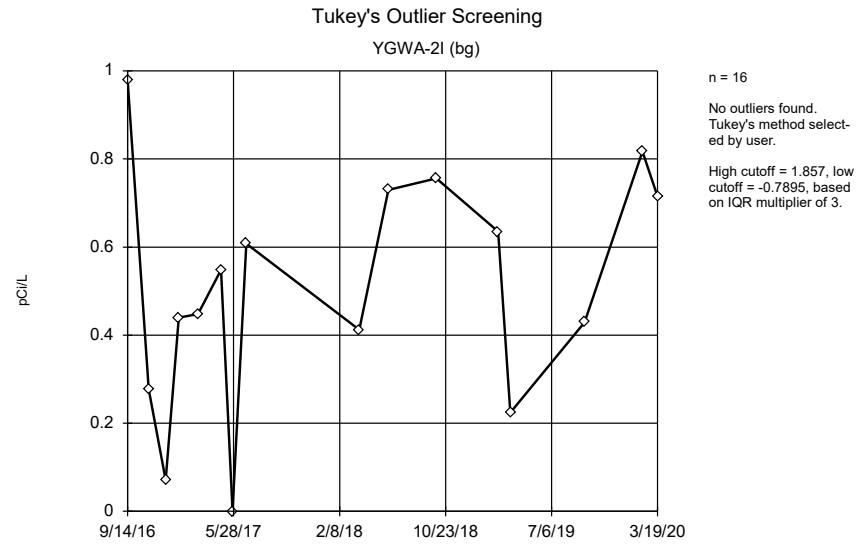




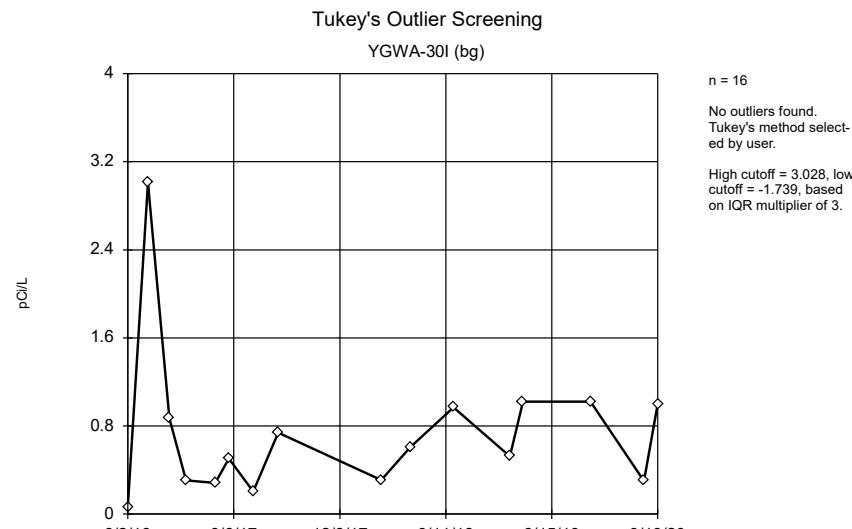




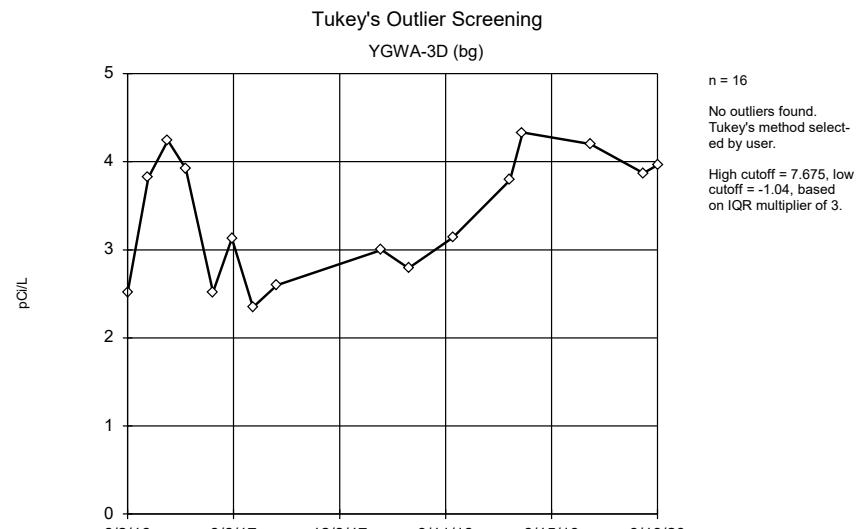
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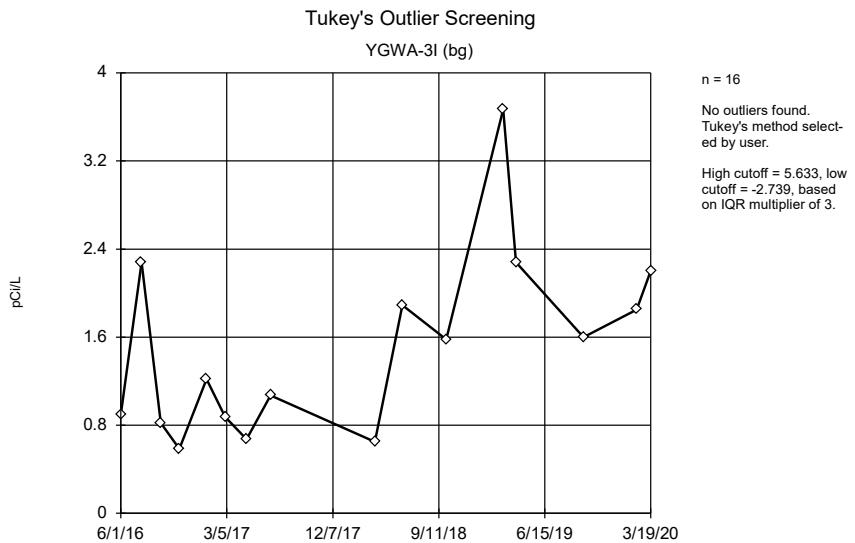
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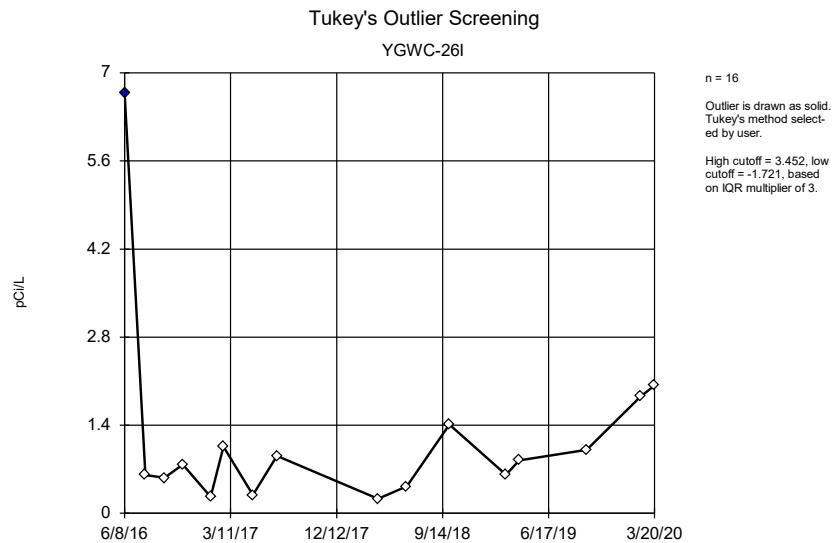
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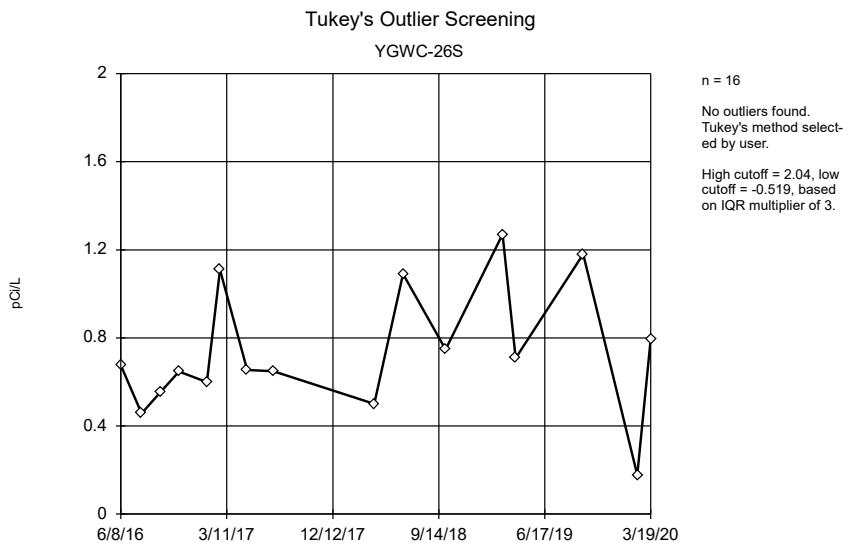
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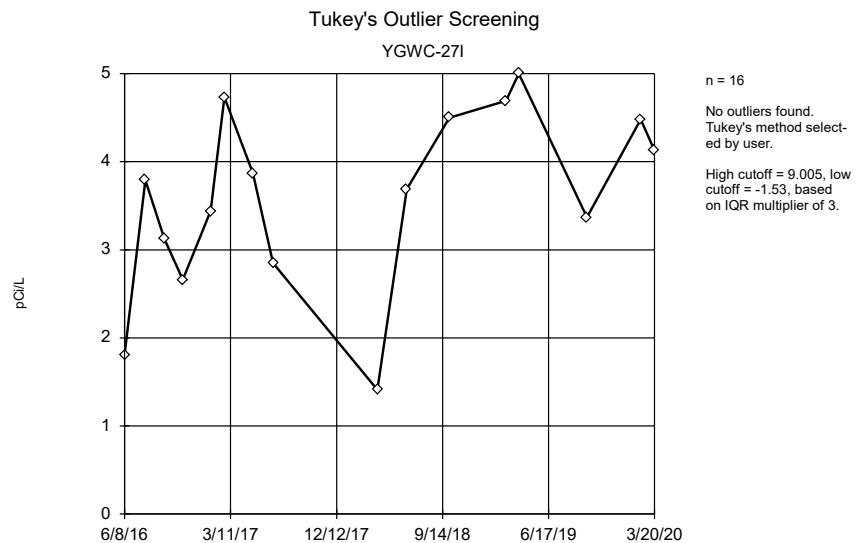
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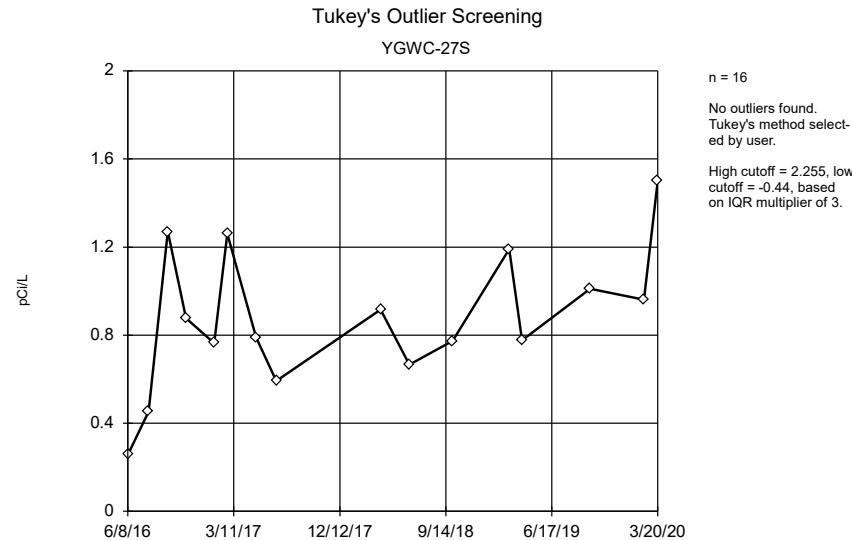
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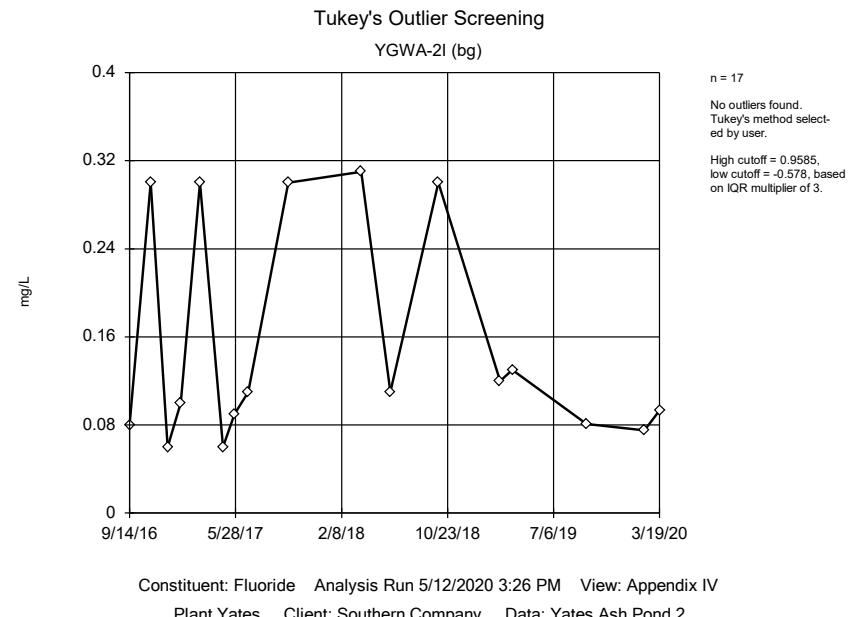
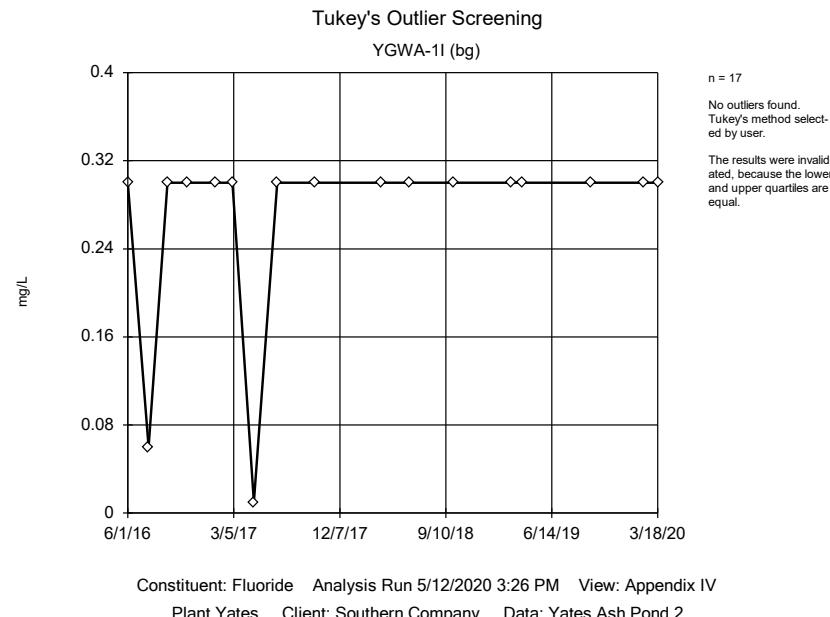
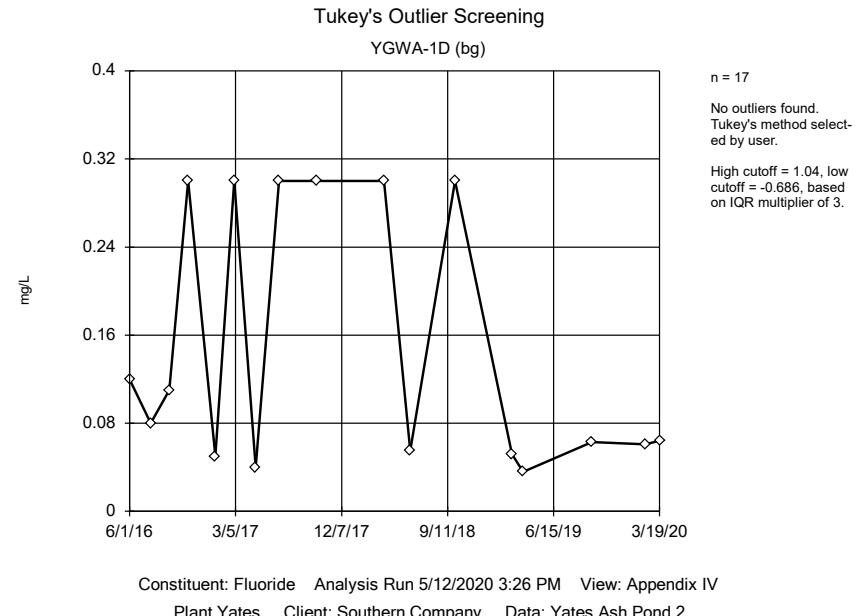
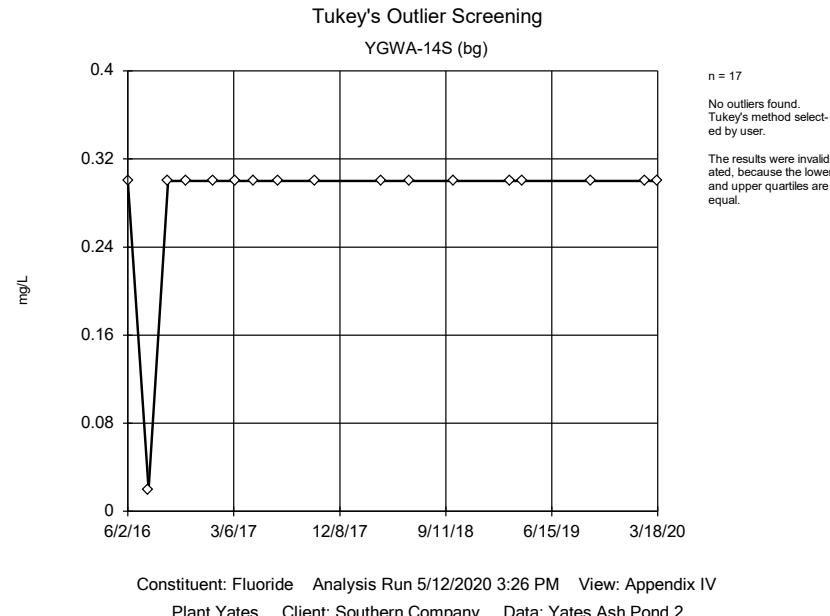


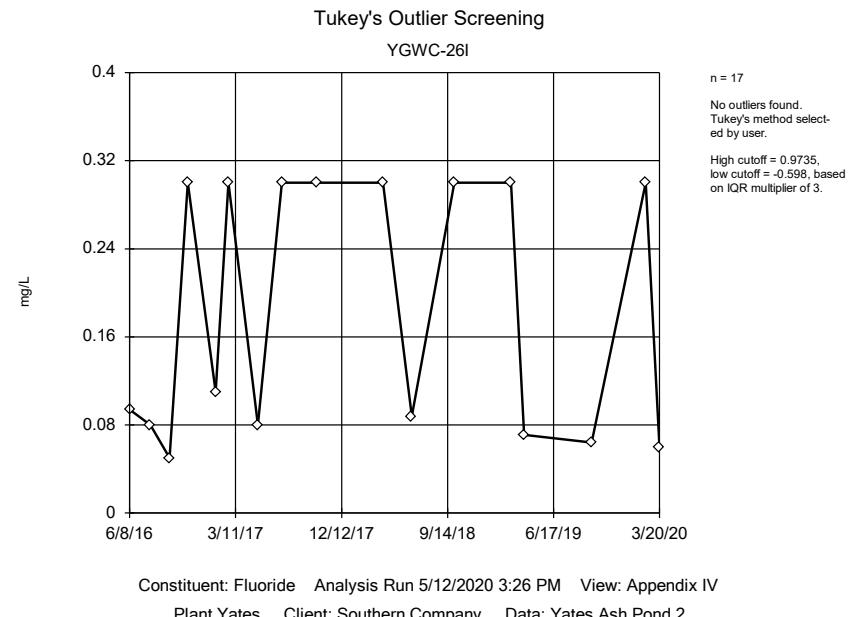
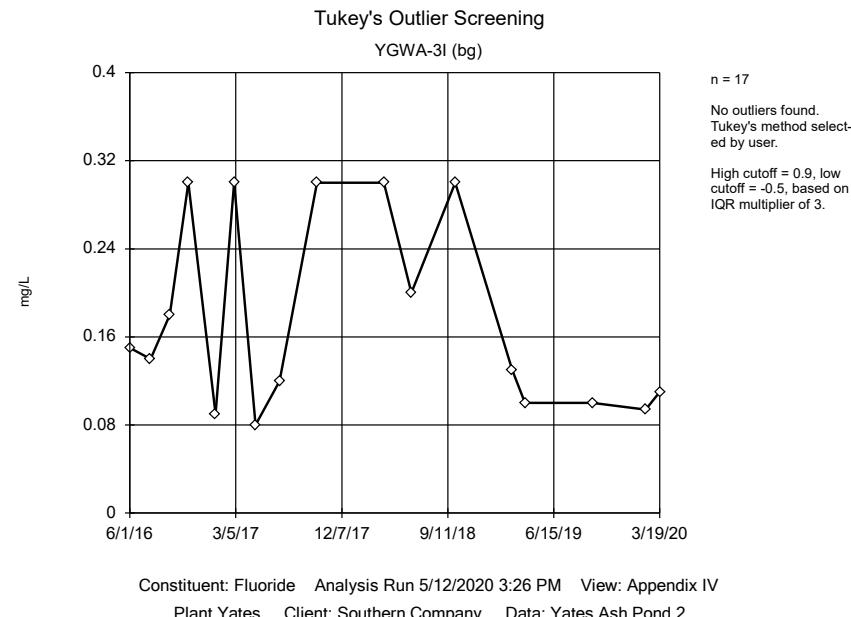
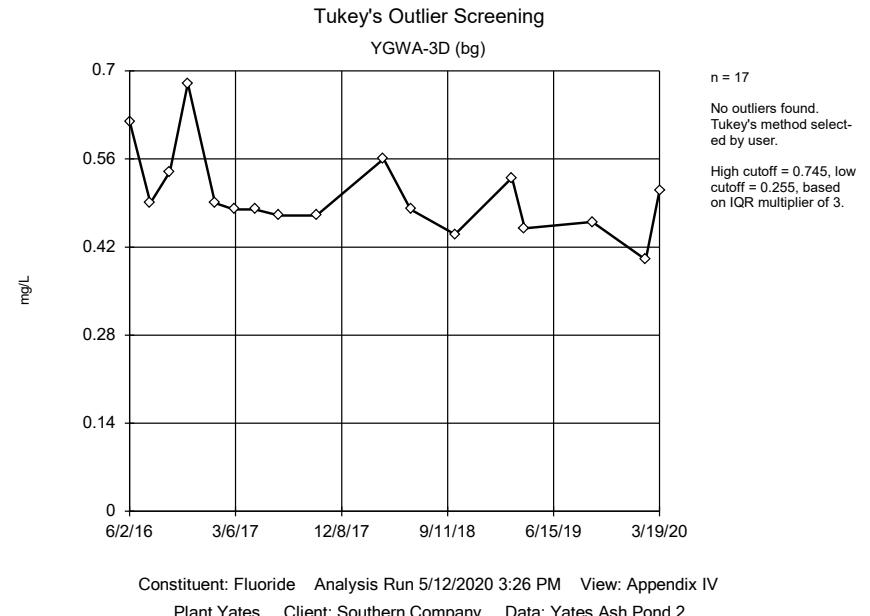
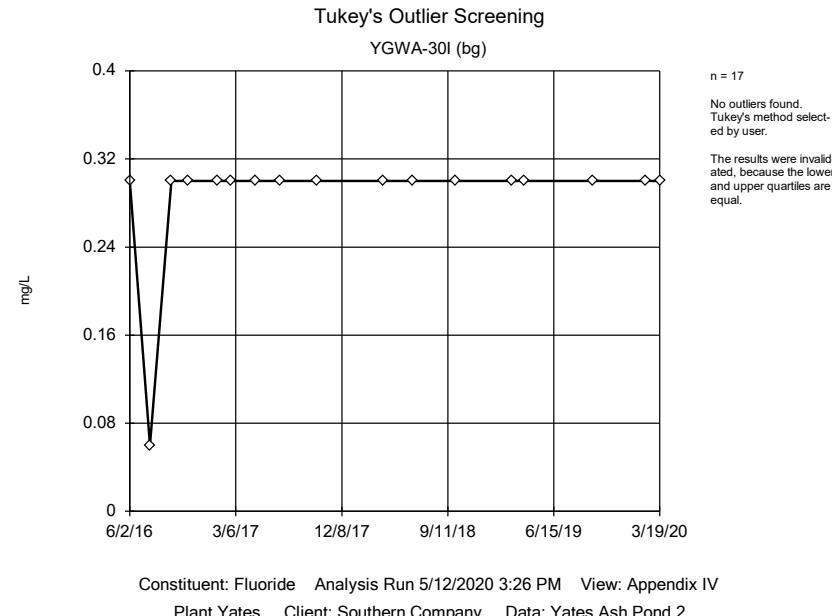
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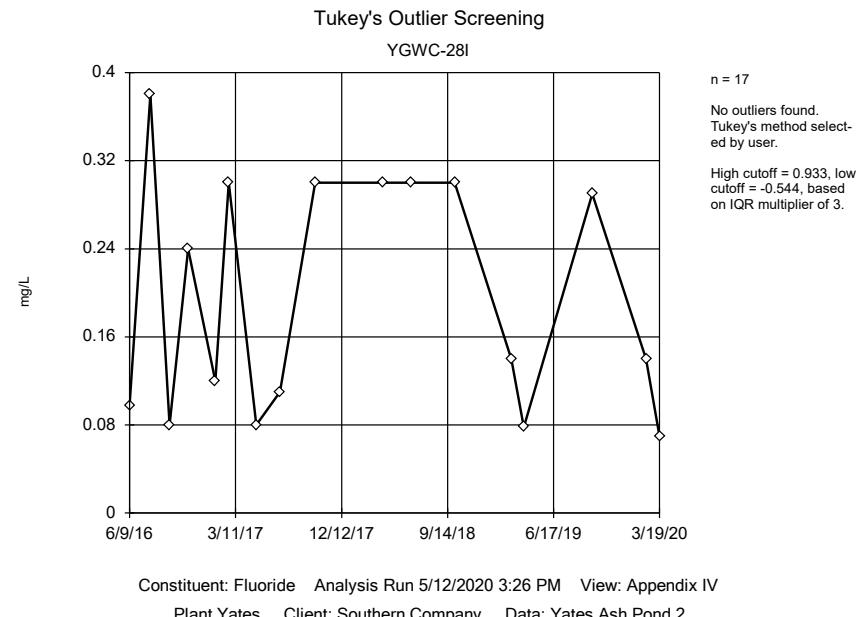
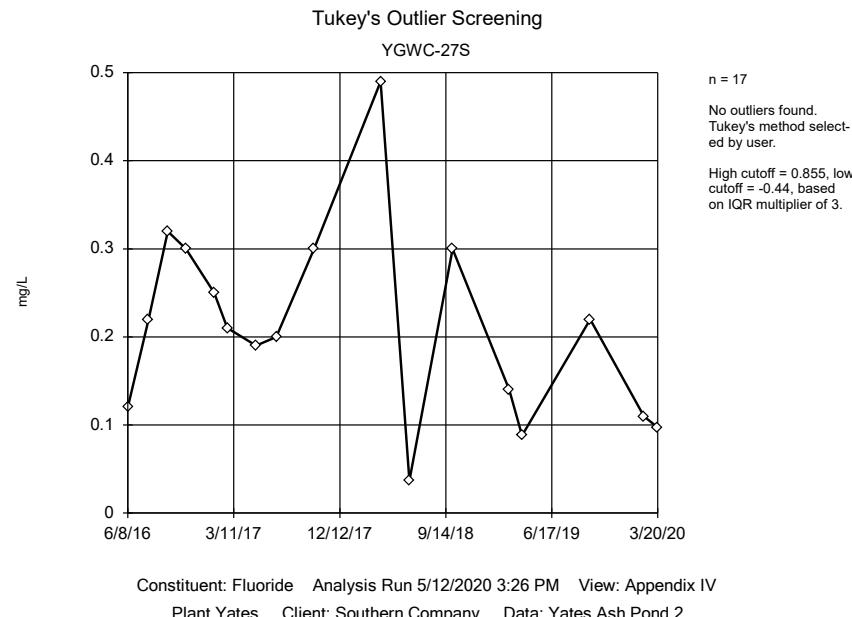
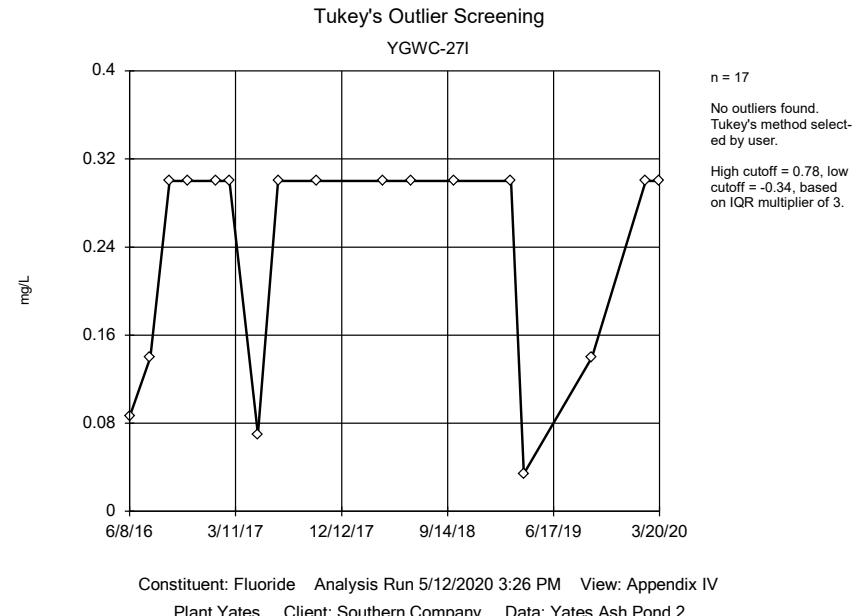
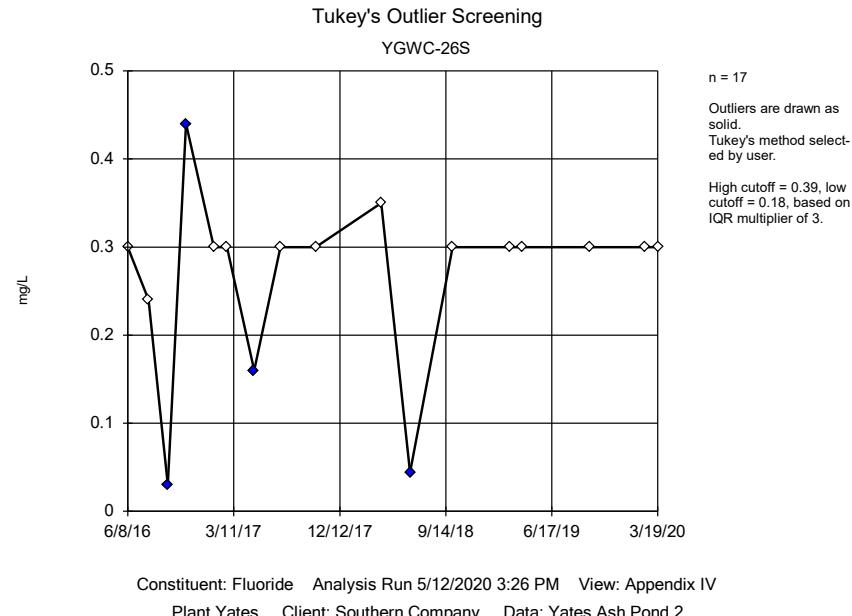


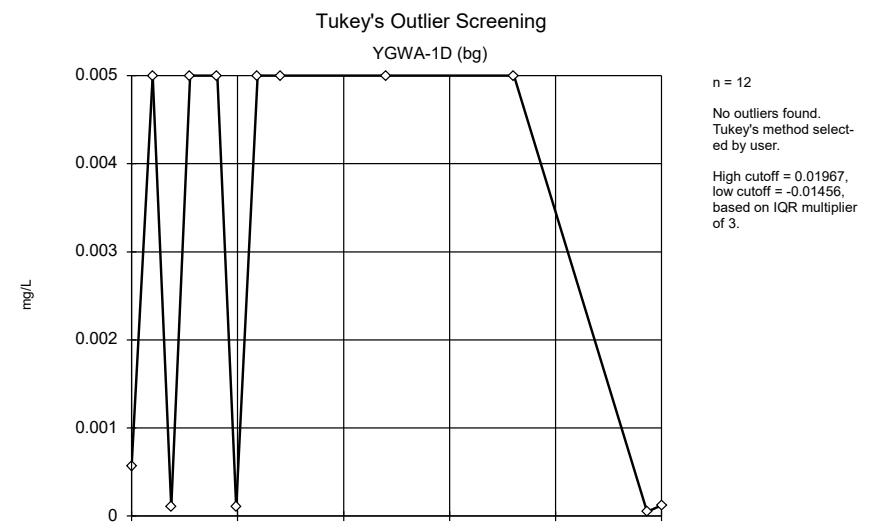
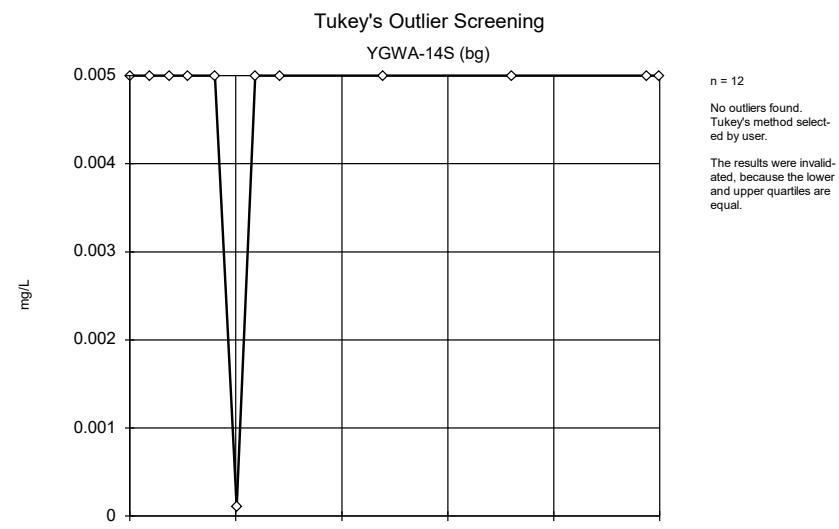
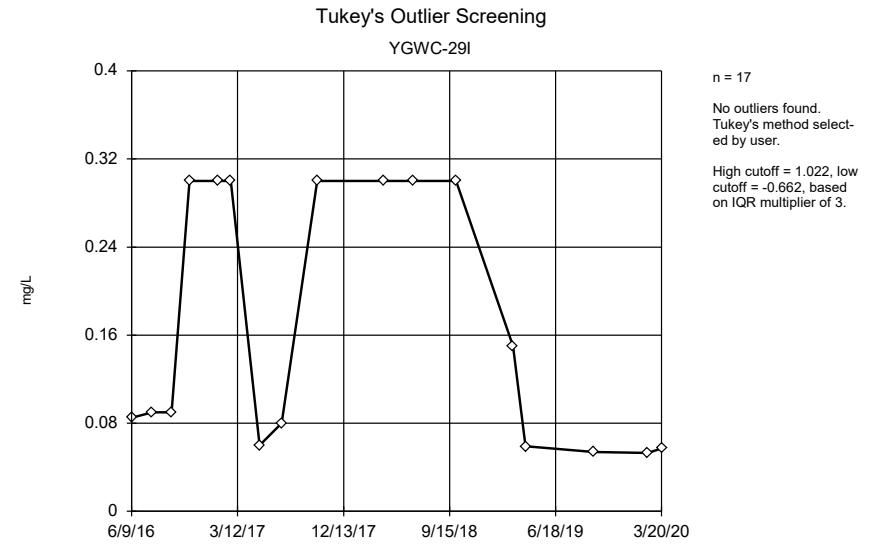
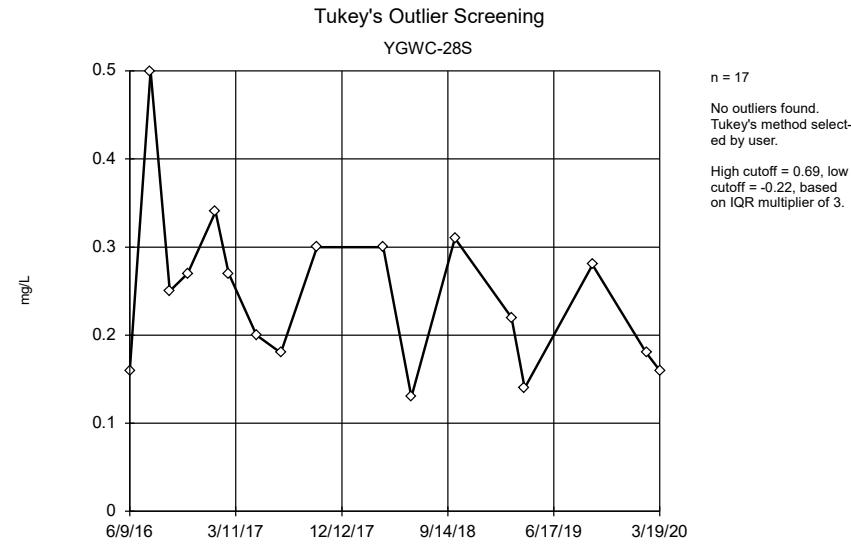
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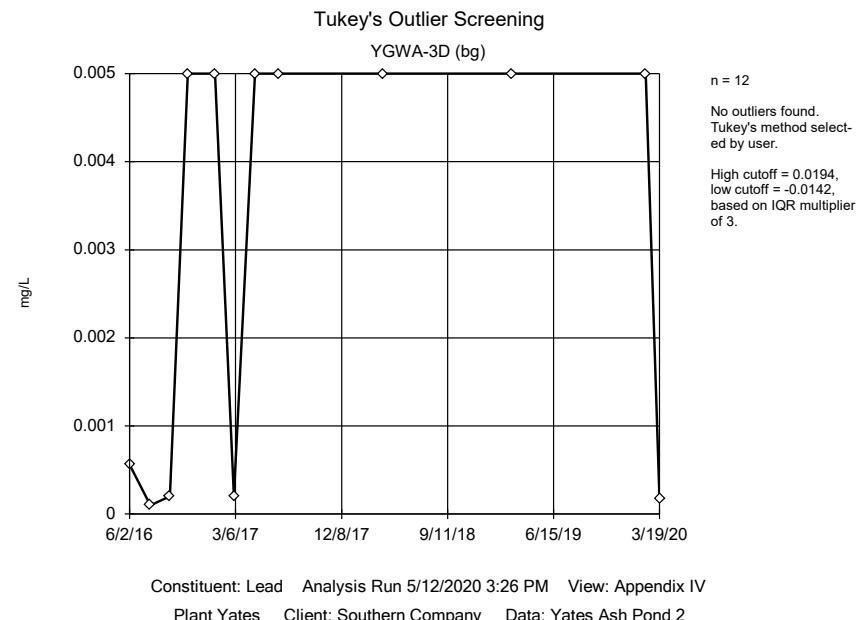
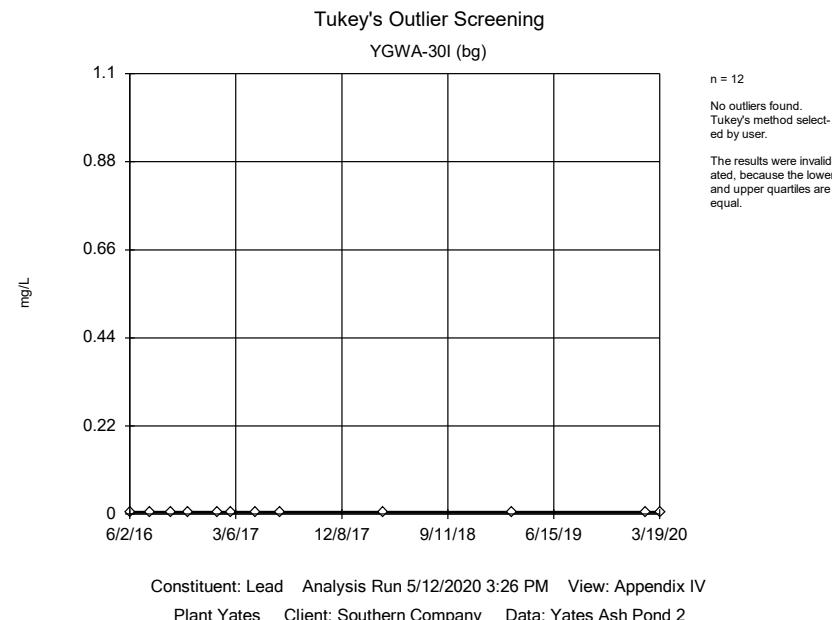
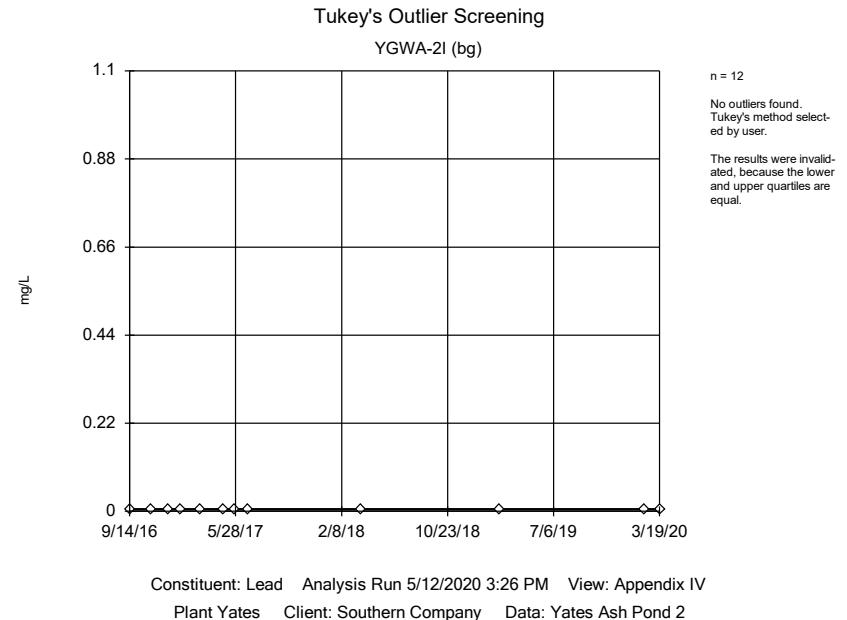
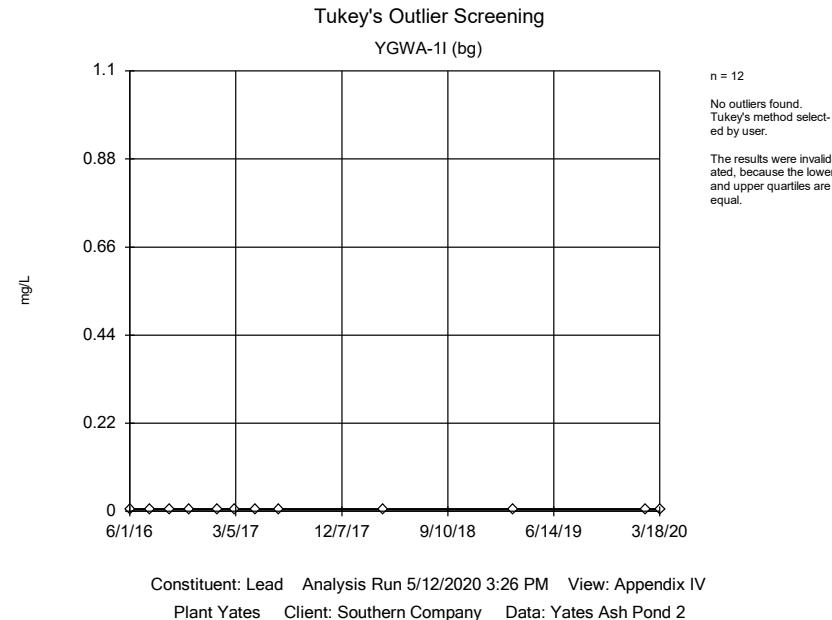


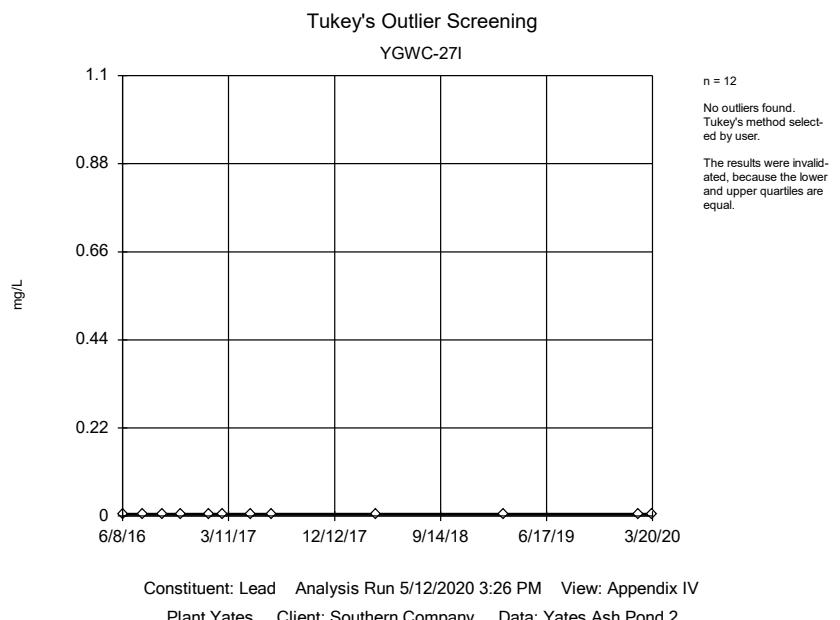
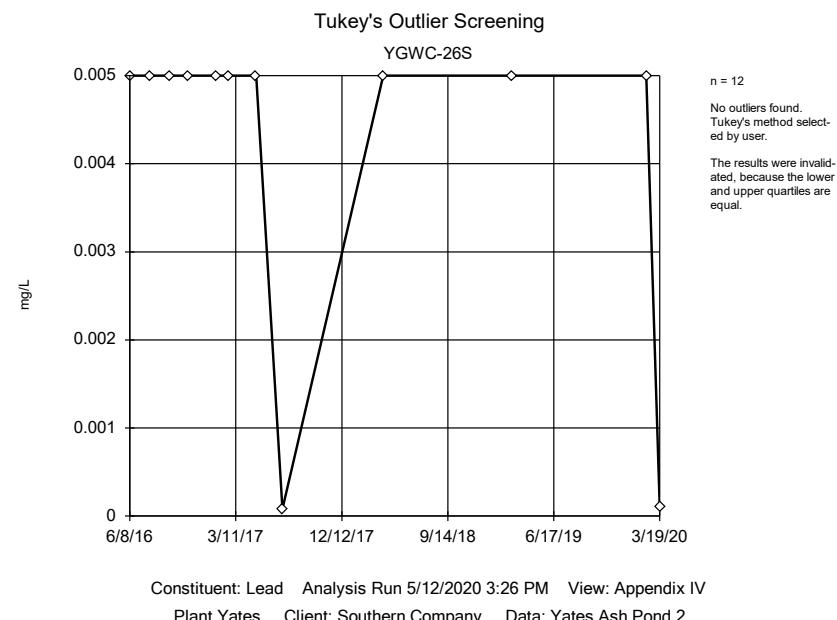
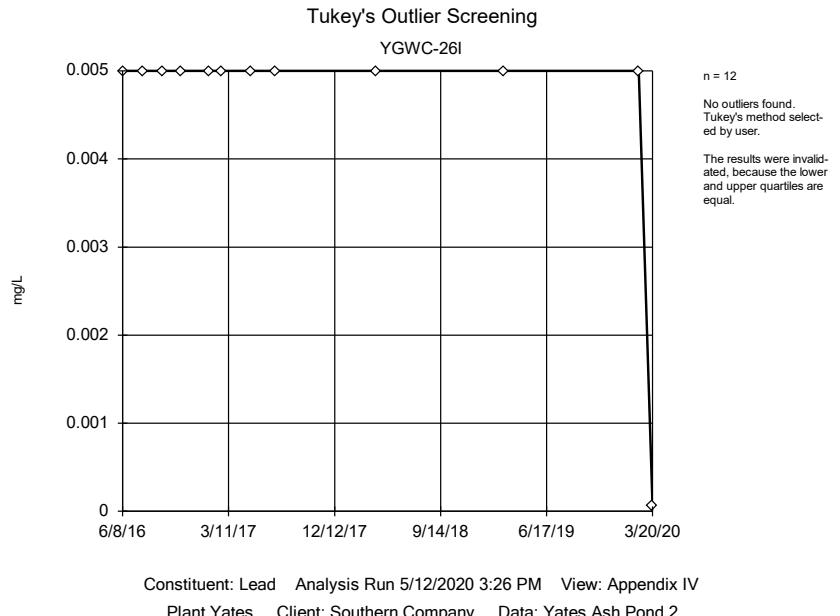
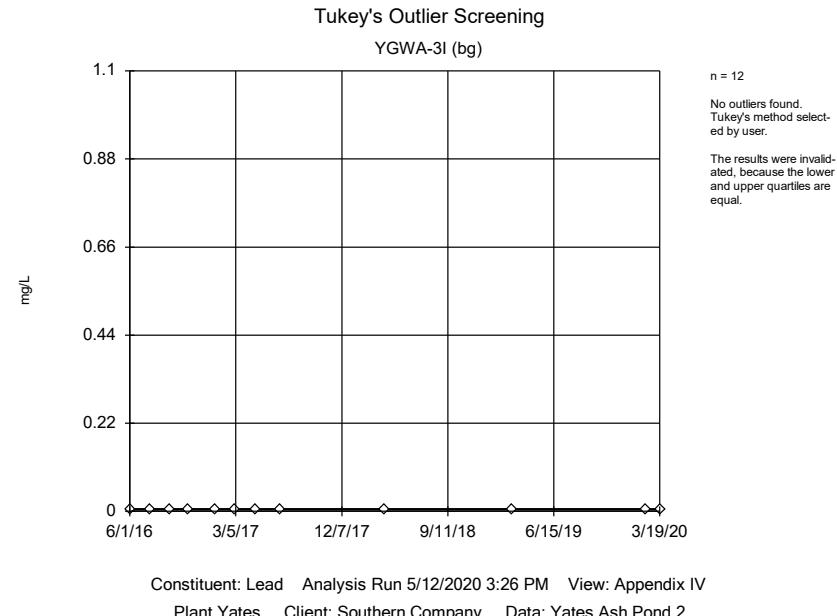


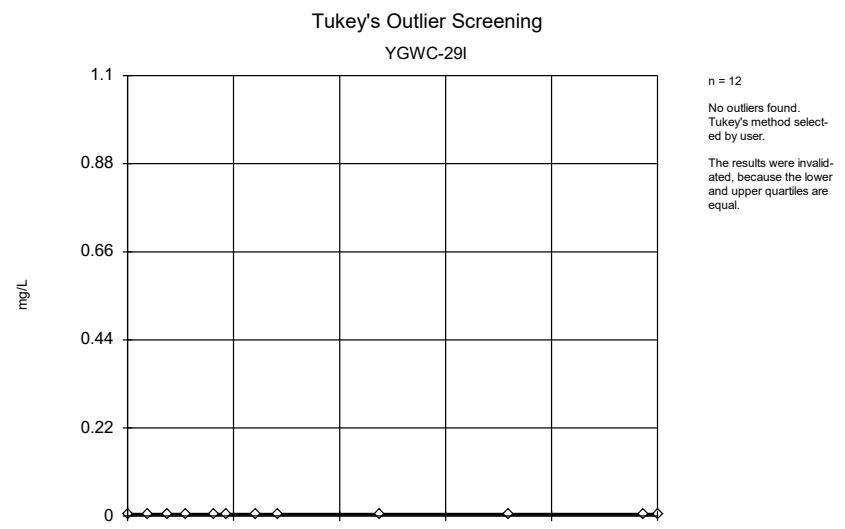
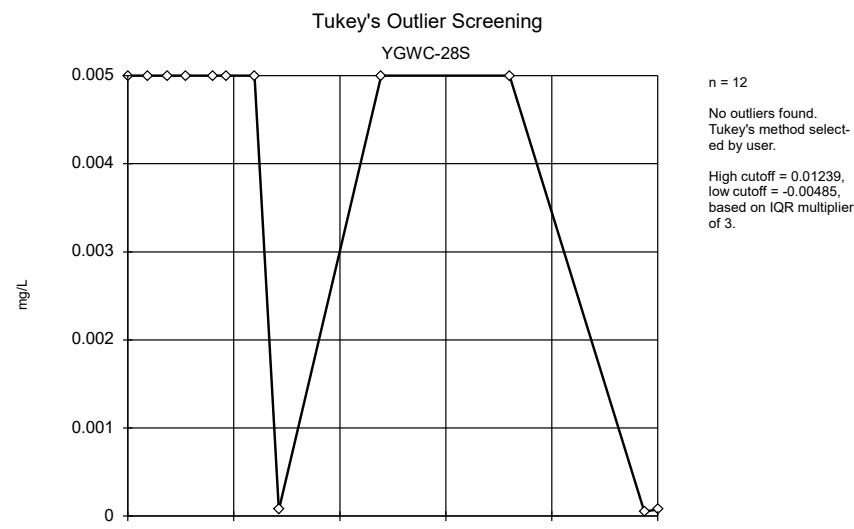
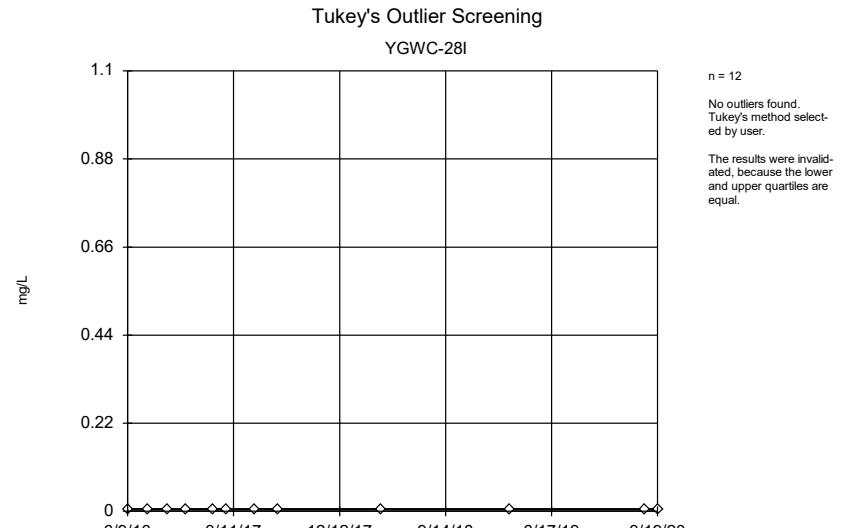
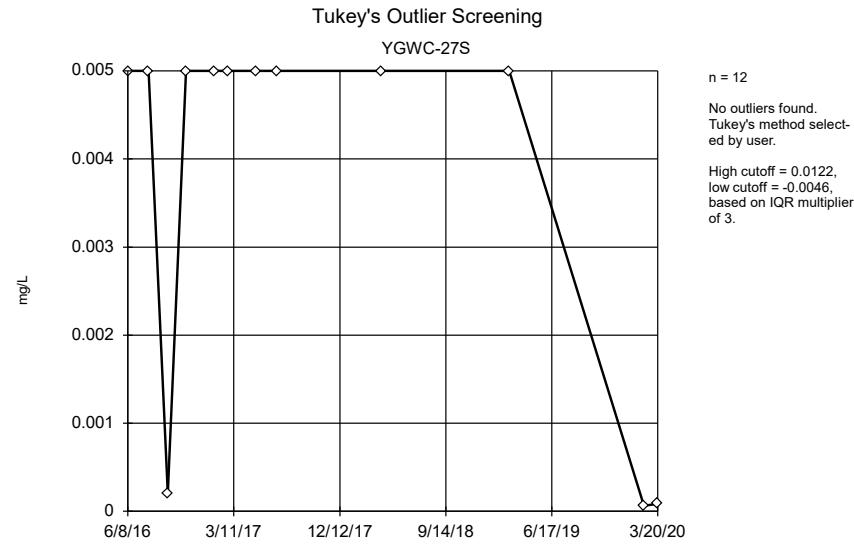


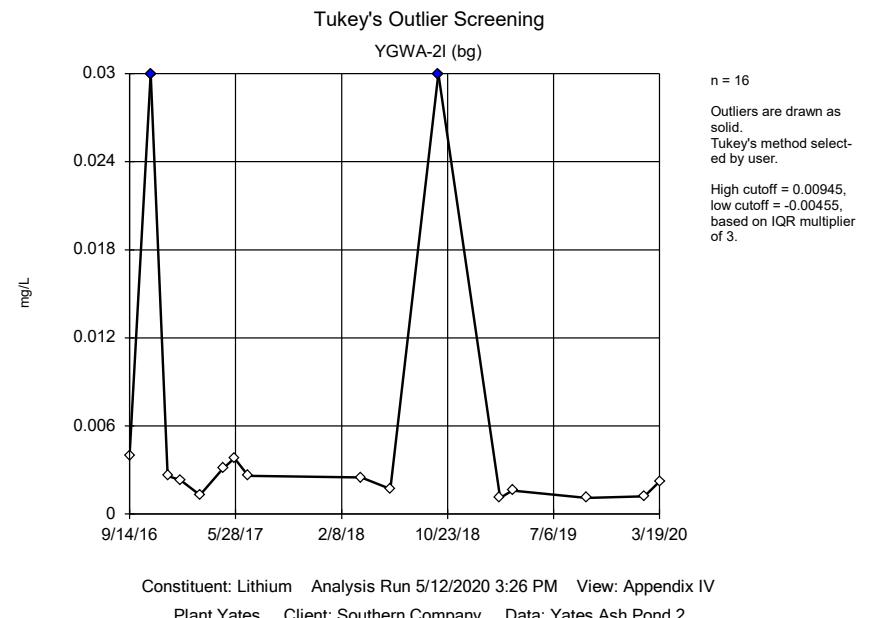
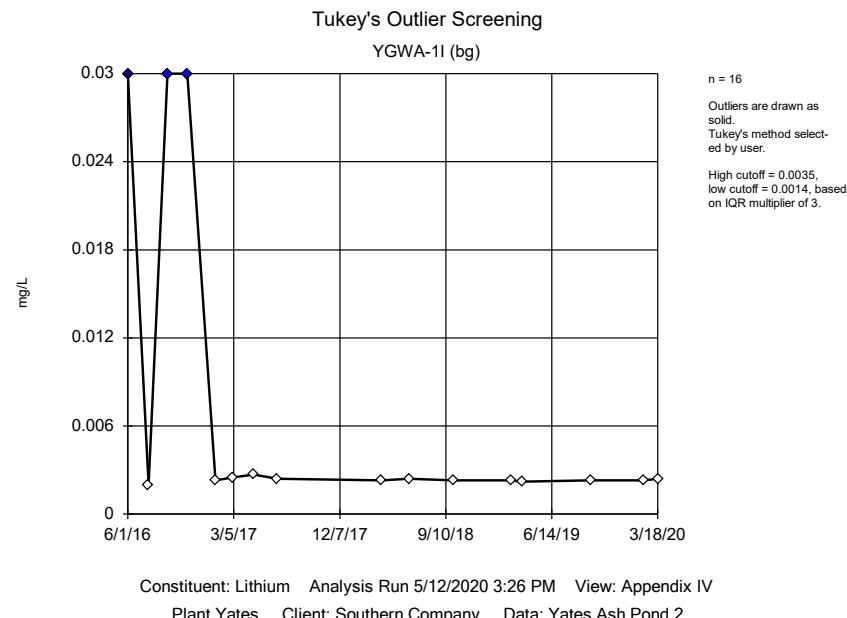
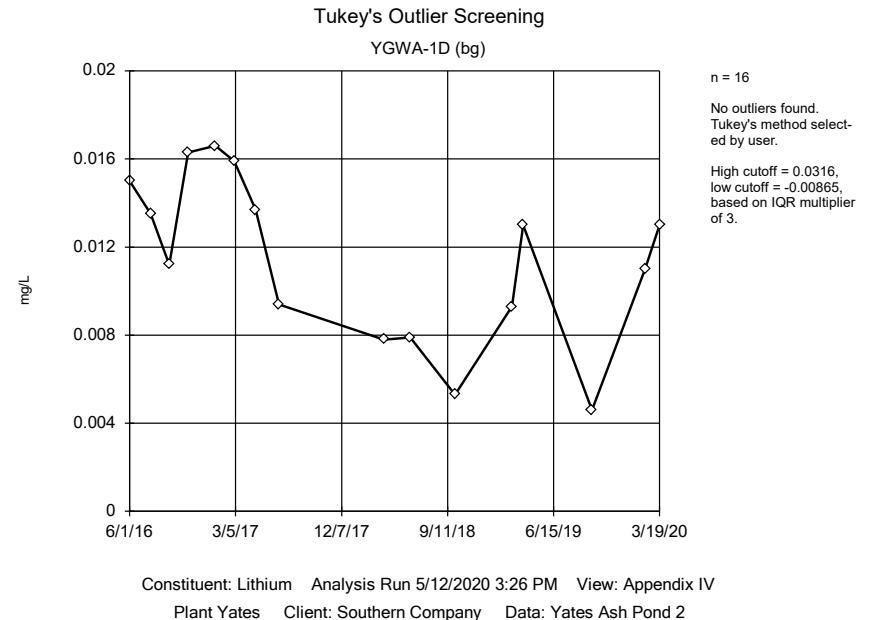
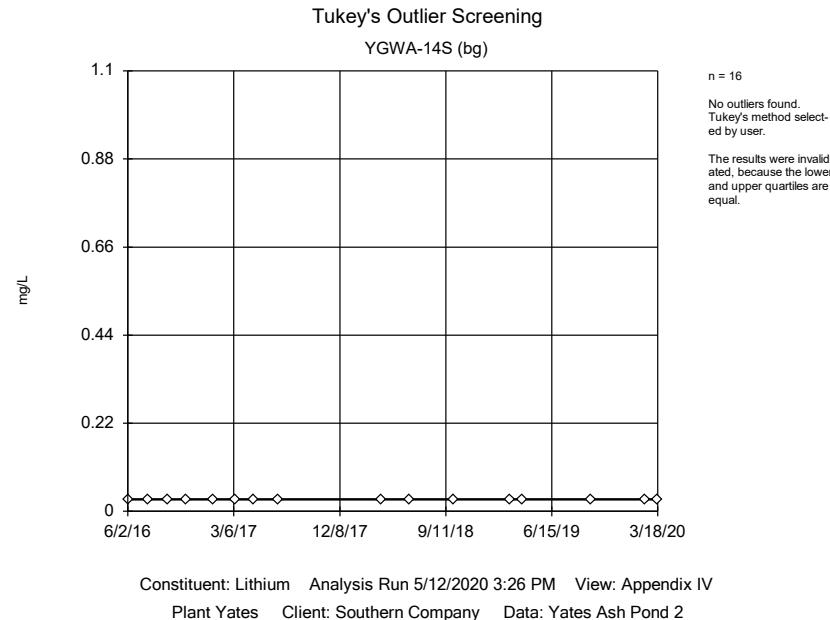


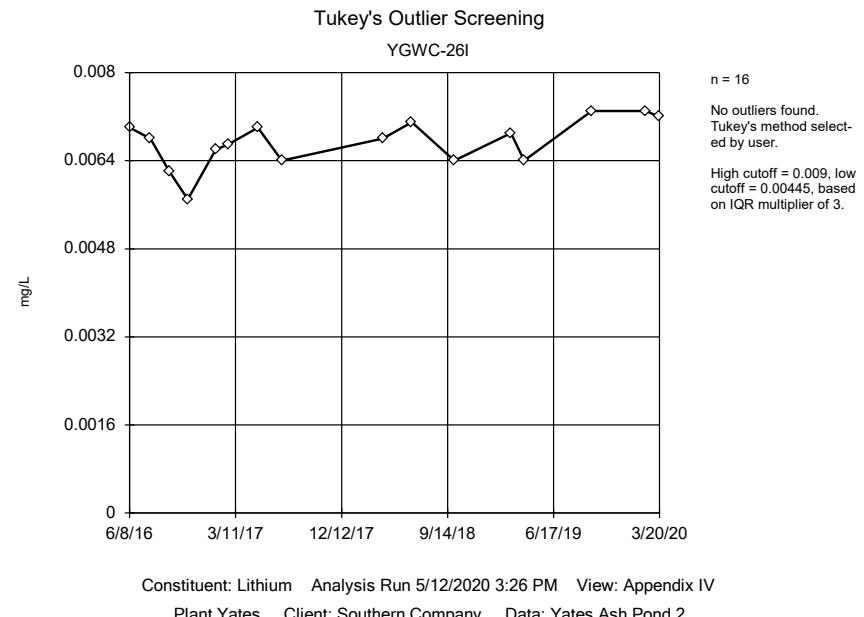
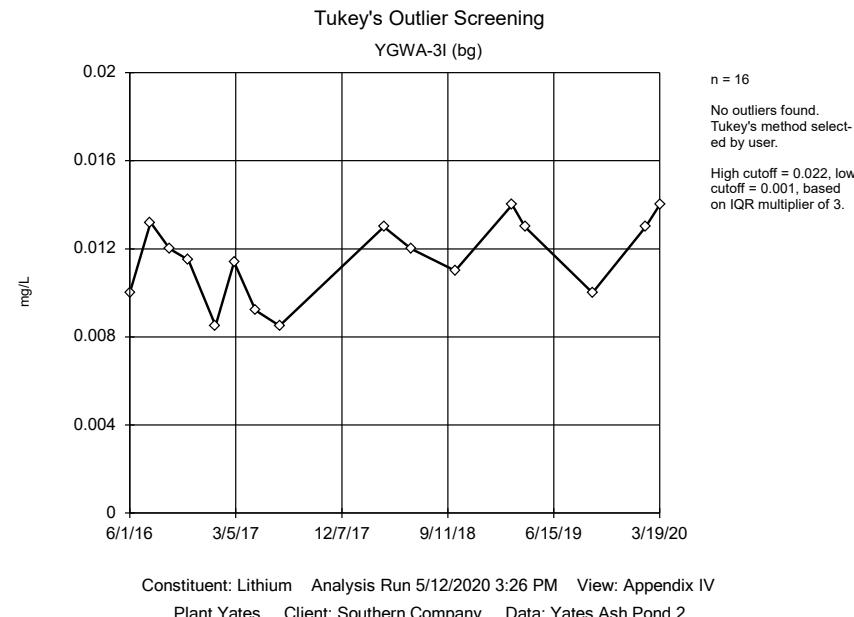
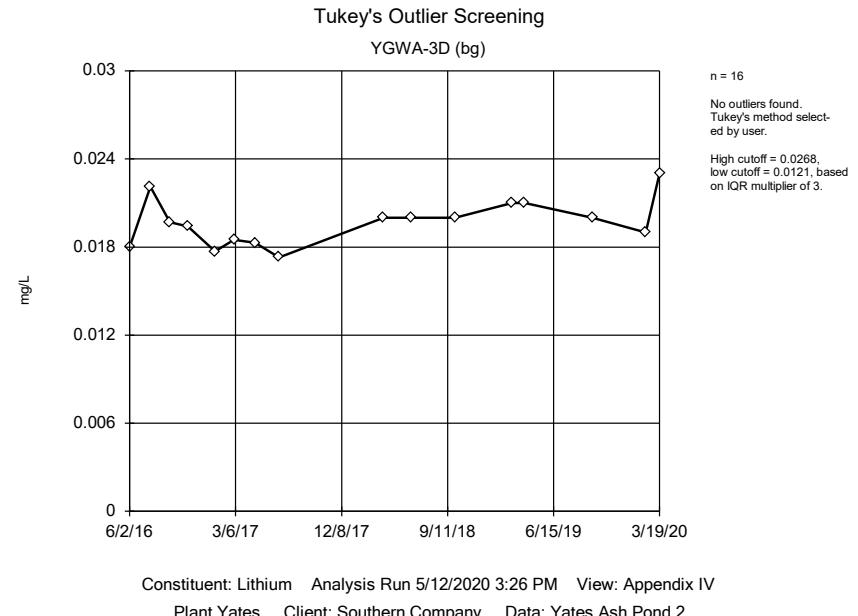
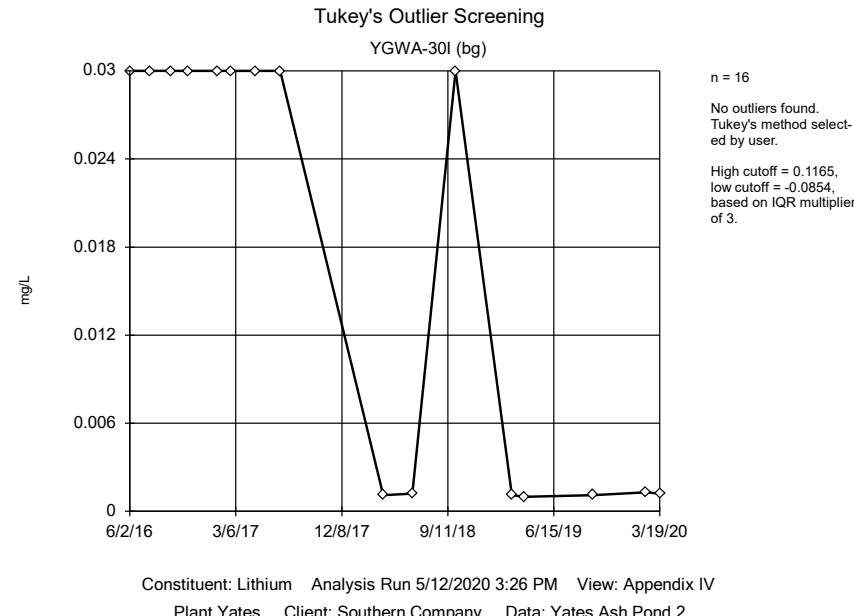


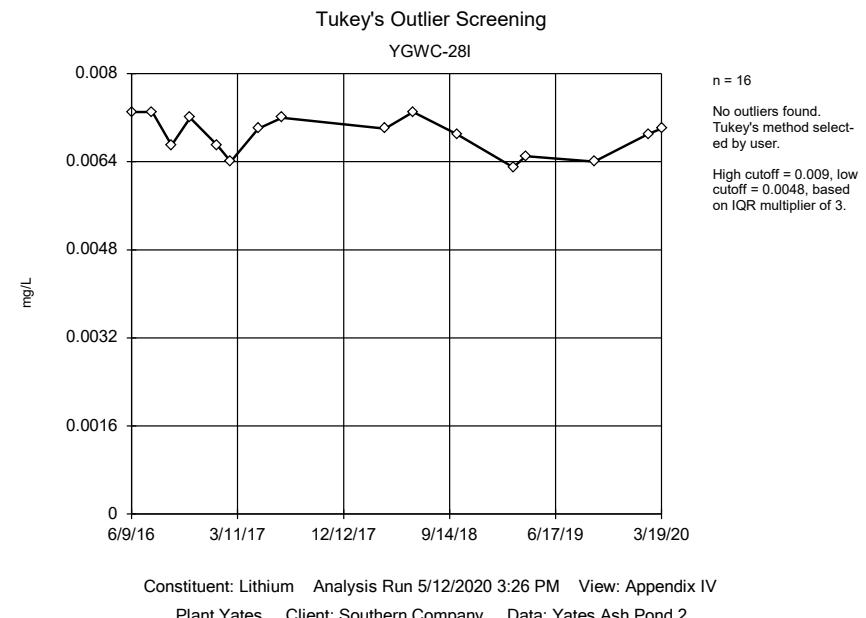
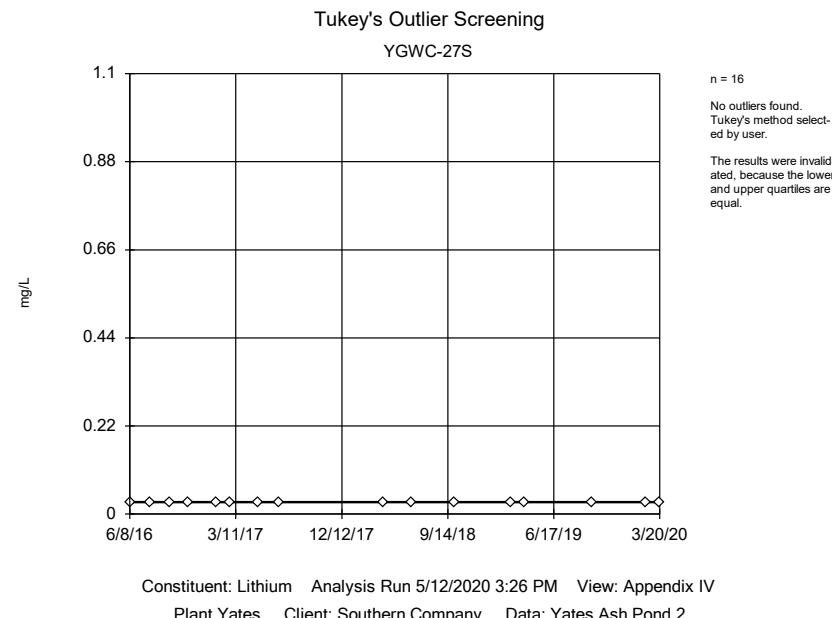
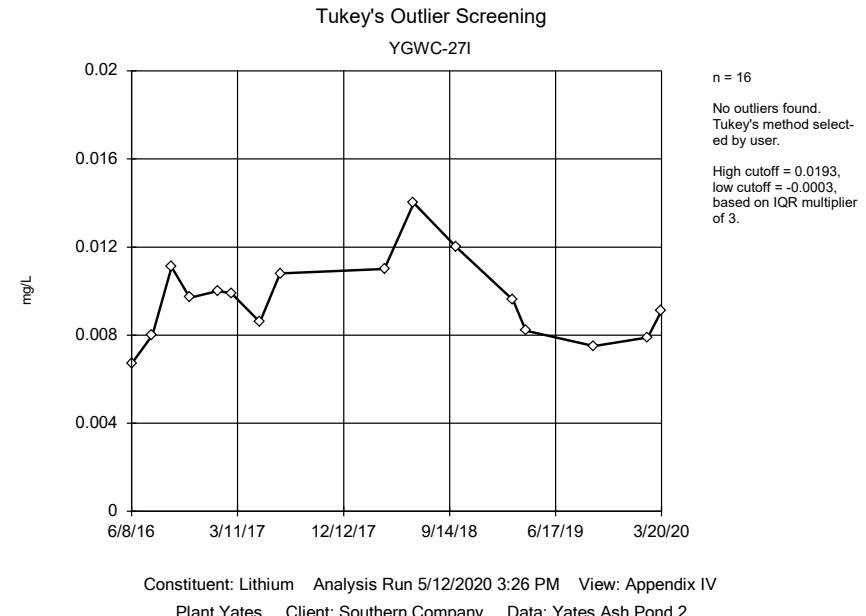
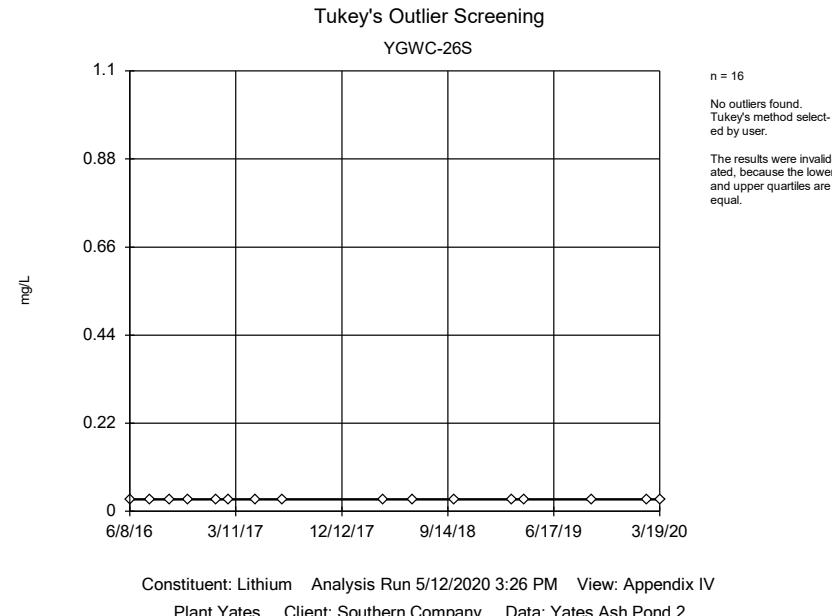


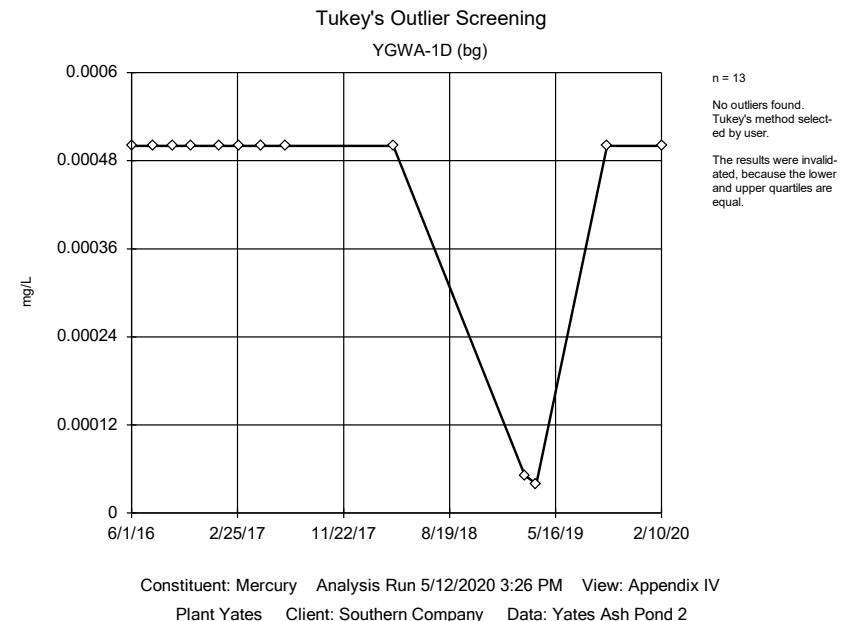
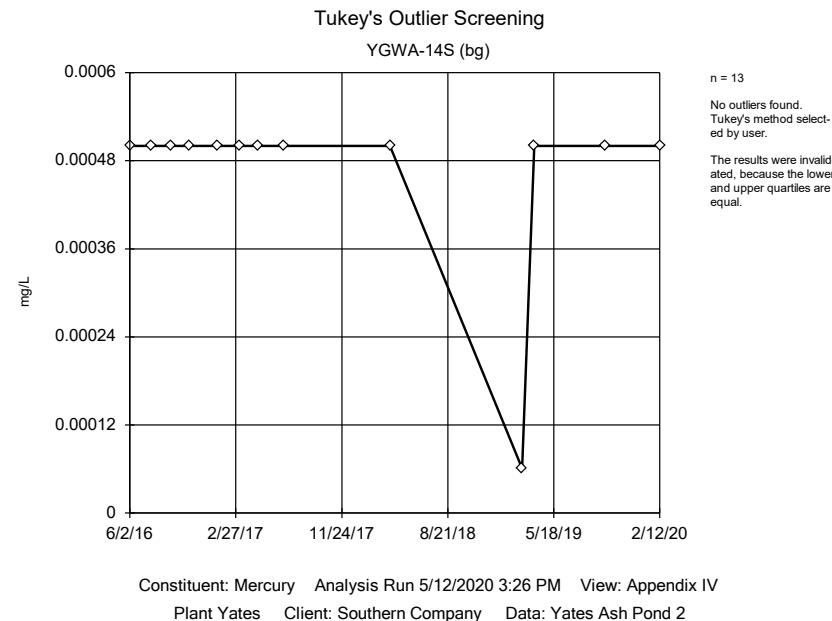
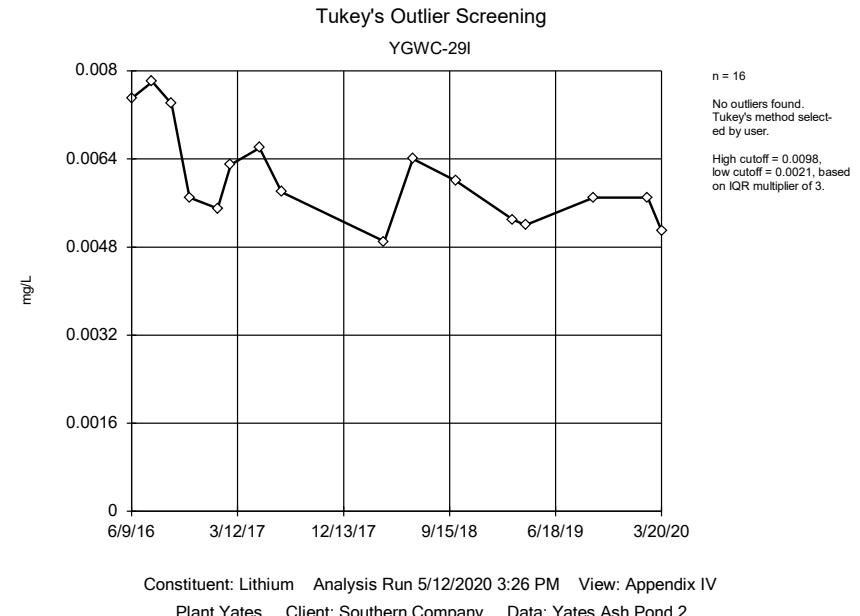
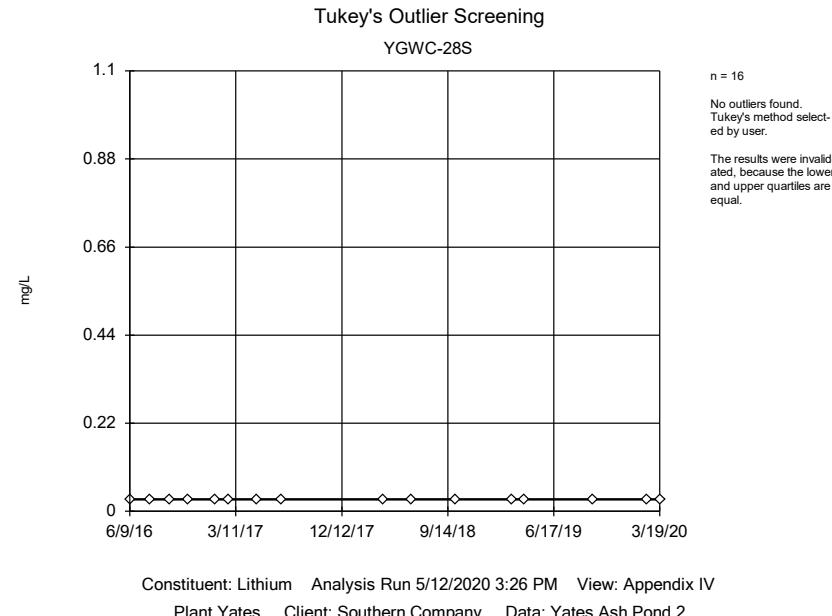


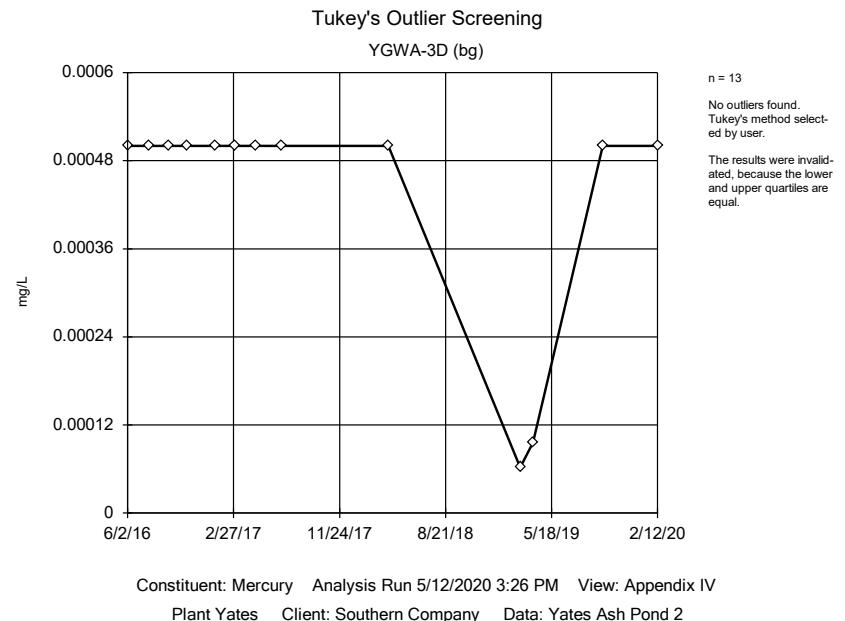
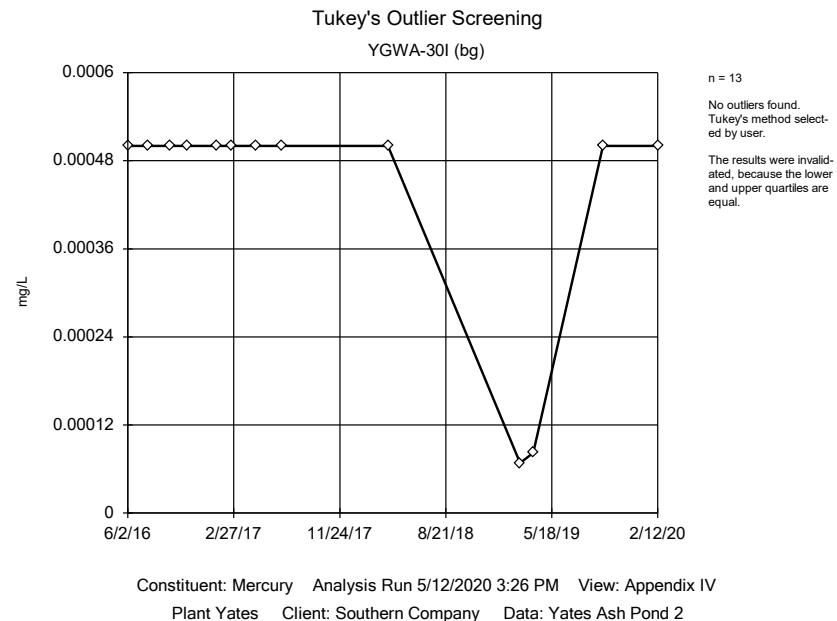
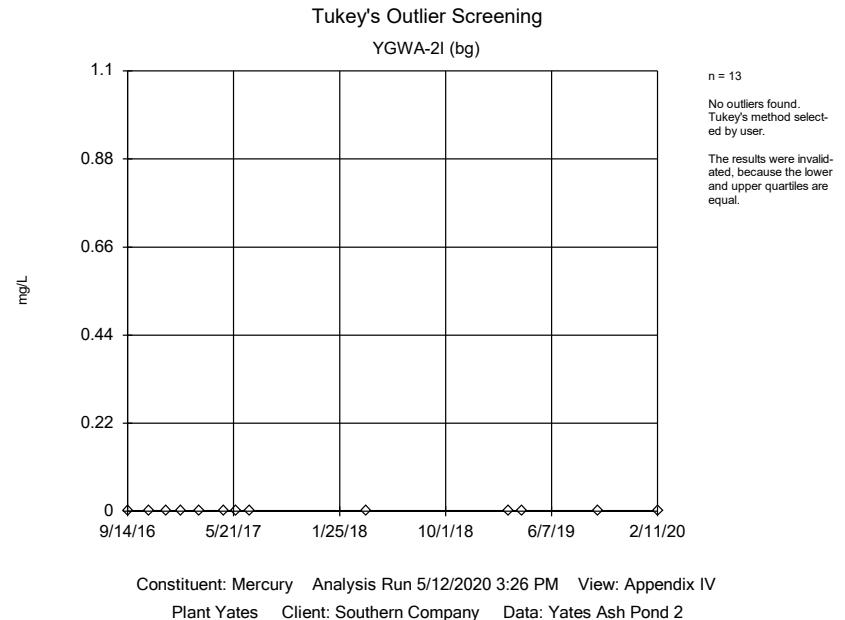
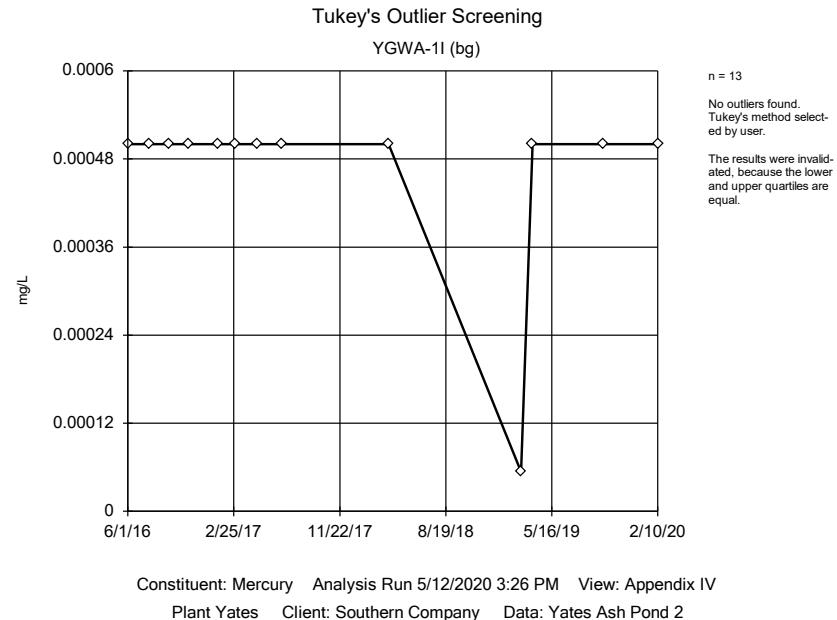


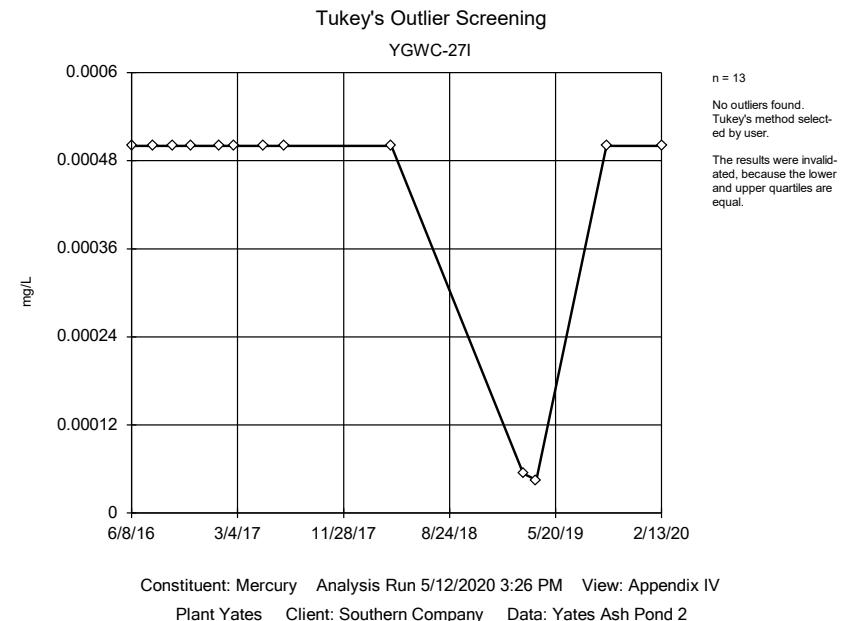
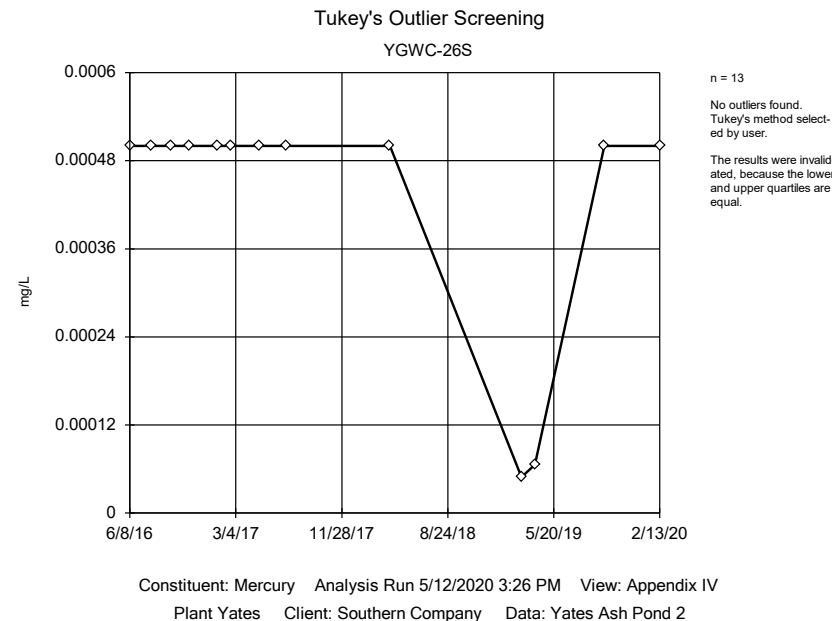
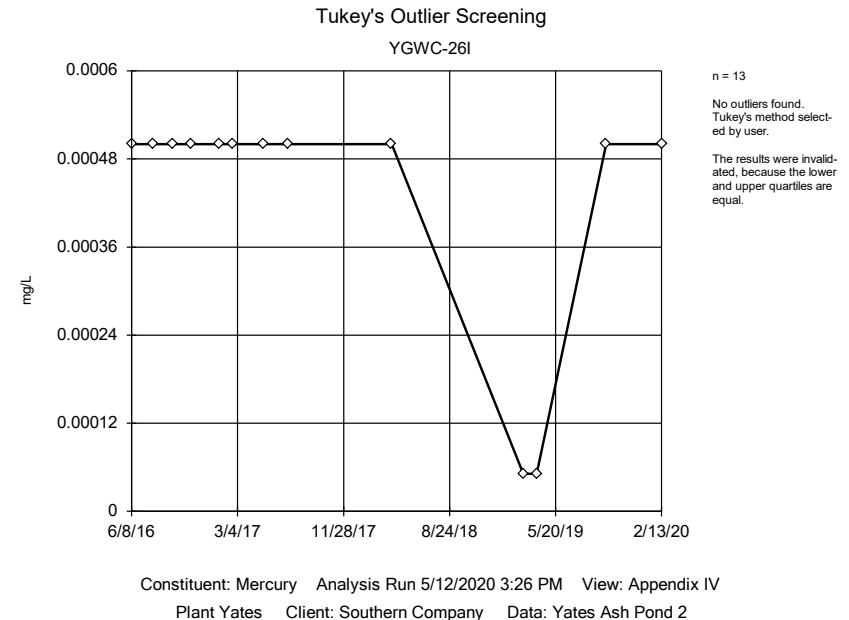
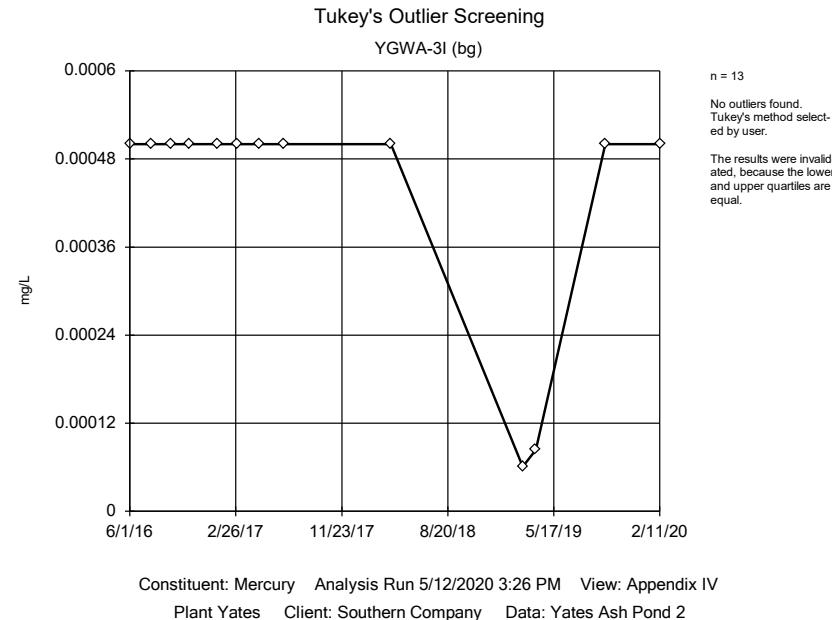


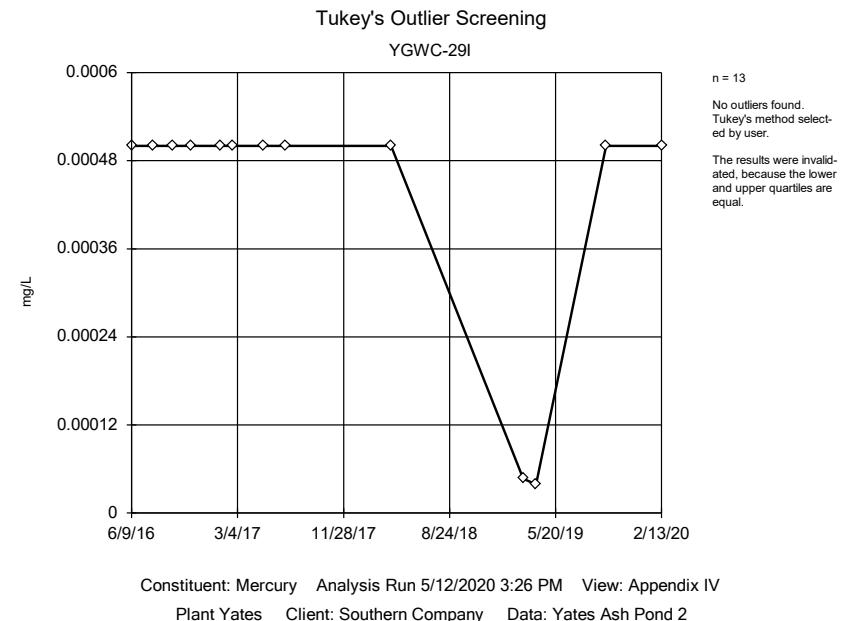
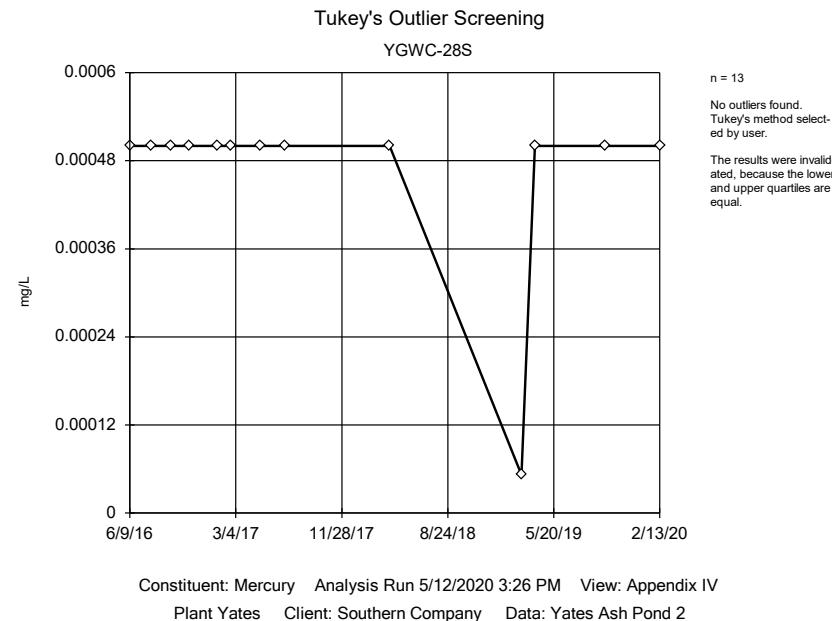
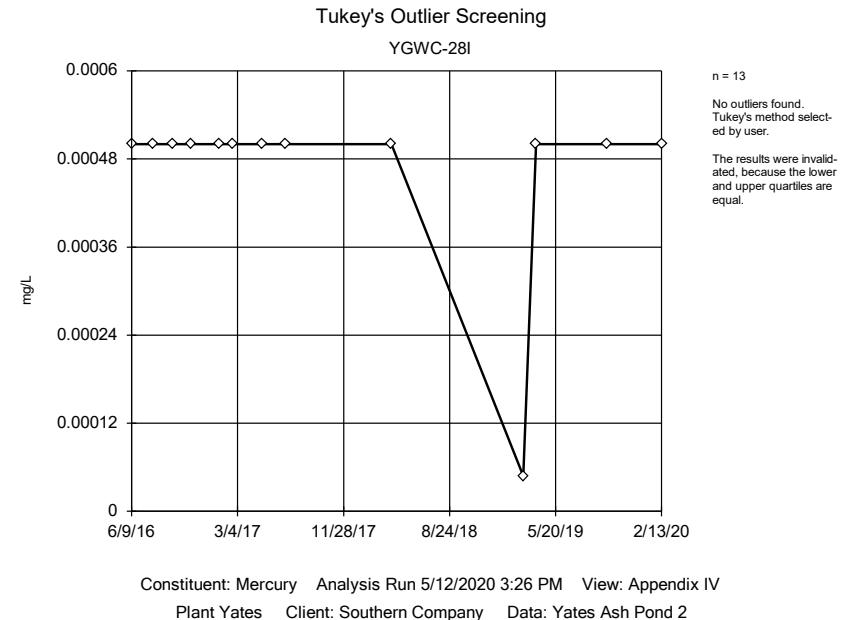
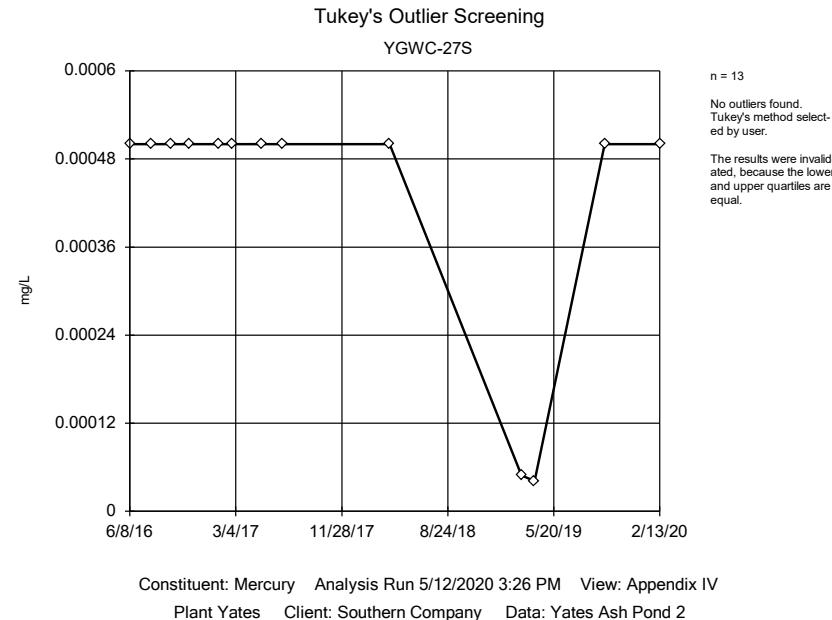


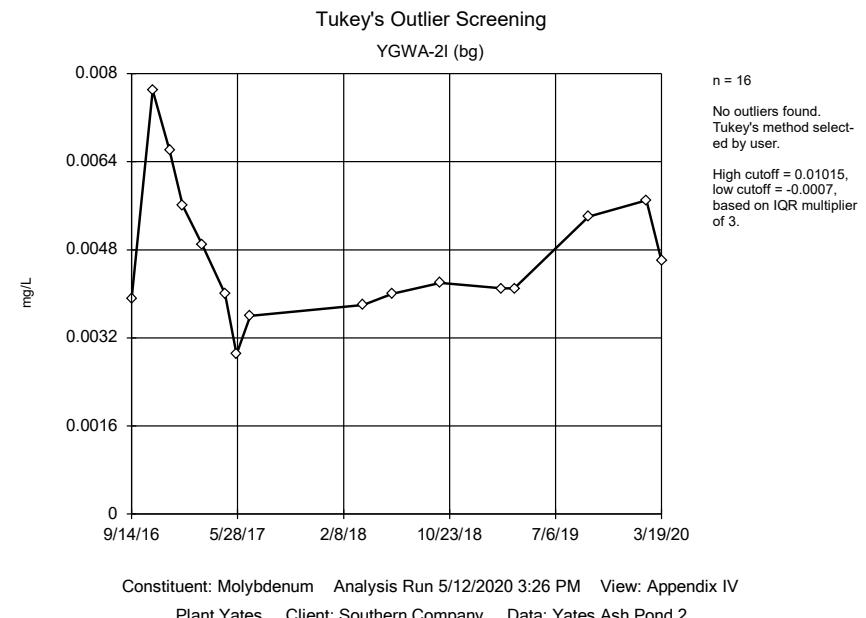
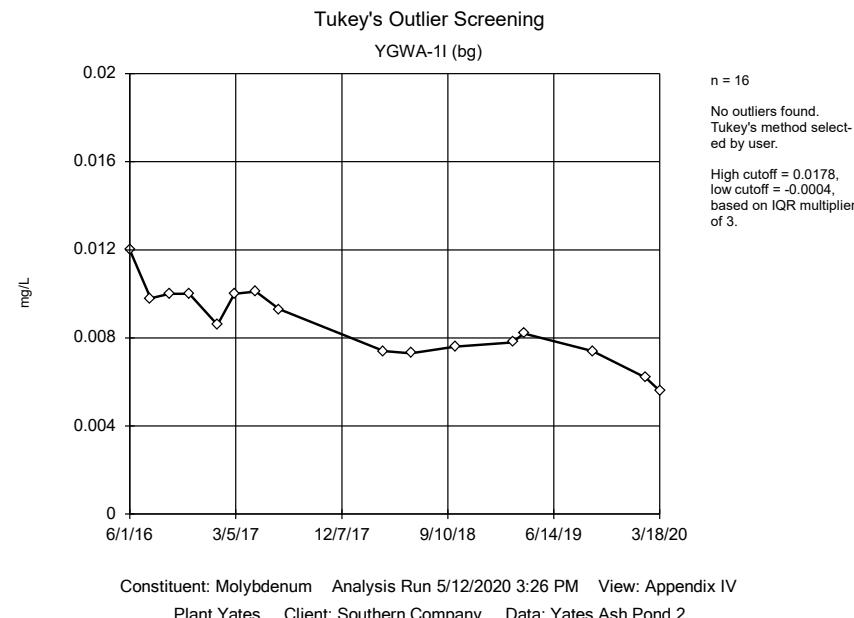
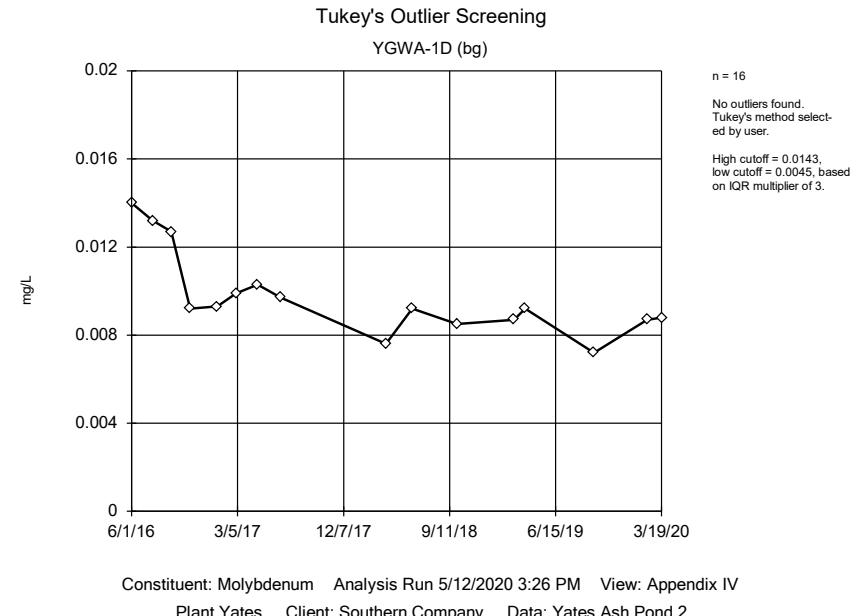
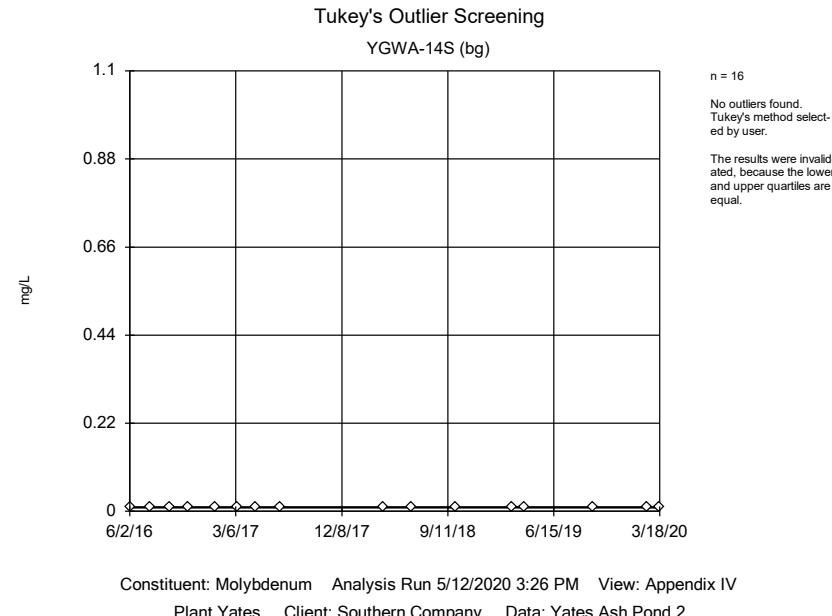


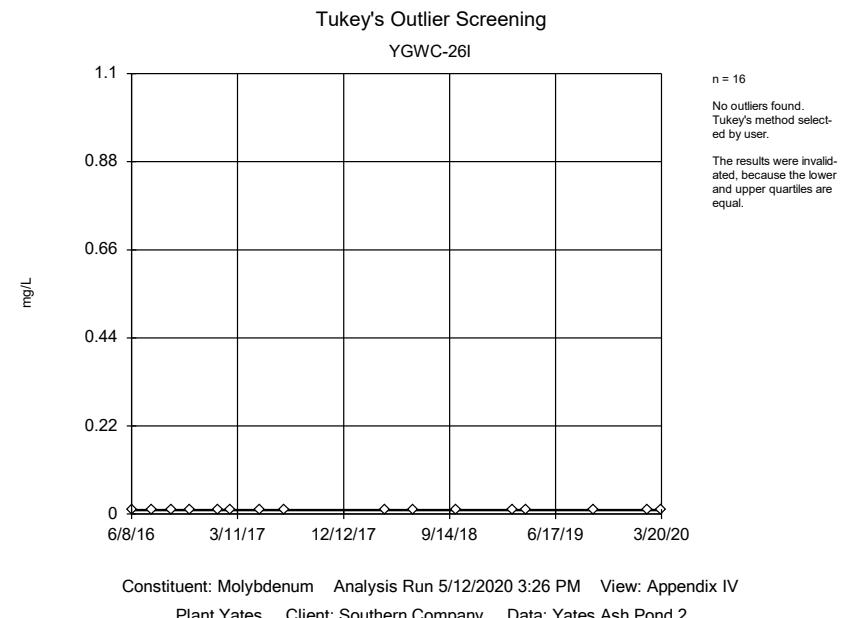
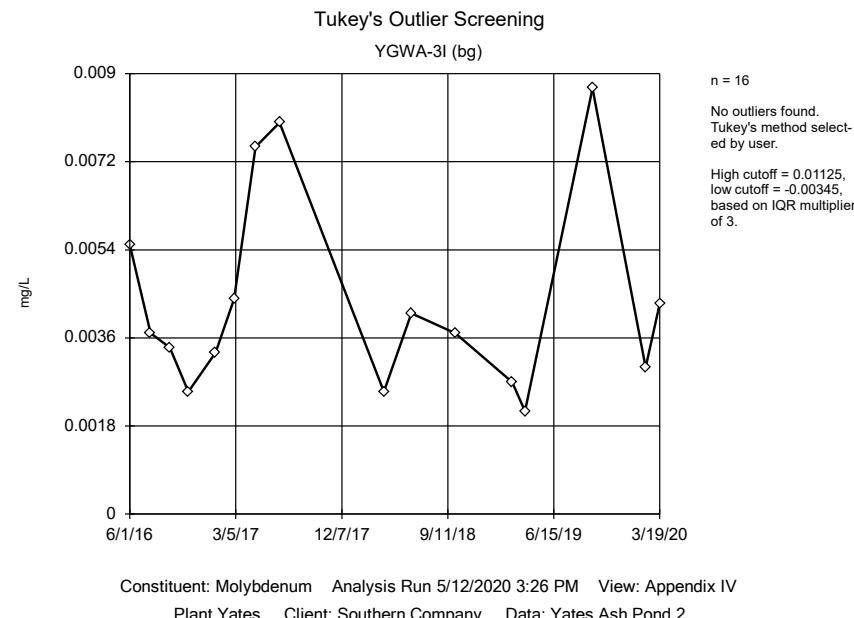
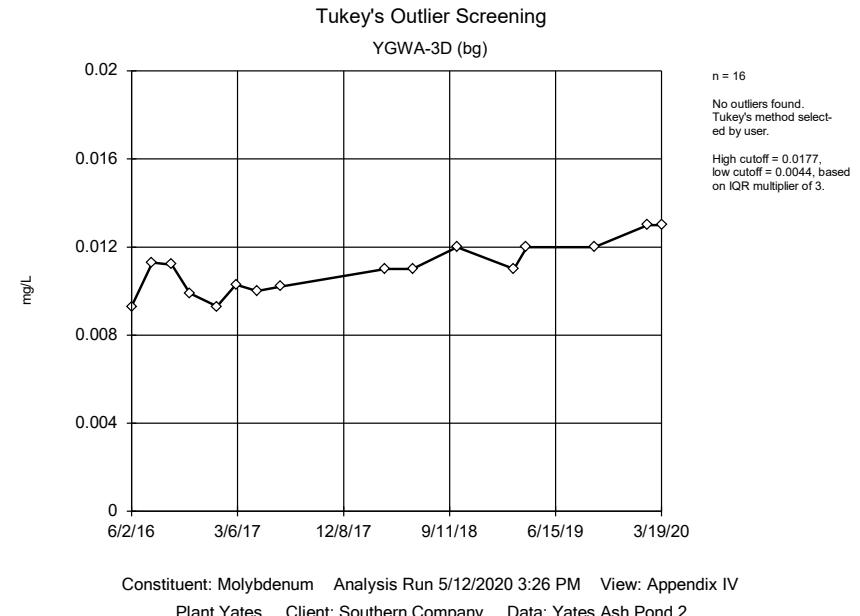
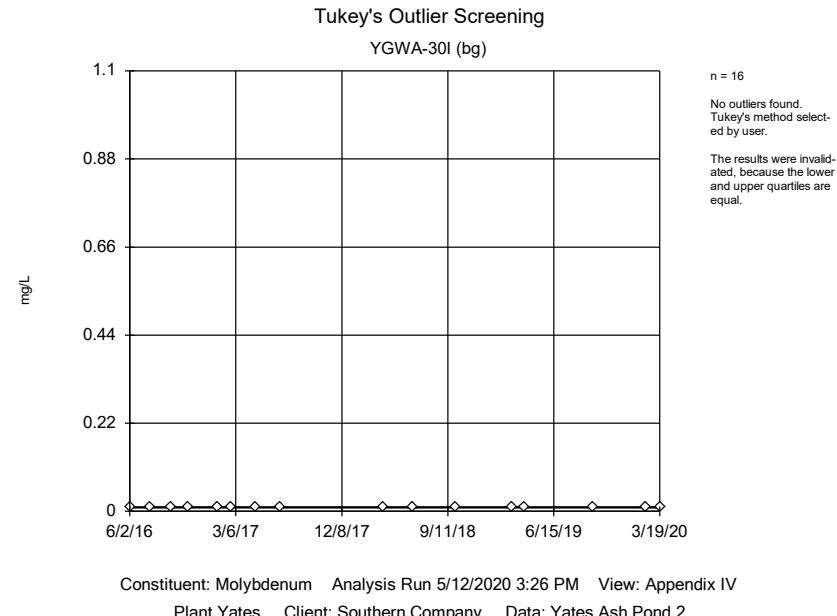


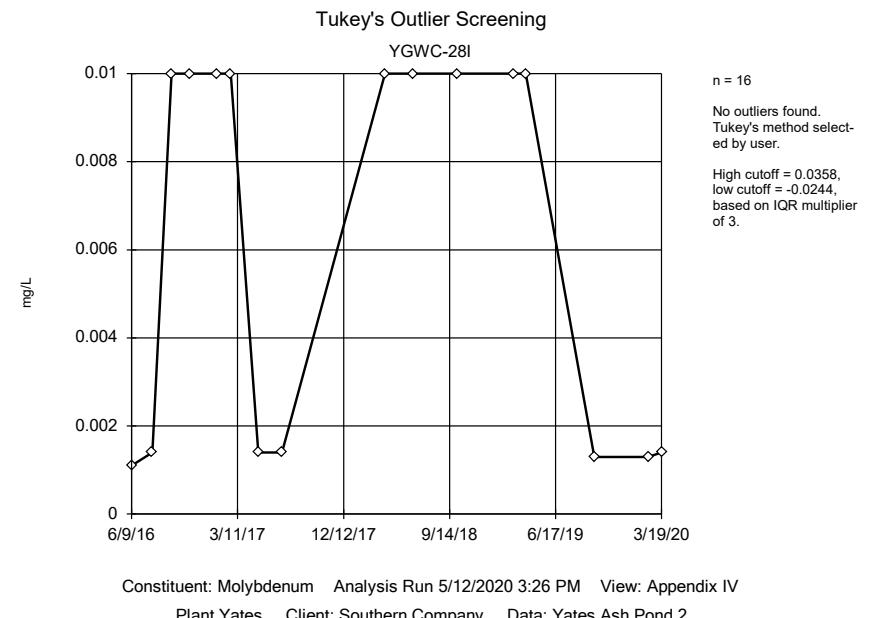
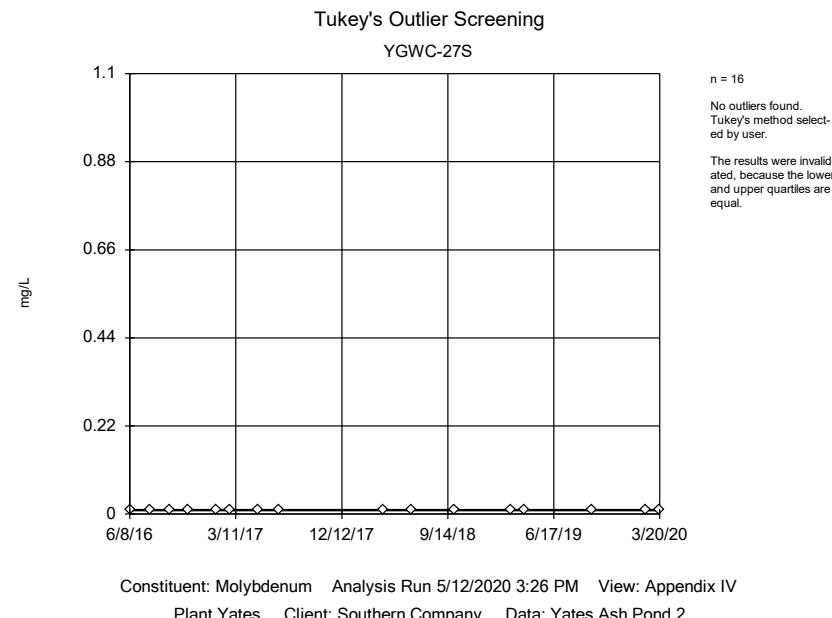
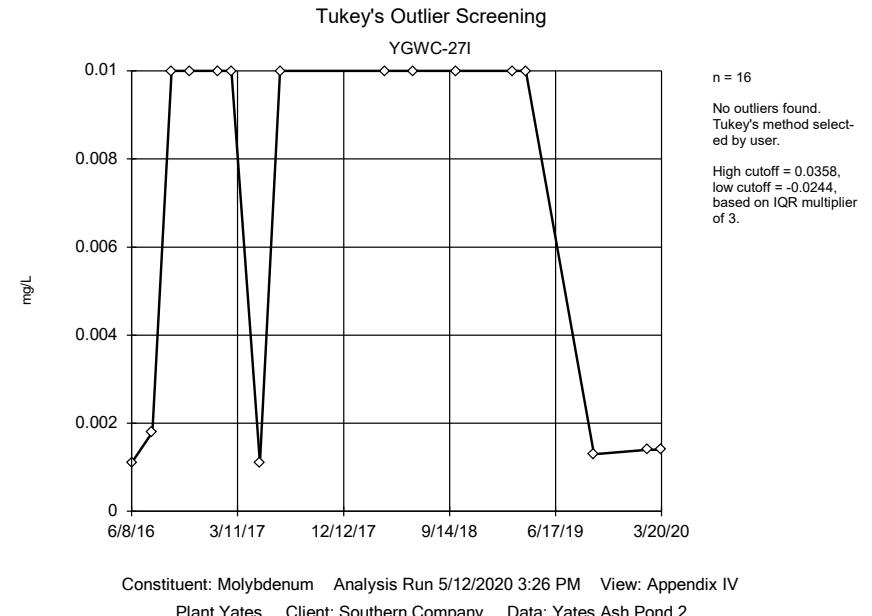
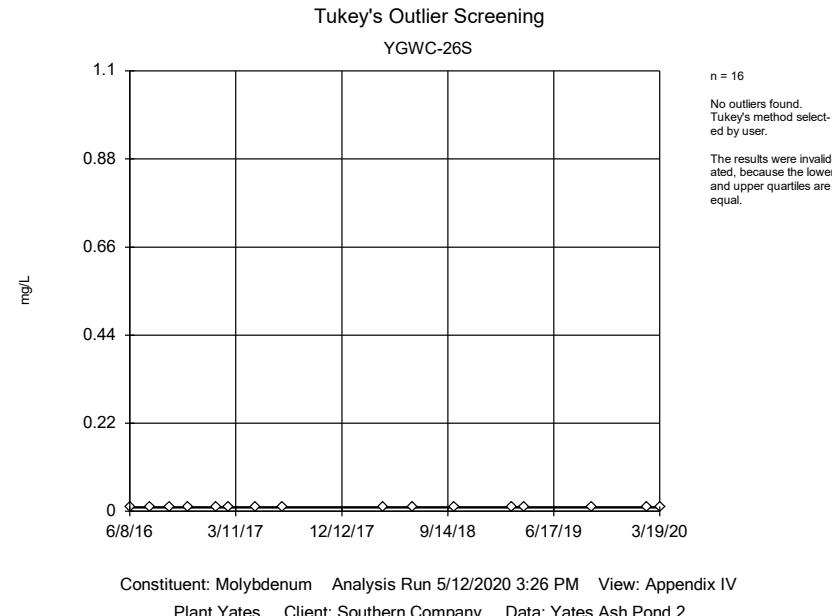


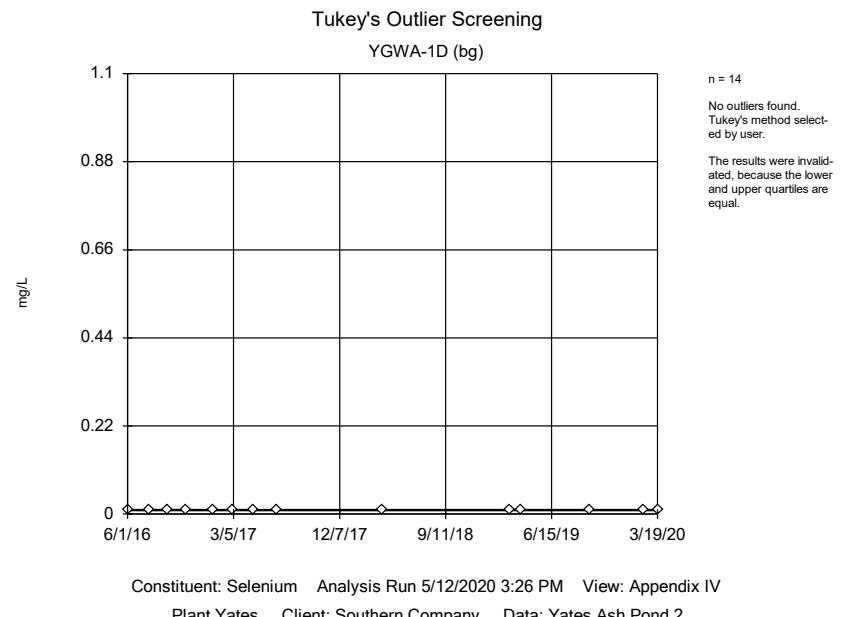
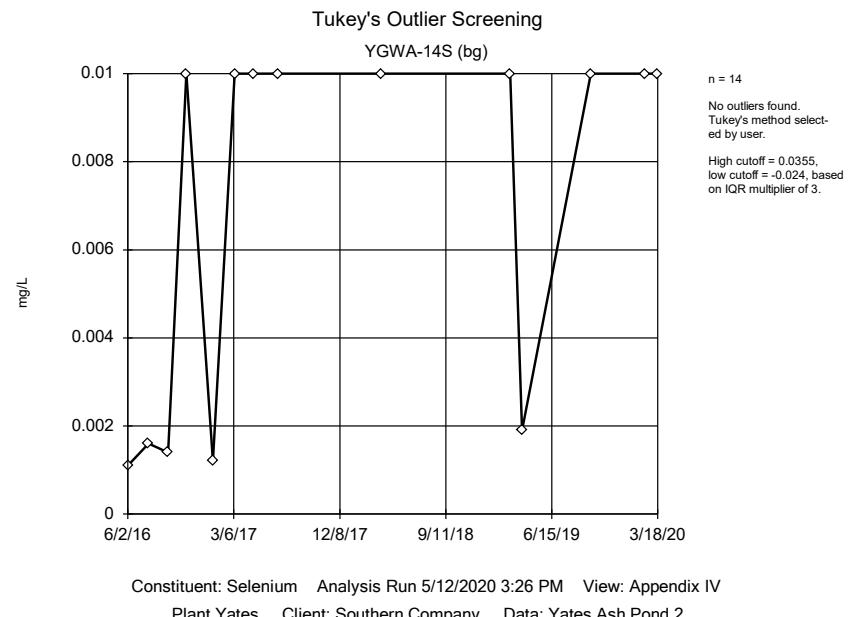
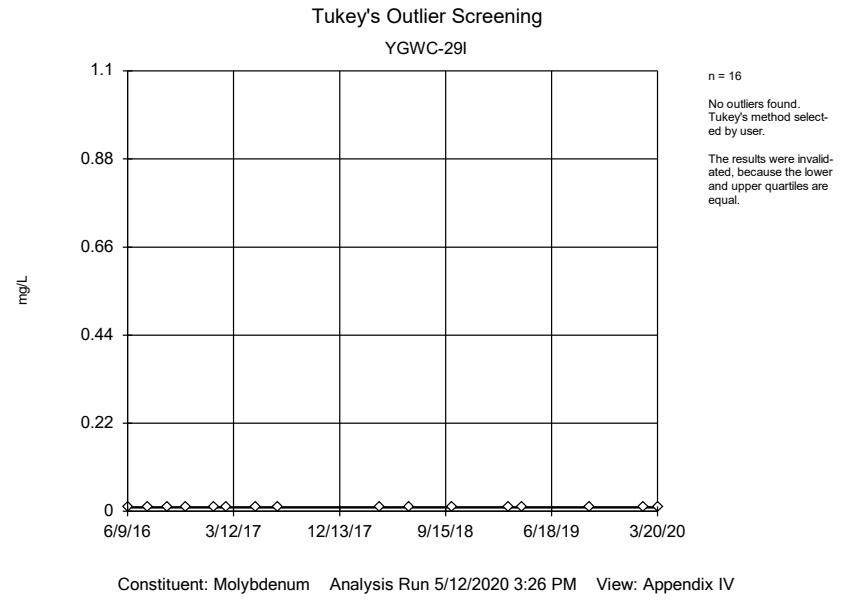
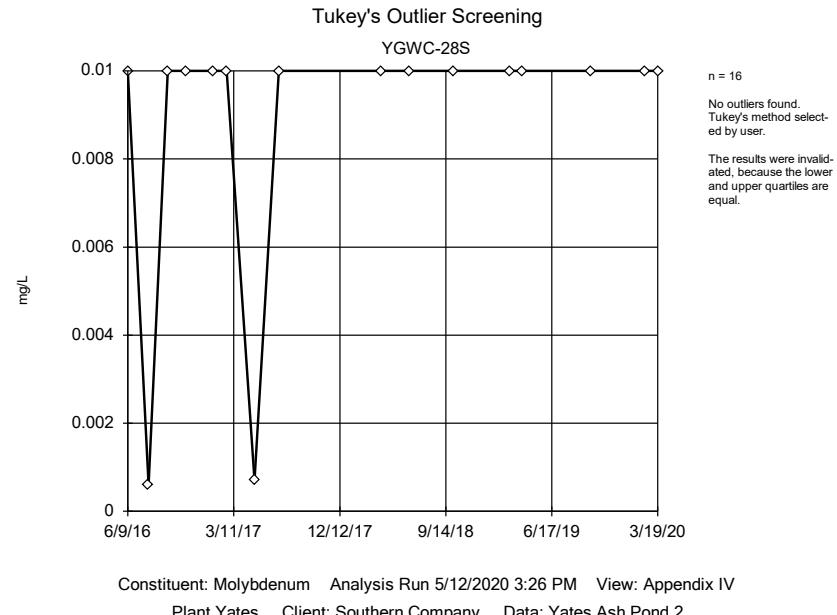


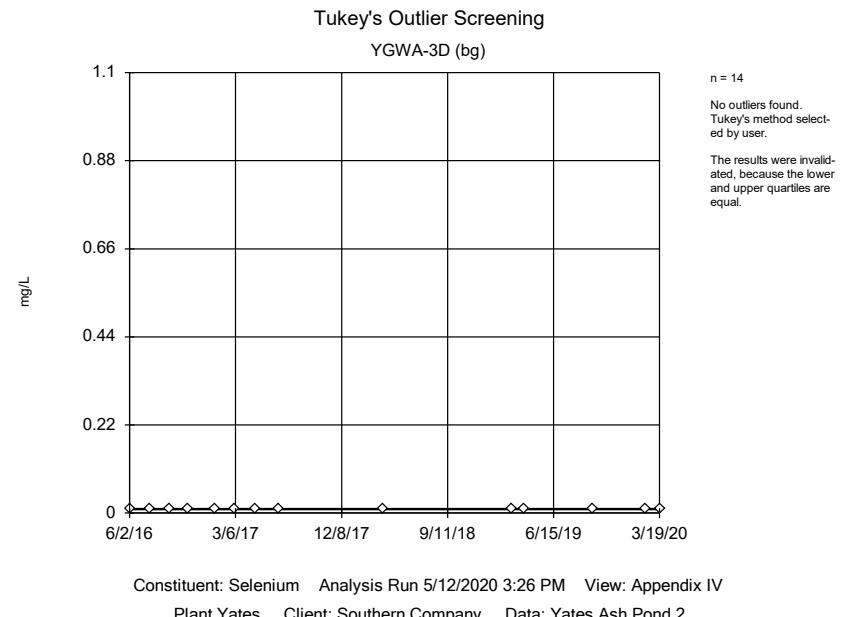
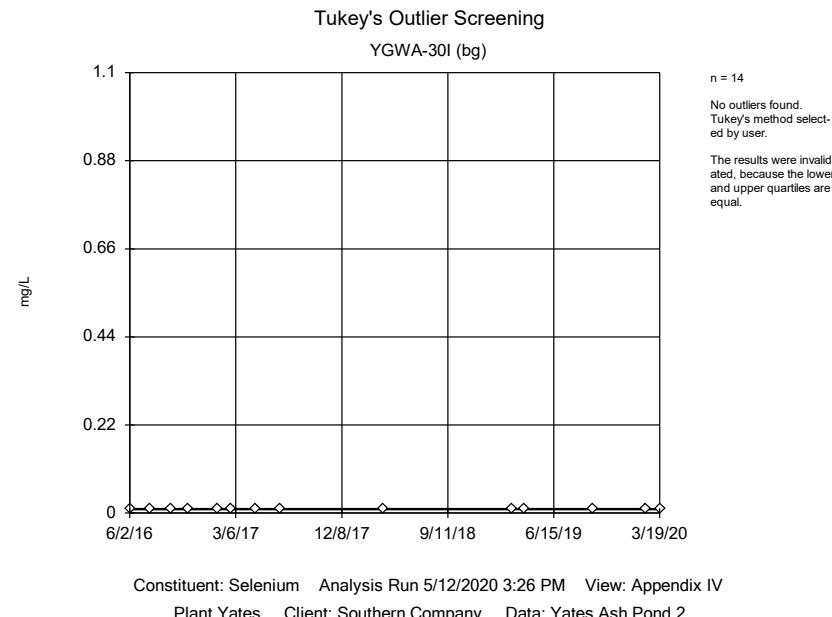
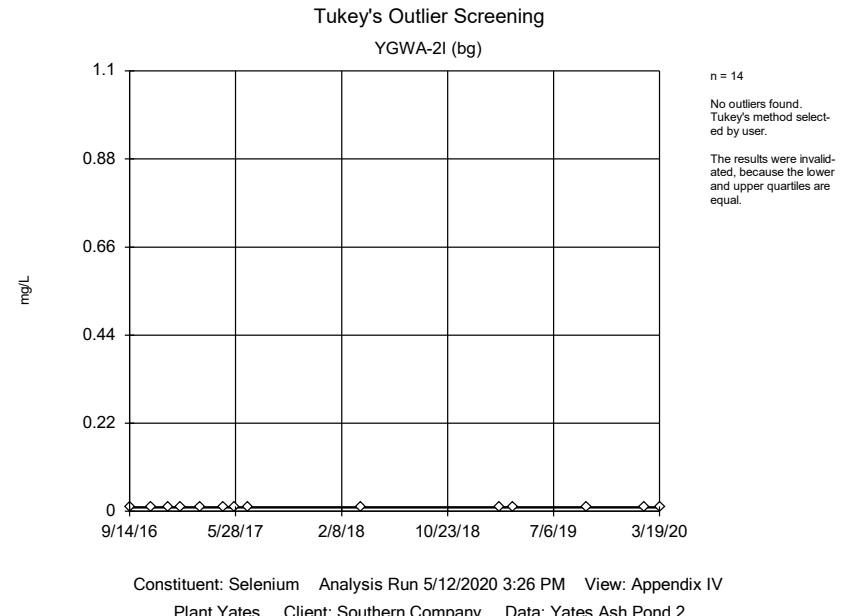
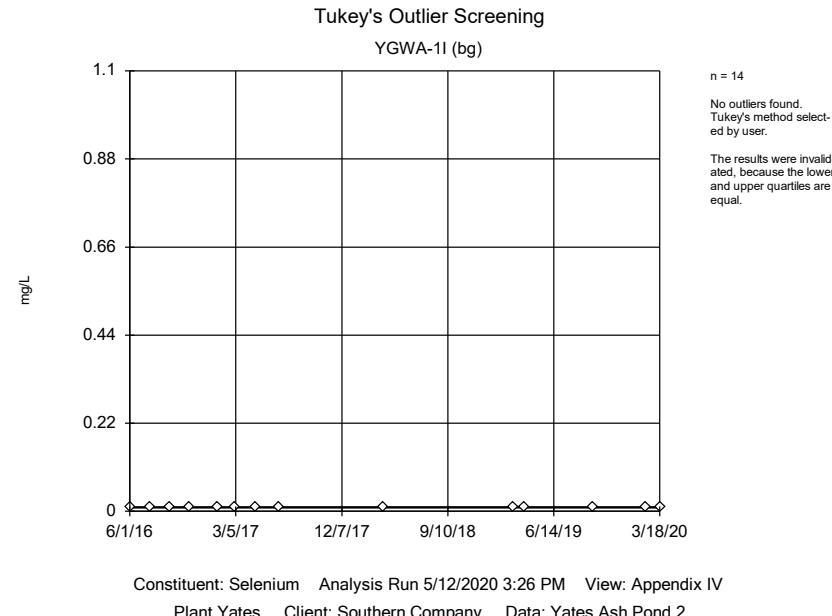


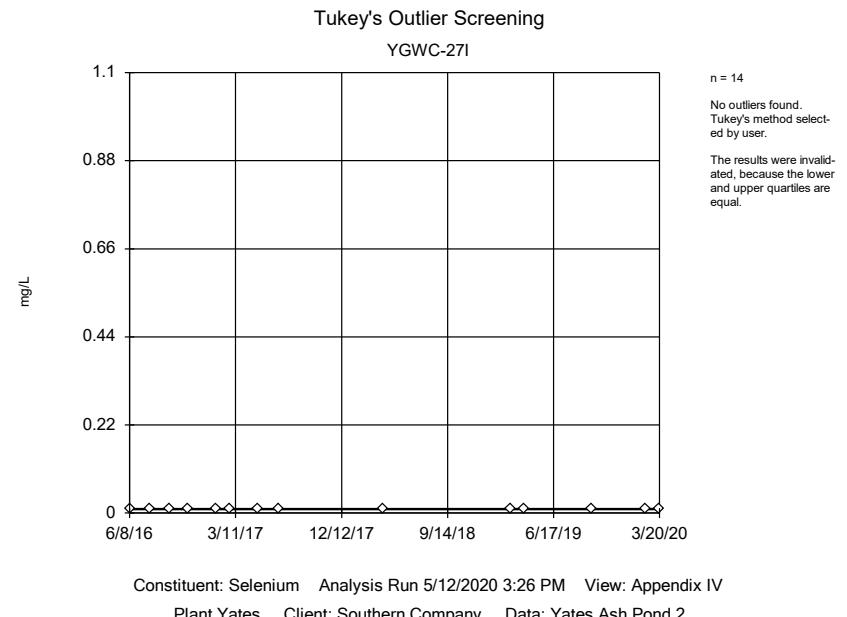
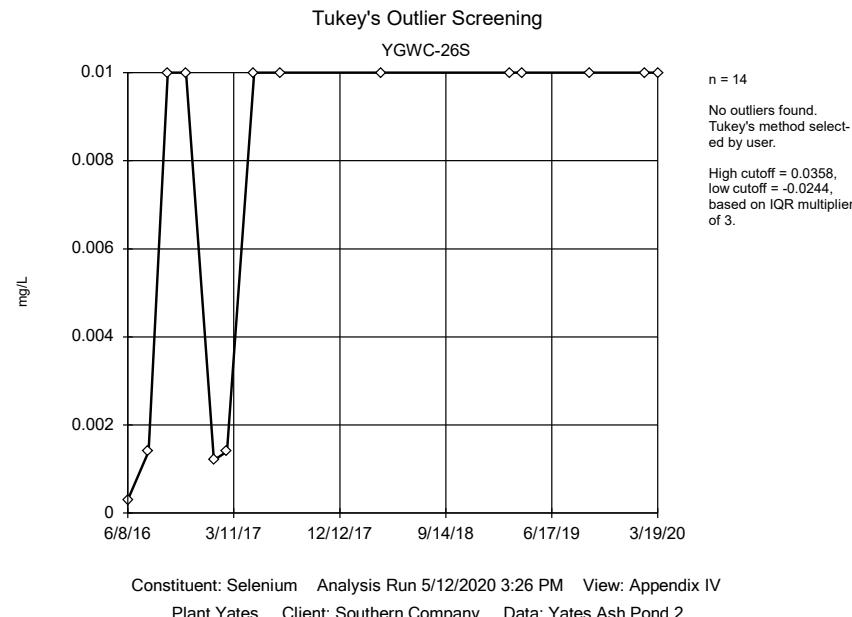
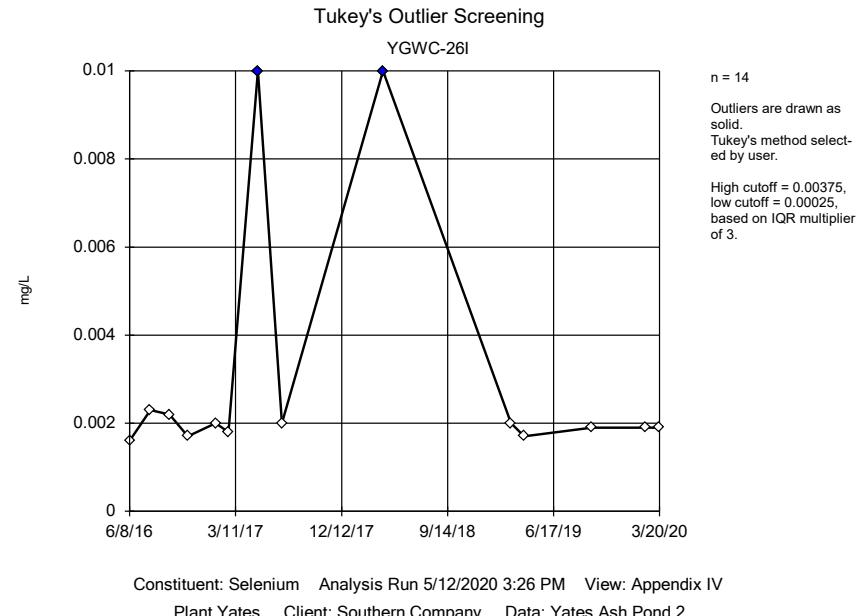
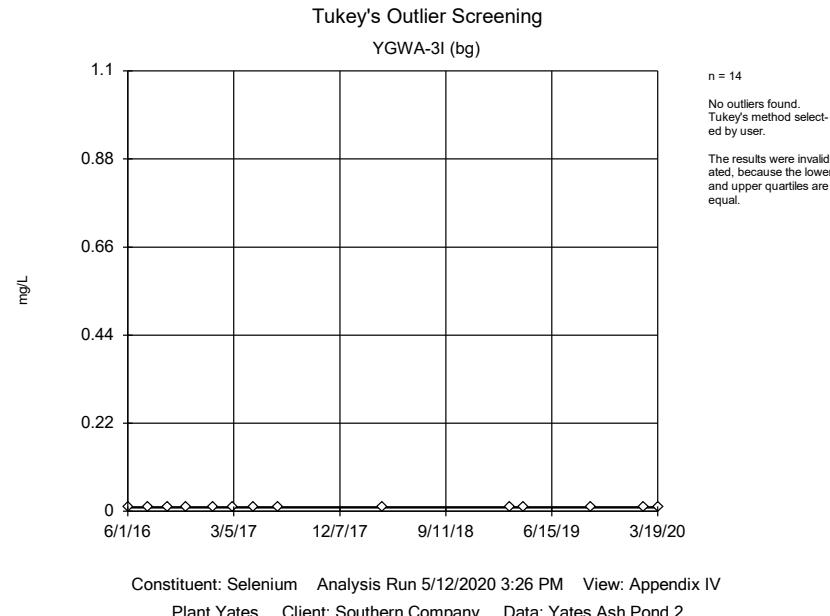


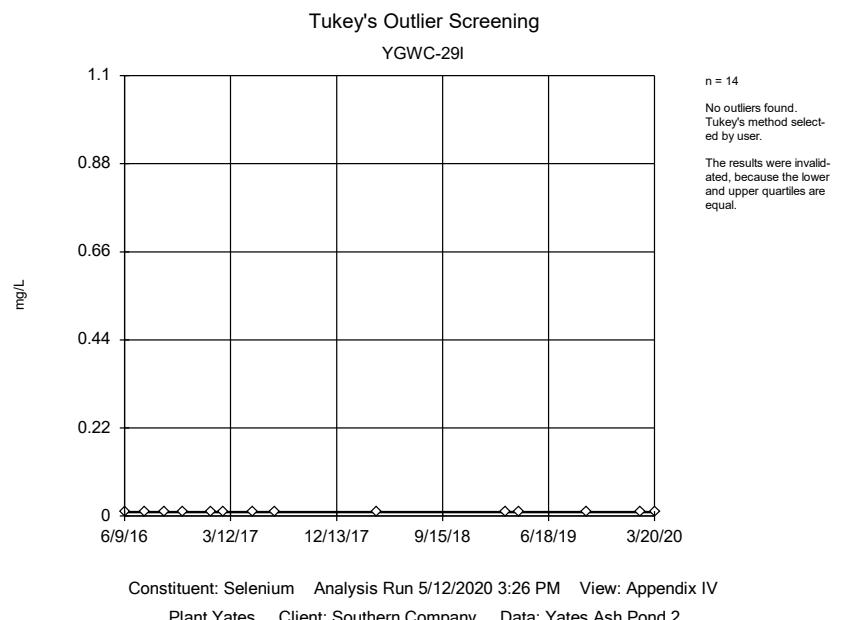
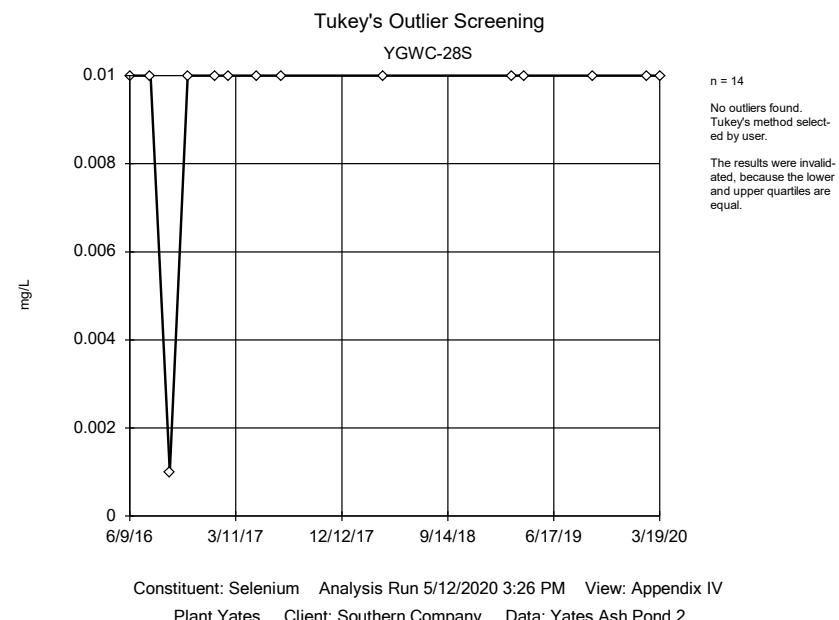
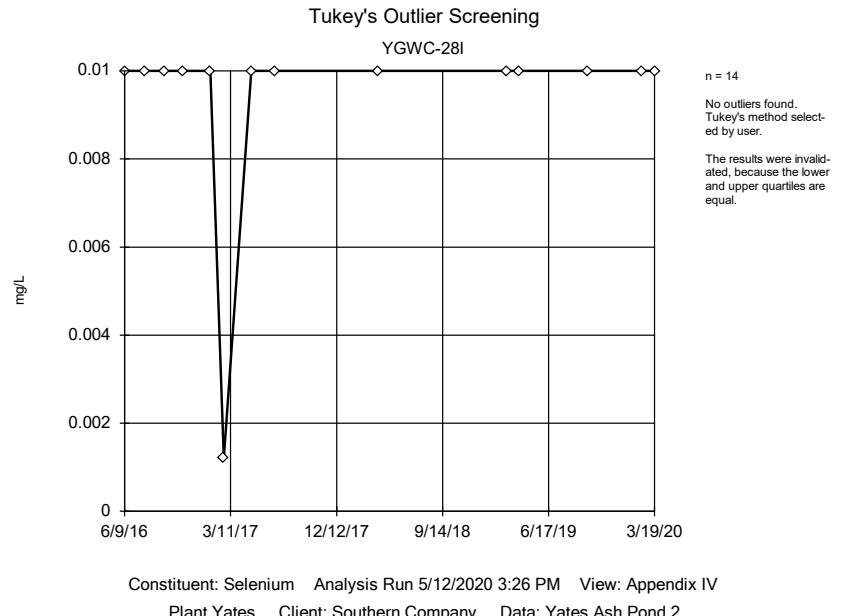
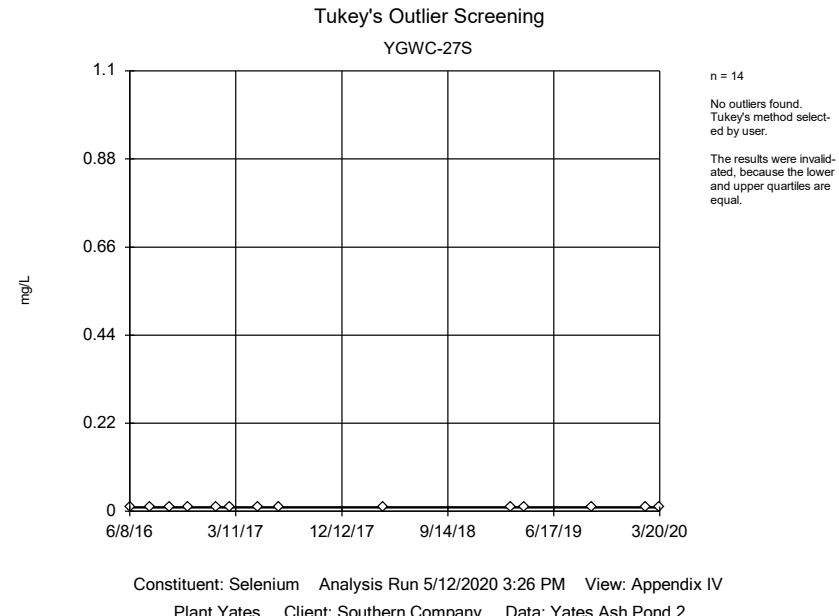


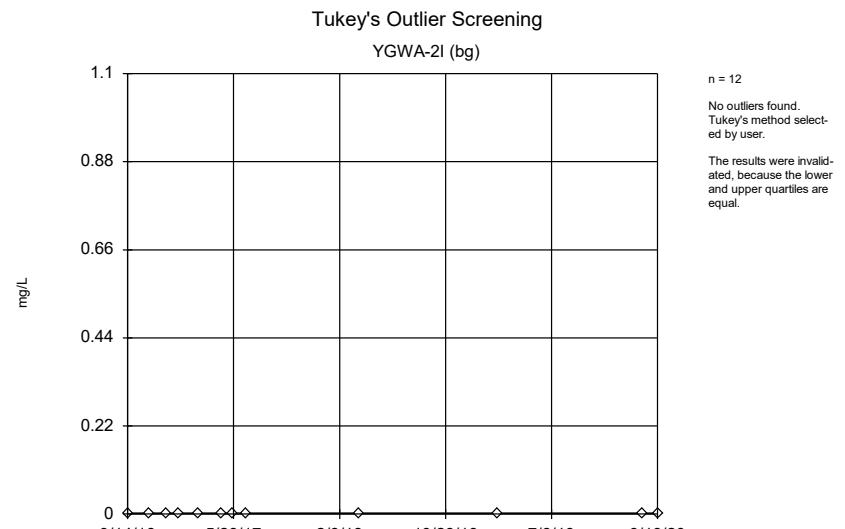
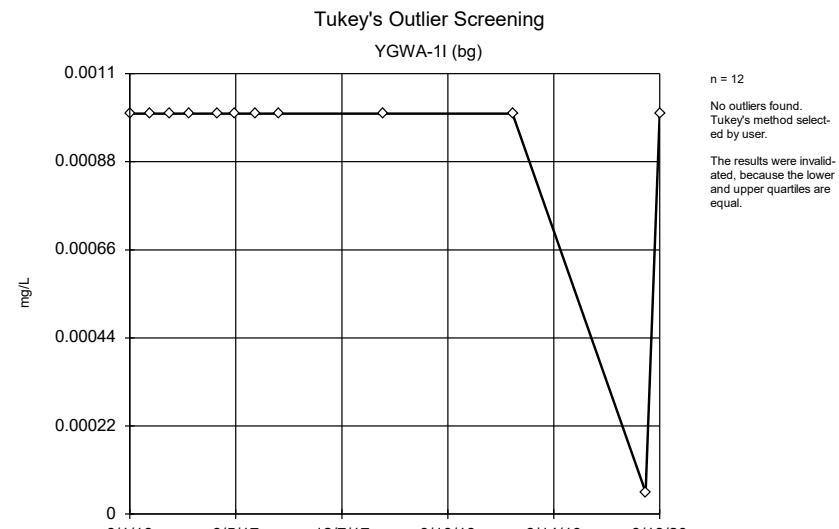
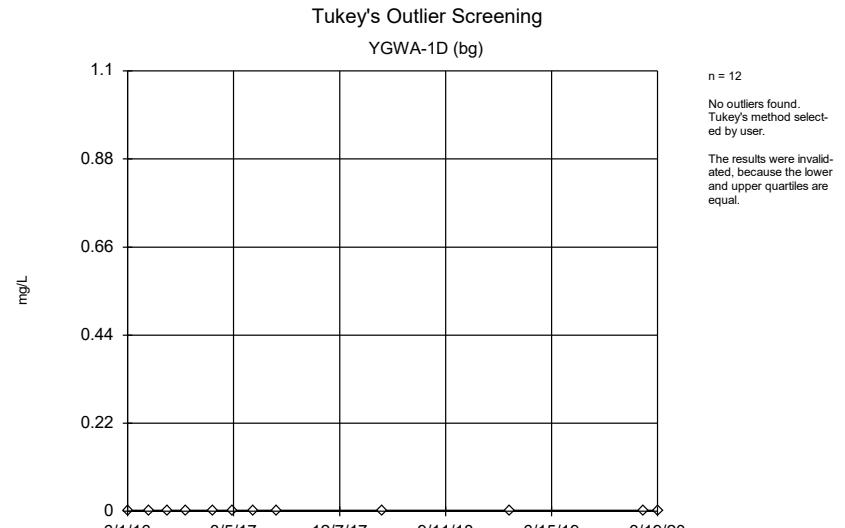
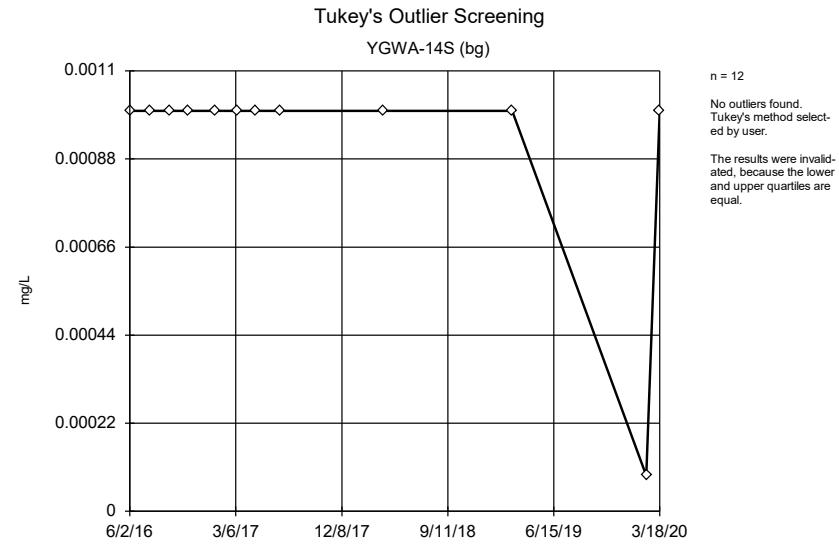


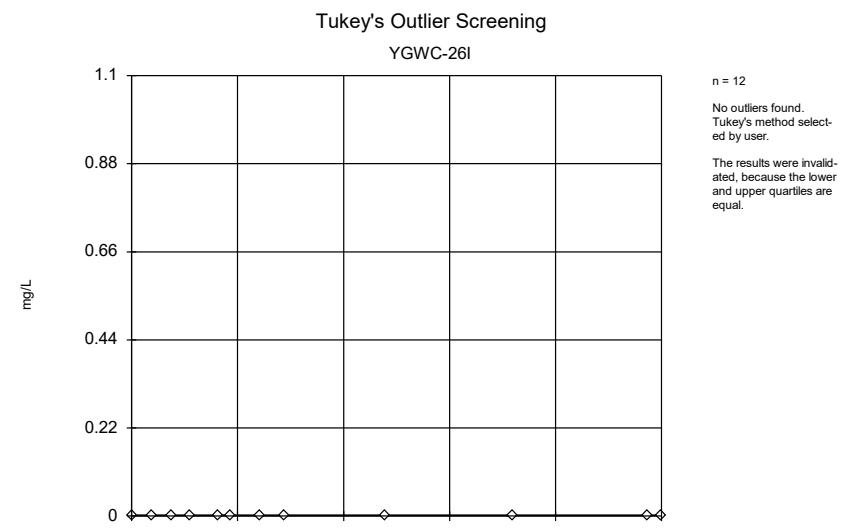
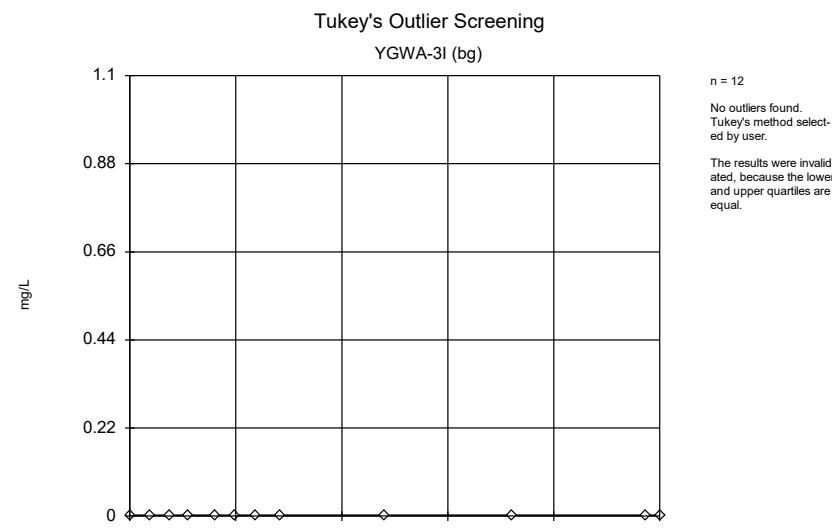
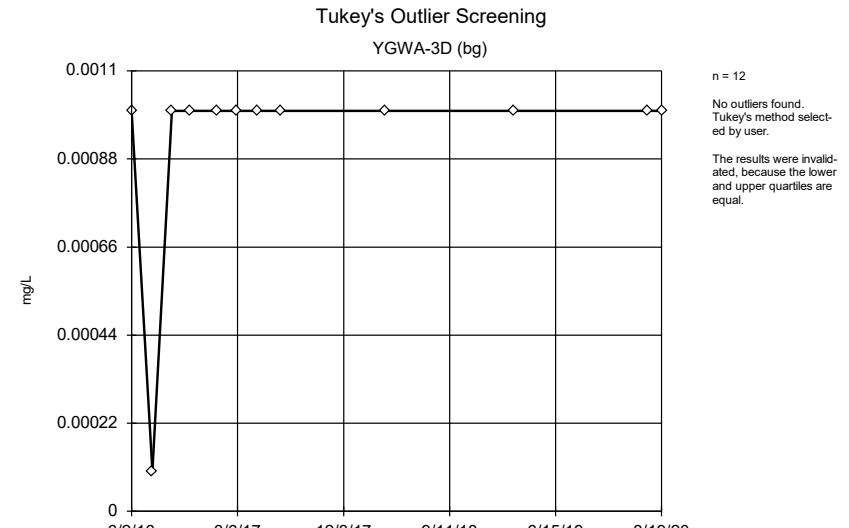
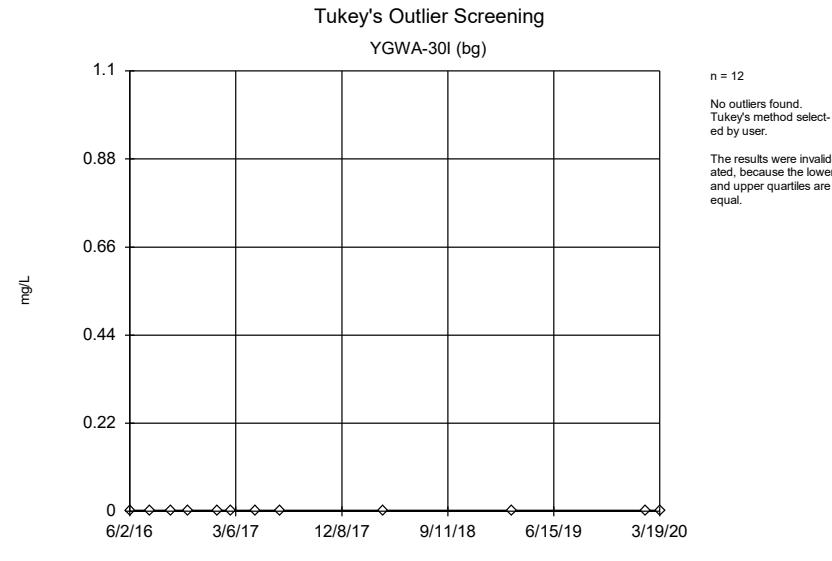


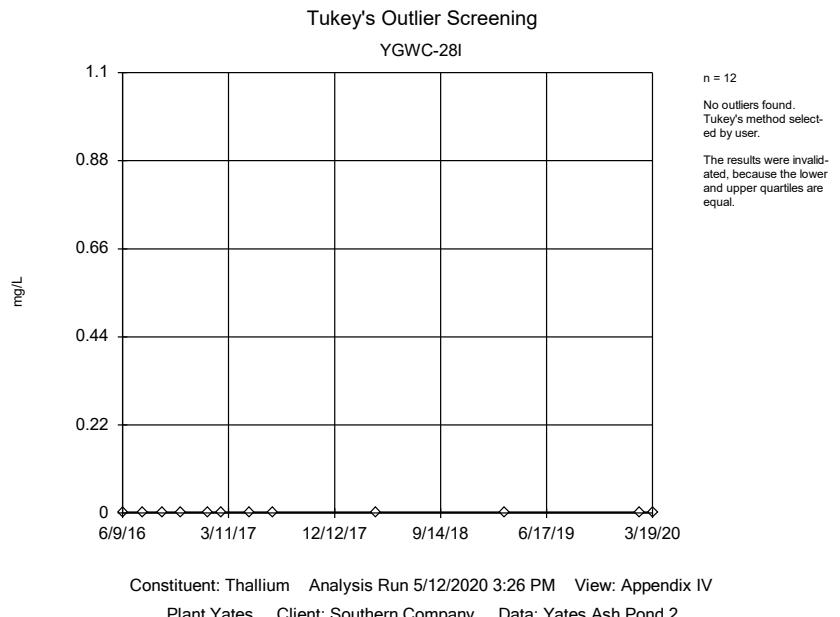
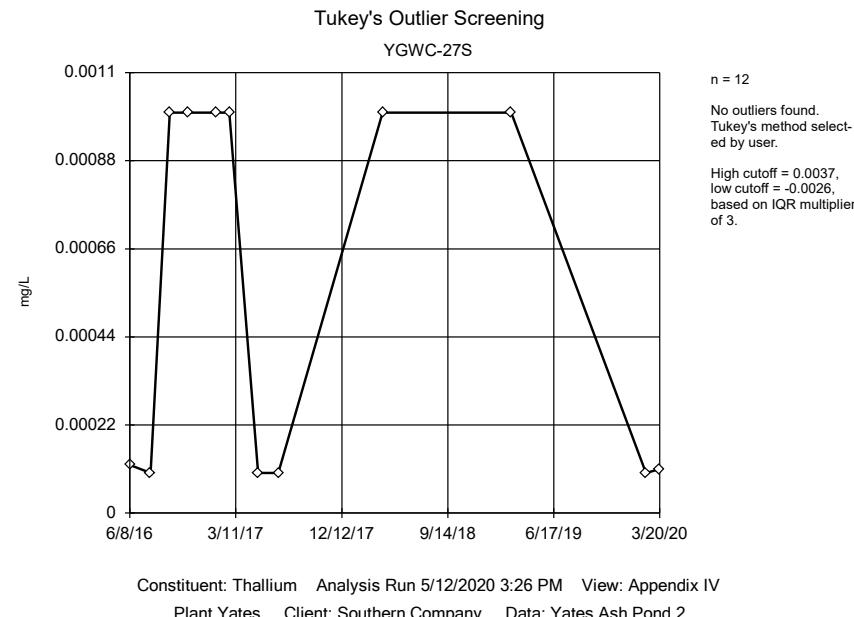
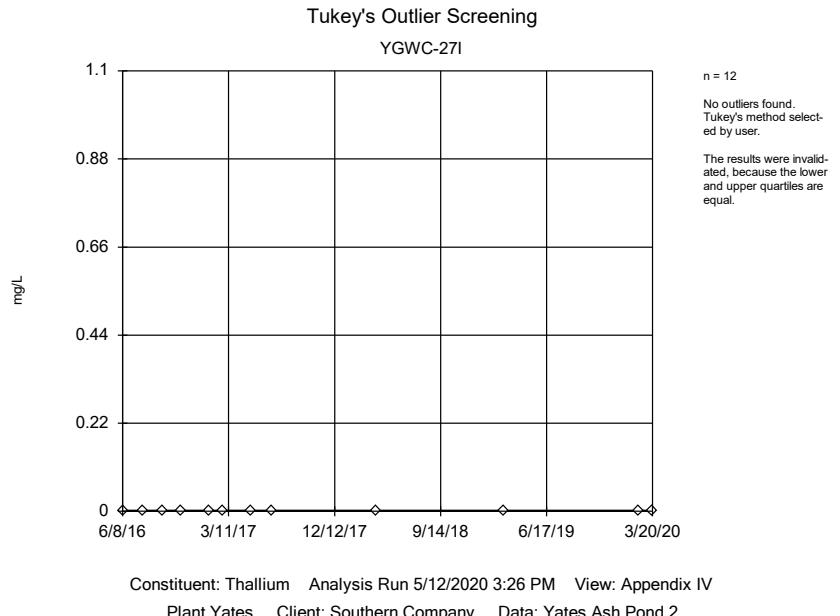
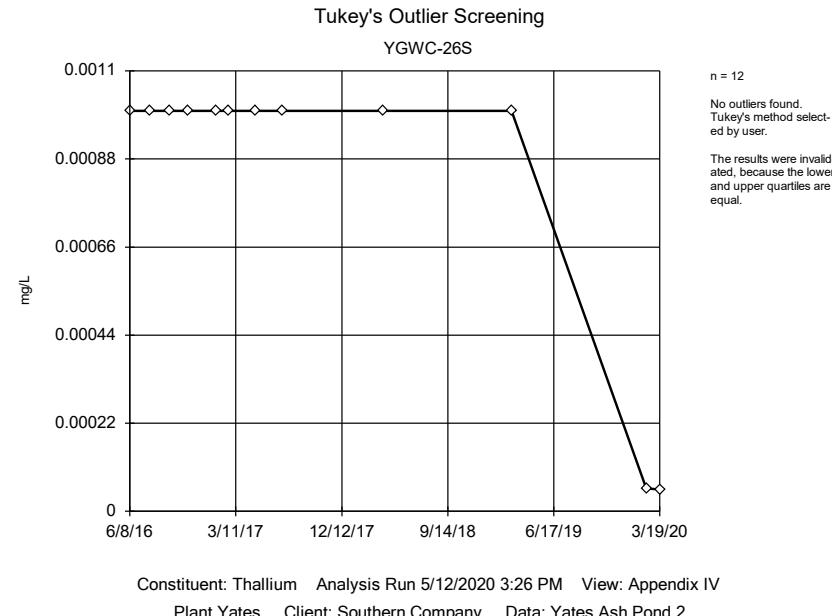


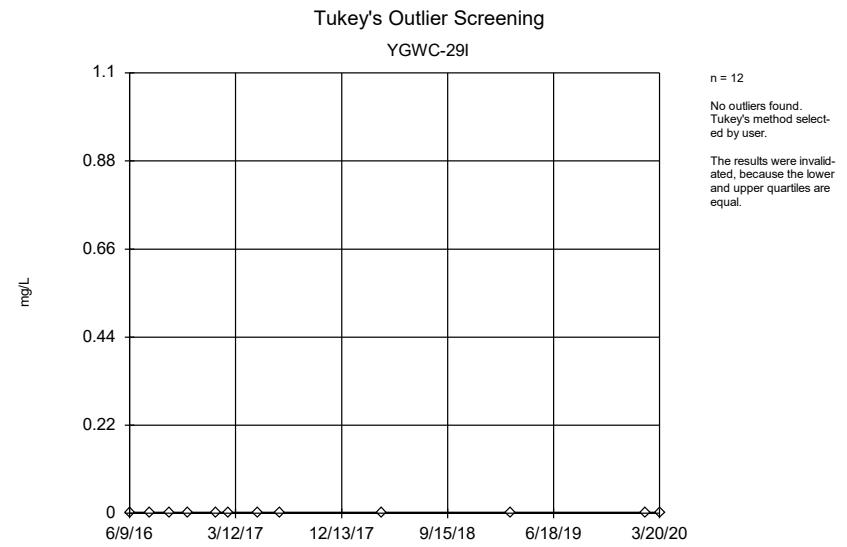
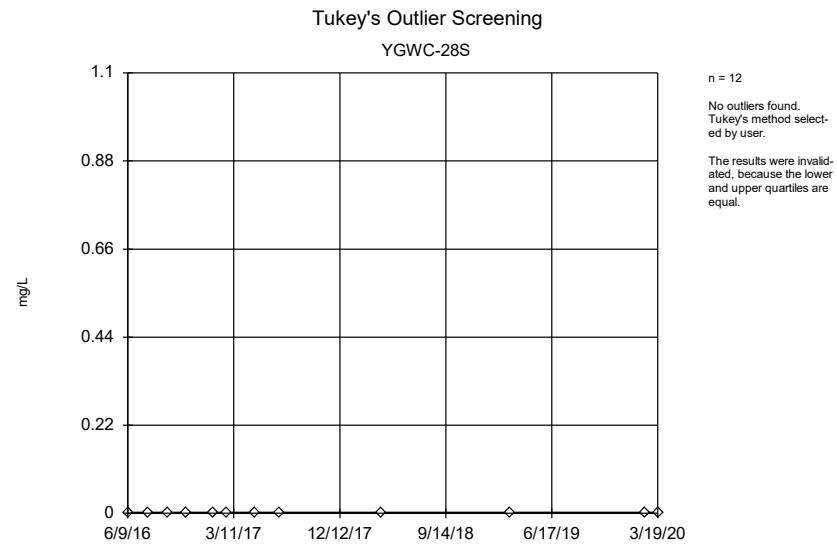












**FIGURE D.**

## Upgradient Wells Appendix III Trend Tests - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:38 PM

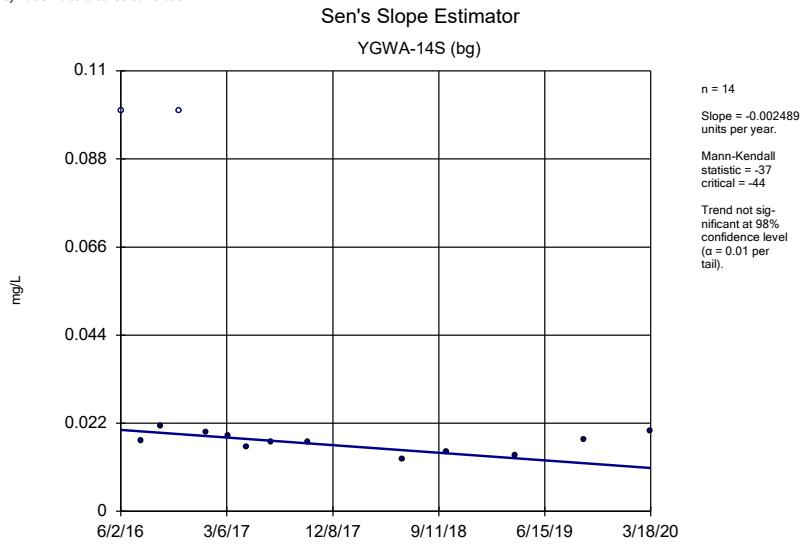
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	YGWA-14S (bg)	-0.05271	-60	-44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-1D (bg)	1.11	48	44	Yes	14	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-3D (bg)	-0.02531	-61	-58	Yes	17	5.882	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-1D (bg)	-0.1114	-61	-58	Yes	17	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-1D (bg)	1.261	51	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-3D (bg)	0.7245	46	44	Yes	14	0	n/a	n/a	0.02	NP

# Upgradient Wells Appendix III Trend Tests - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:38 PM

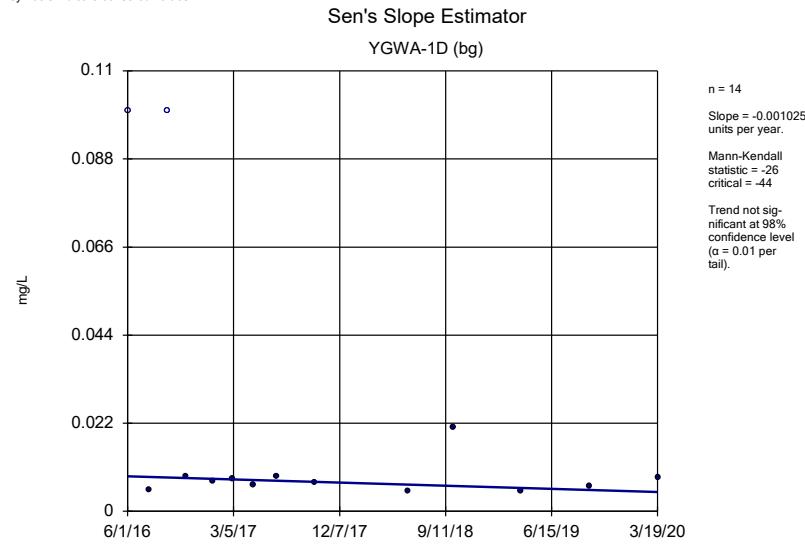
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDS</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWA-14S (bg)	-0.002489	-37	-44	No	14	14.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-1D (bg)	-0.001025	-26	-44	No	14	14.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-1I (bg)	0	-33	-44	No	14	64.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-2I (bg)	0	-26	-44	No	14	71.43	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-30I (bg)	0	-19	-44	No	14	85.71	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-3D (bg)	0	-13	-44	No	14	57.14	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-3I (bg)	0	-13	-44	No	14	92.86	n/a	n/a	0.02	NP
<b>Calcium (mg/L)</b>	<b>YGWA-14S (bg)</b>	<b>-0.05271</b>	<b>-60</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>1.11</b>	<b>48</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Calcium (mg/L)	YGWA-1I (bg)	-0.1025	-37	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-2I (bg)	0.9579	31	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-30I (bg)	-0.0134	-7	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-3D (bg)	1.219	40	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-3I (bg)	0.4381	18	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-14S (bg)	0	6	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-1D (bg)	0	-11	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-1I (bg)	0	-5	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-2I (bg)	-0.03701	-16	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-30I (bg)	0	4	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-3D (bg)	-0.07067	-33	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-3I (bg)	-0.04953	-37	-44	No	14	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-14S (bg)	0	14	58	No	17	94.12	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-1D (bg)	-0.004818	-21	-58	No	17	35.29	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-1I (bg)	0	17	58	No	17	88.24	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-2I (bg)	0	6	58	No	17	23.53	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-30I (bg)	0	14	58	No	17	94.12	n/a	n/a	0.02	NP
<b>Fluoride (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>-0.02531</b>	<b>-61</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>5.882</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Fluoride (mg/L)	YGWA-3I (bg)	-0.01022	-25	-58	No	17	29.41	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-14S (bg)	-0.01066	-20	-58	No	17	0	n/a	n/a	0.02	NP
<b>pH (S.U.)</b>	<b>YGWA-1D (bg)</b>	<b>-0.1114</b>	<b>-61</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
pH (S.U.)	YGWA-1I (bg)	-0.04218	-52	-58	No	17	0	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-2I (bg)	-0.03531	-21	-58	No	17	0	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-30I (bg)	0.005933	5	58	No	17	0	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-3D (bg)	-0.0353	-29	-58	No	17	0	n/a	n/a	0.02	NP
pH (S.U.)	YGWA-3I (bg)	-0.07822	-46	-58	No	17	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-14S (bg)	0.3425	40	44	No	14	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>1.261</b>	<b>51</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-1I (bg)	-0.1237	-7	-44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-2I (bg)	0	0	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-30I (bg)	-0.05321	-7	-44	No	14	14.29	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>0.7245</b>	<b>46</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-3I (bg)	0.6413	31	44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-14S (bg)	1.727	9	44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-1D (bg)	5.856	18	44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-1I (bg)	-0.6315	-3	-44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-2I (bg)	-3.471	-25	-44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-30I (bg)	4.021	23	44	No	14	14.29	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-3D (bg)	4.214	14	44	No	14	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	YGWA-3I (bg)	1.372	6	44	No	14	0	n/a	n/a	0.02	NP

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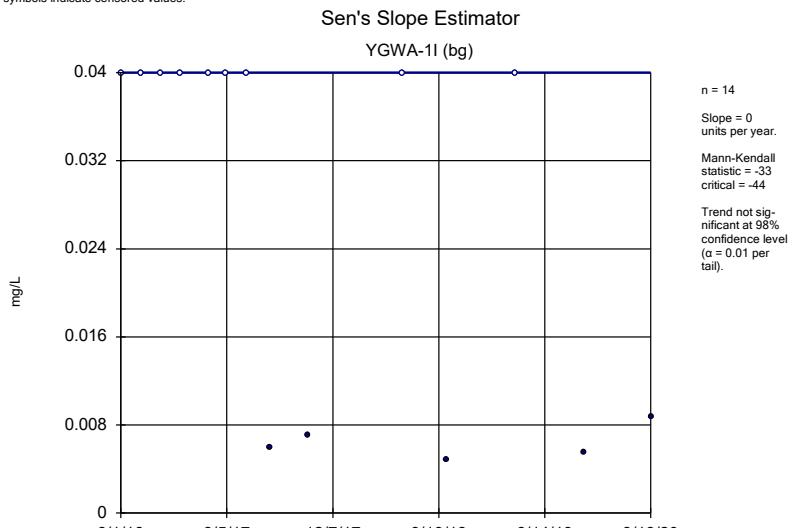
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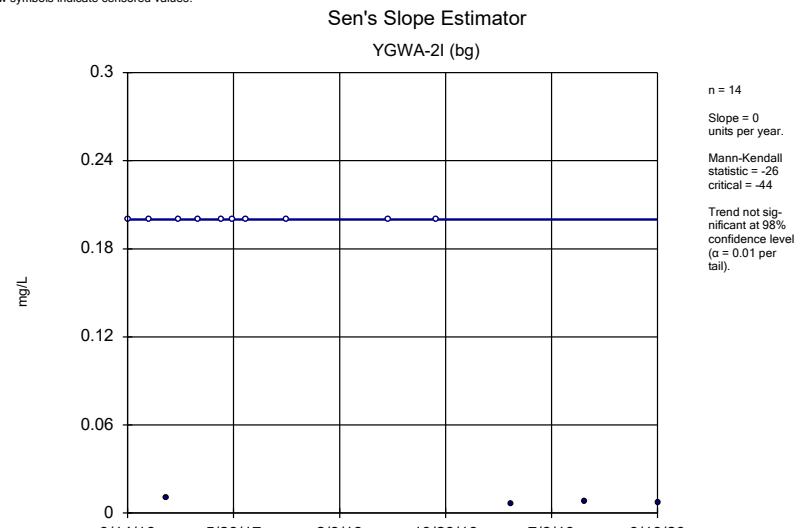
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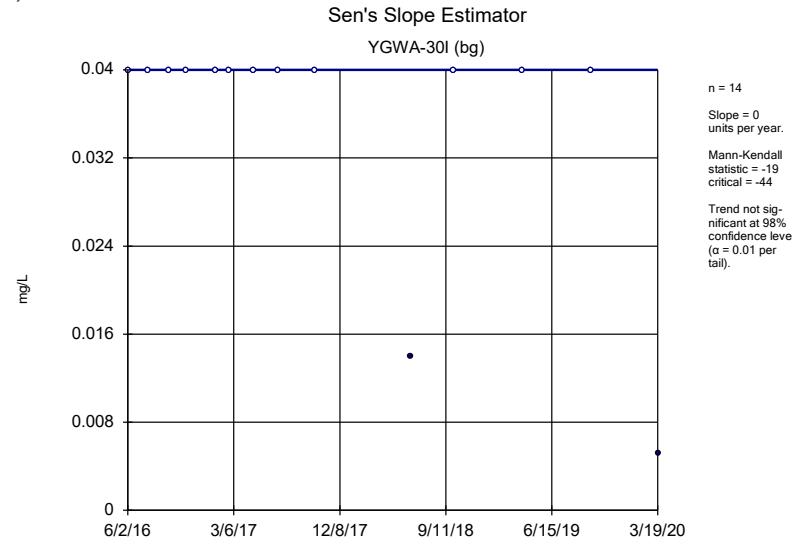
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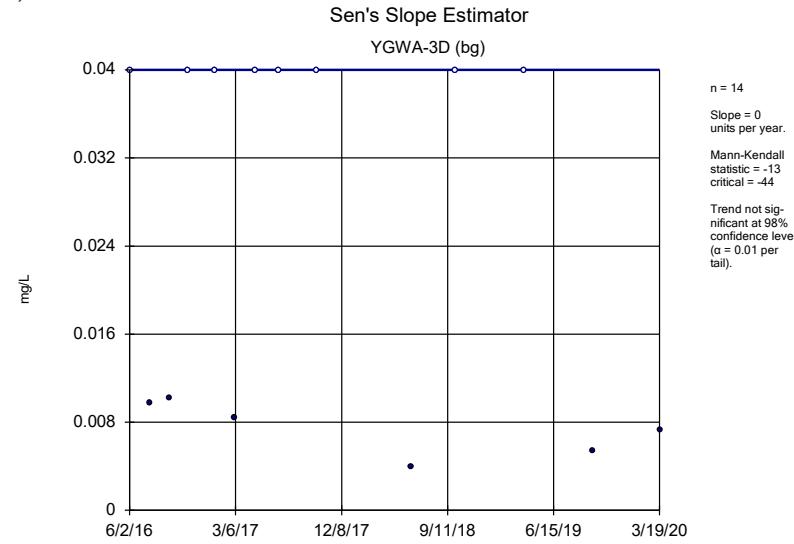
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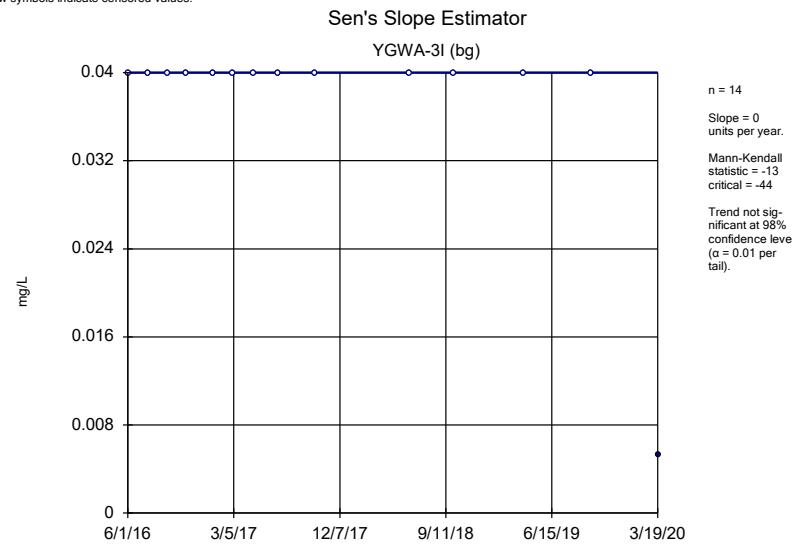
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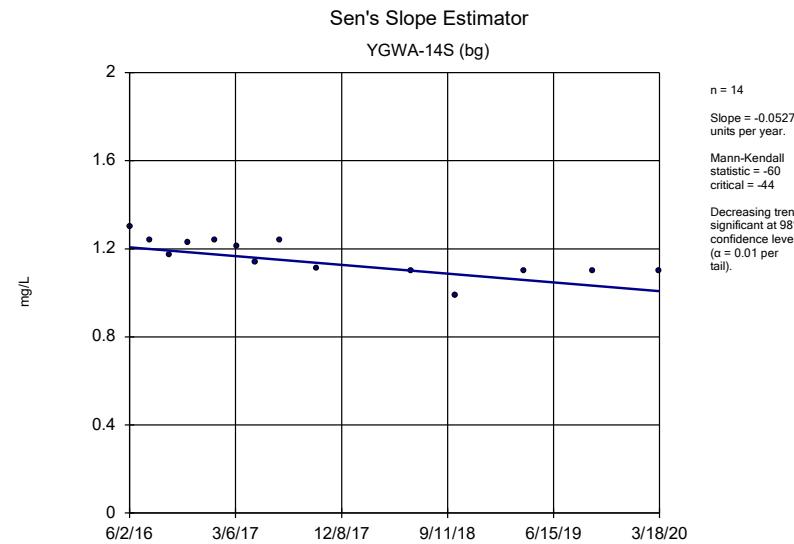
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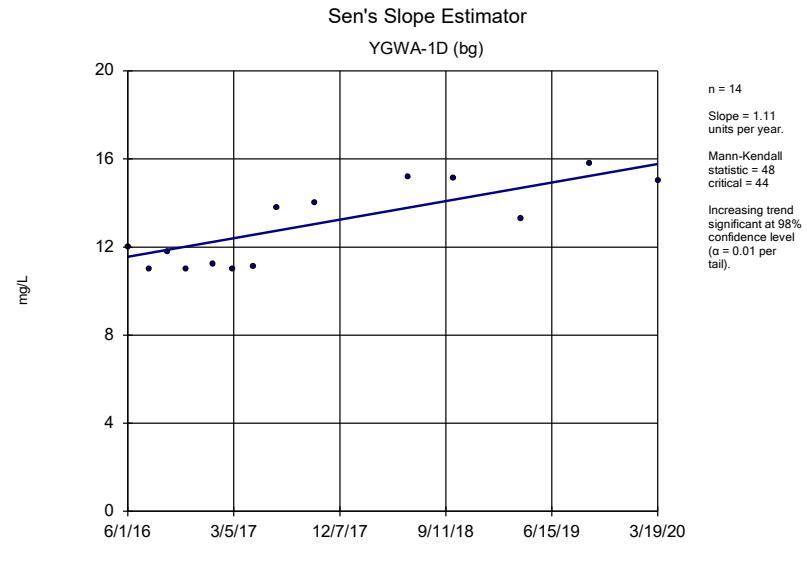


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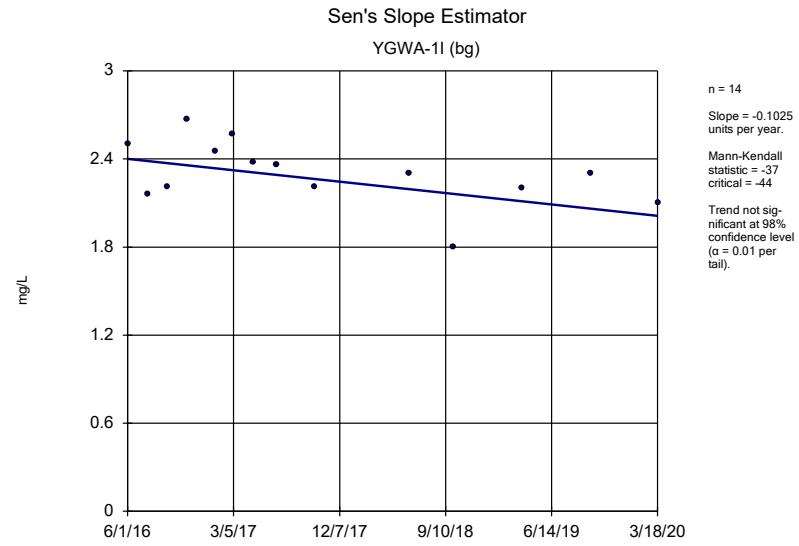
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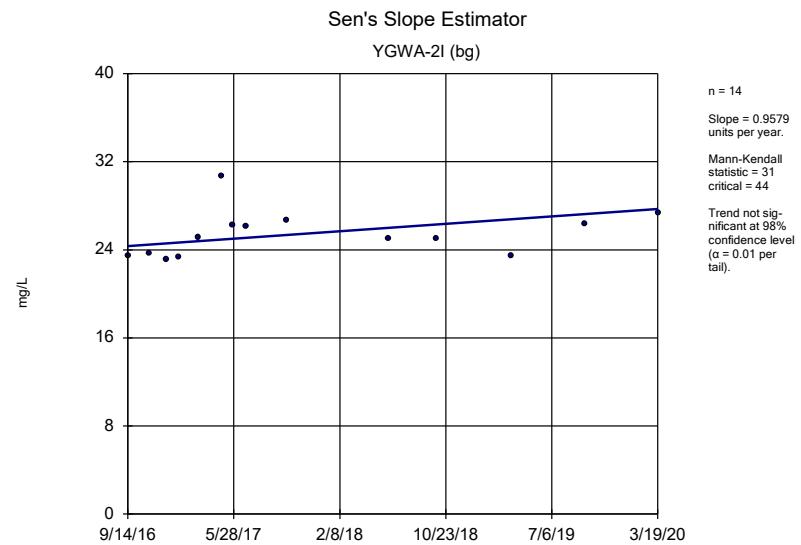
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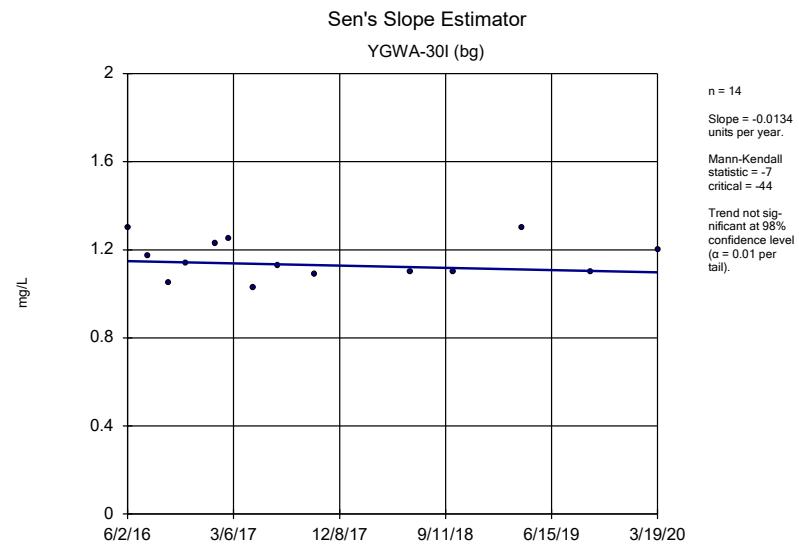
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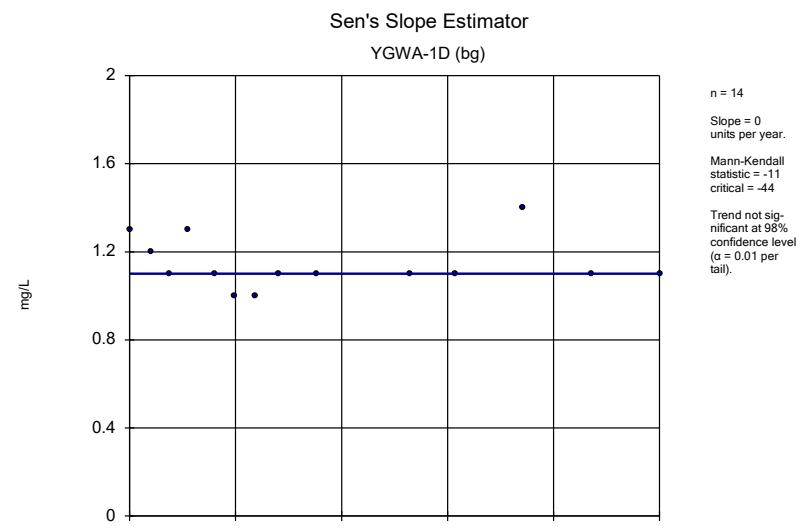
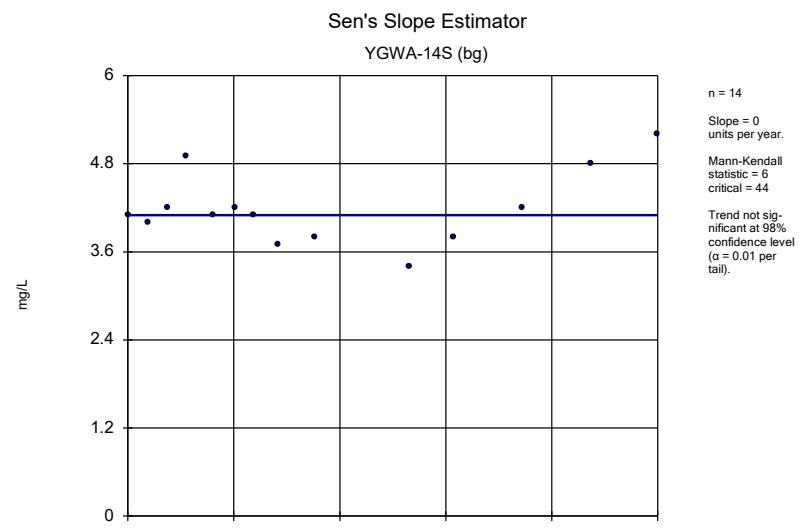
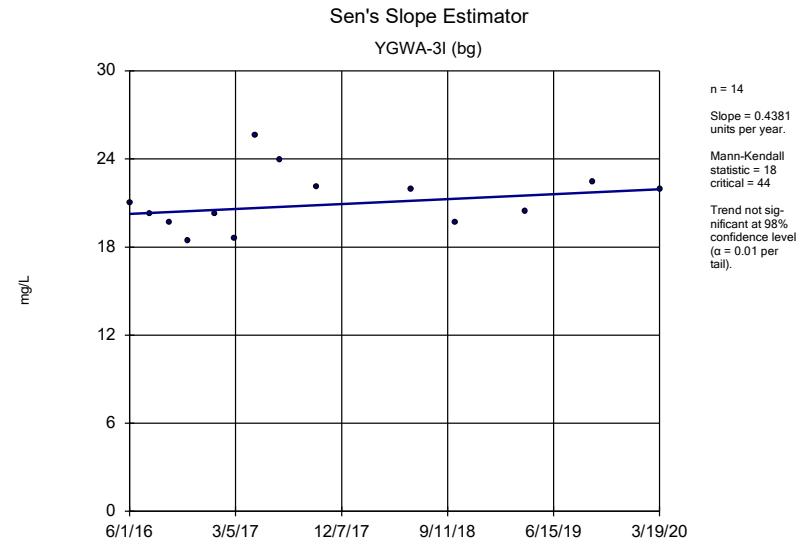
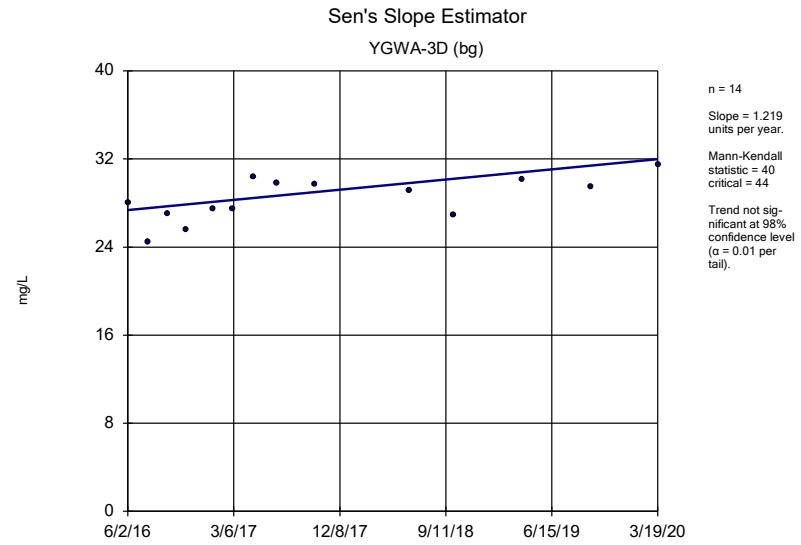
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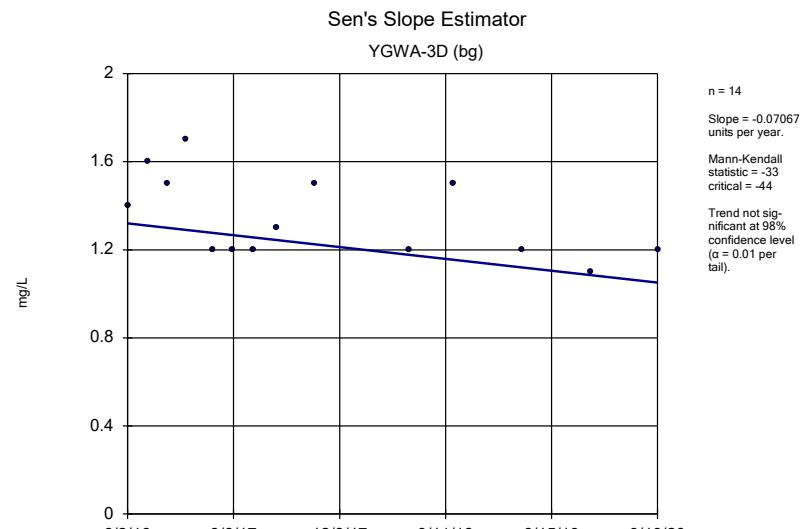
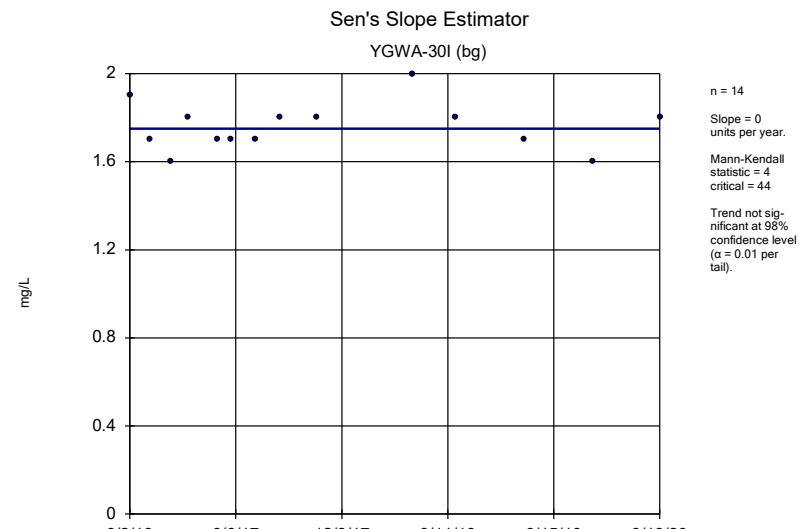
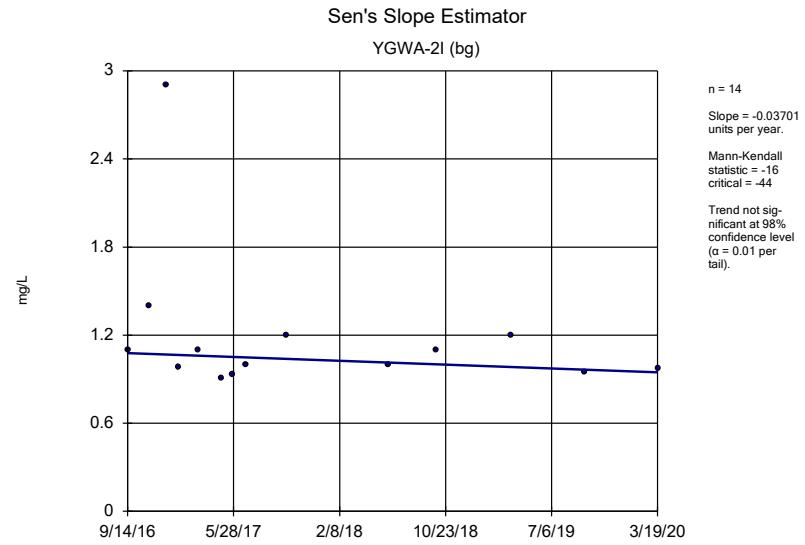
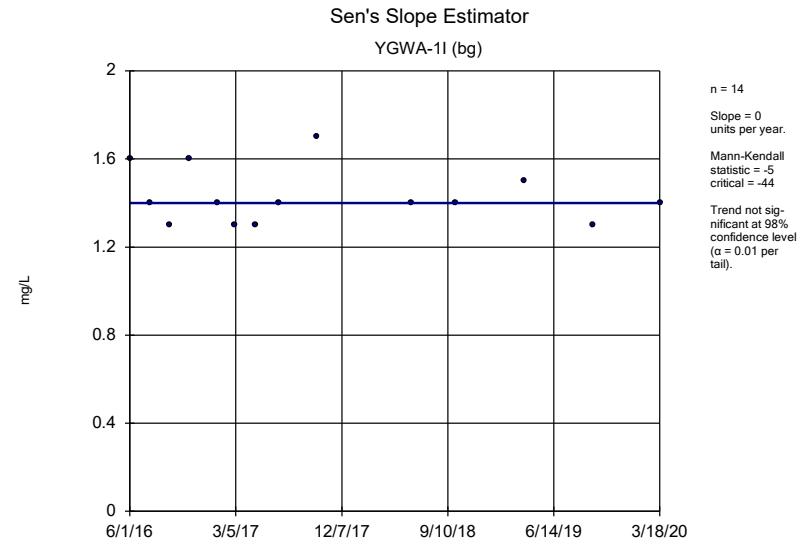


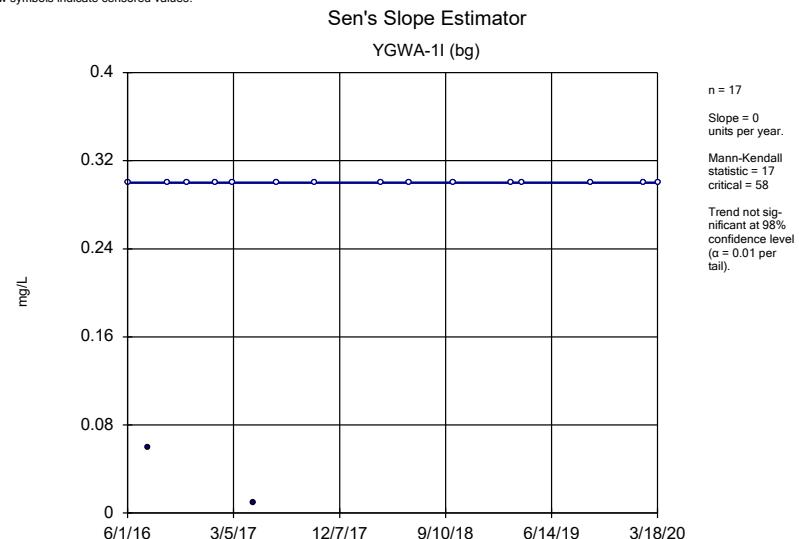
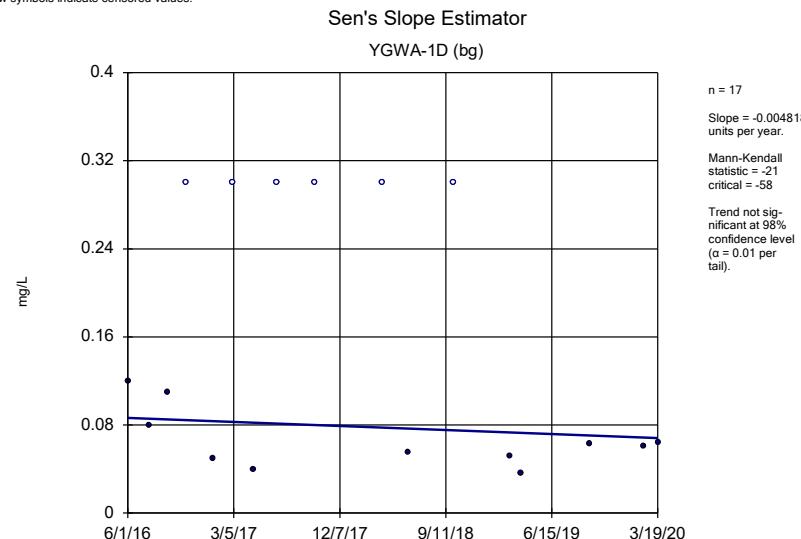
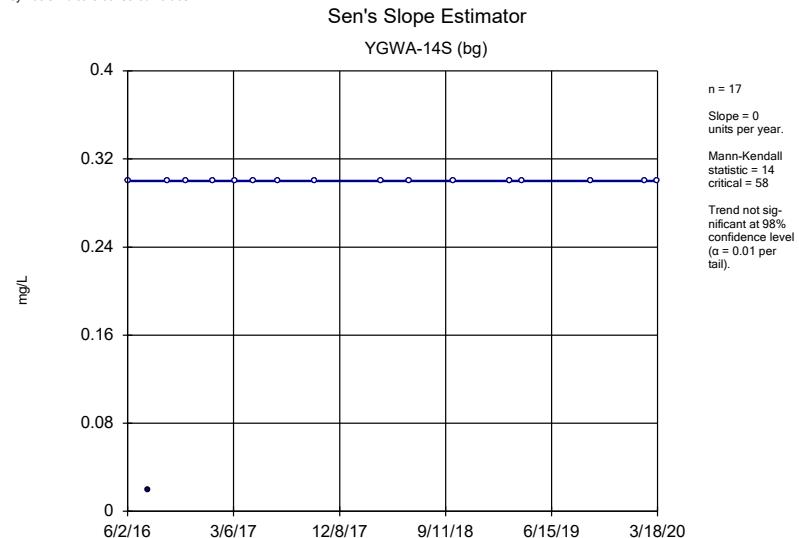
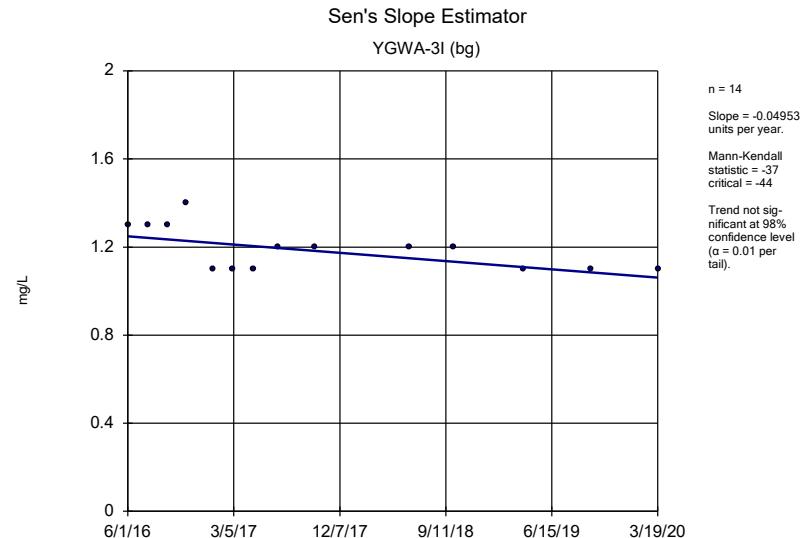
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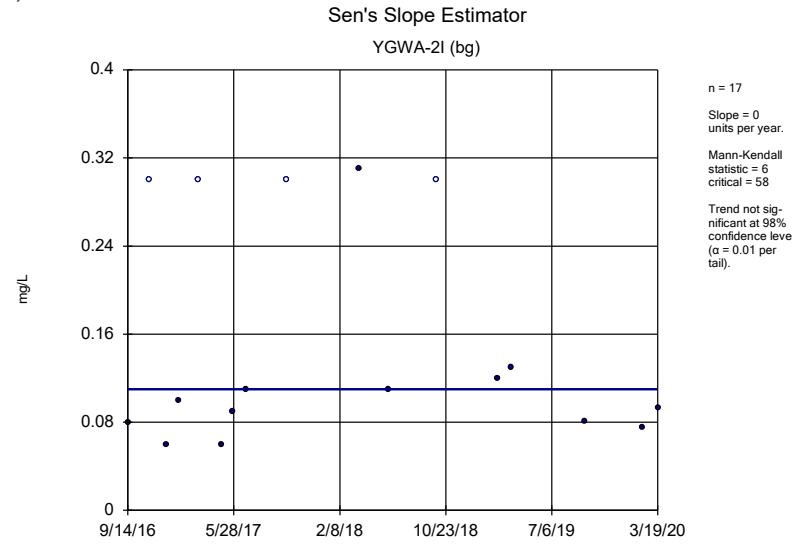
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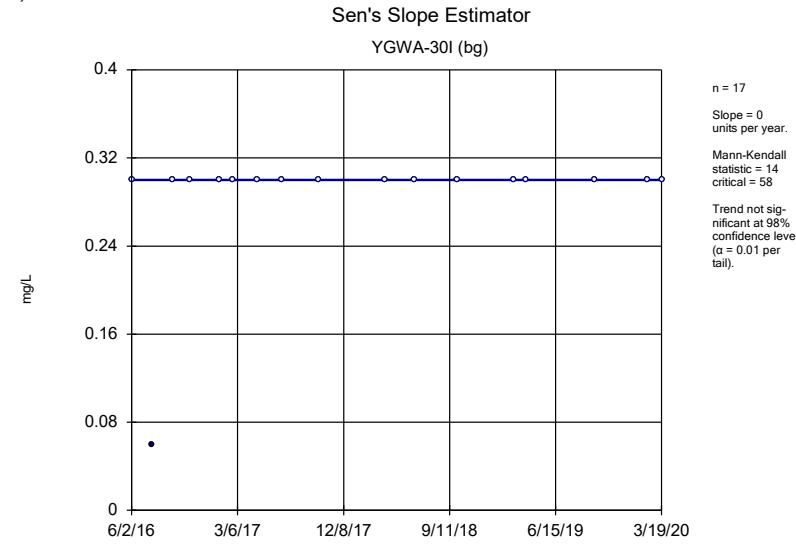




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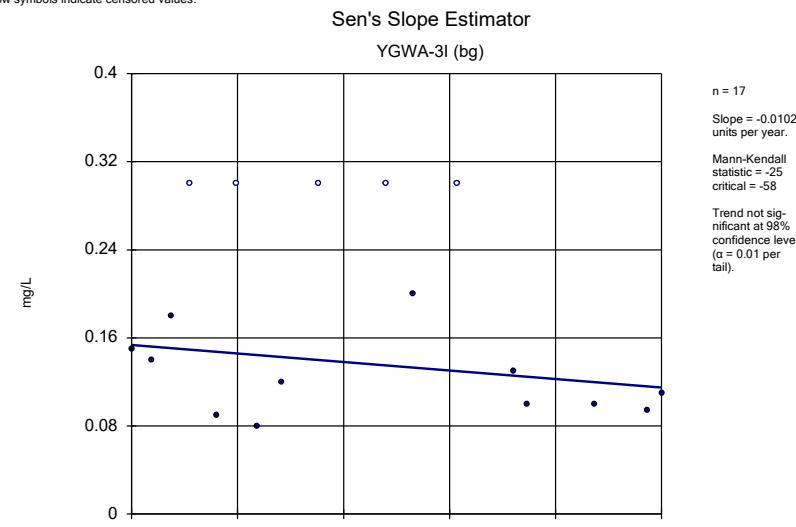
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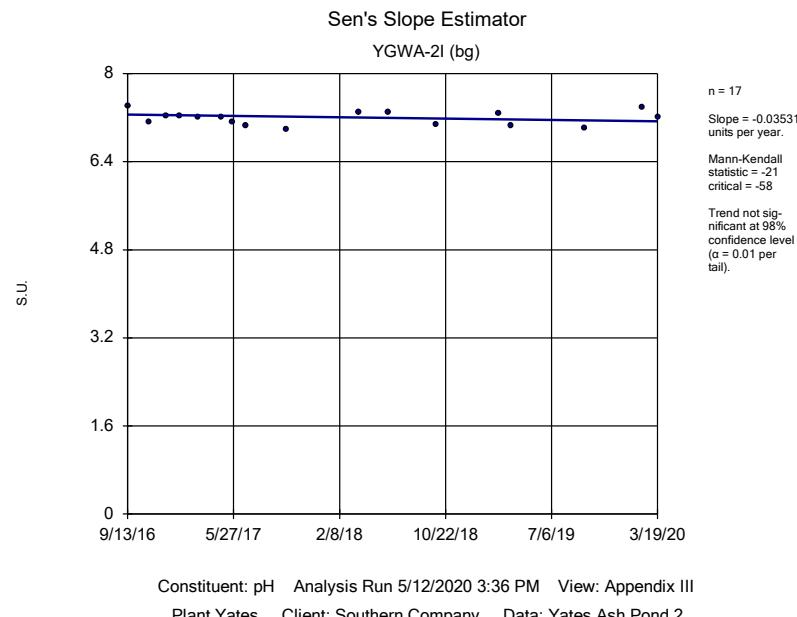
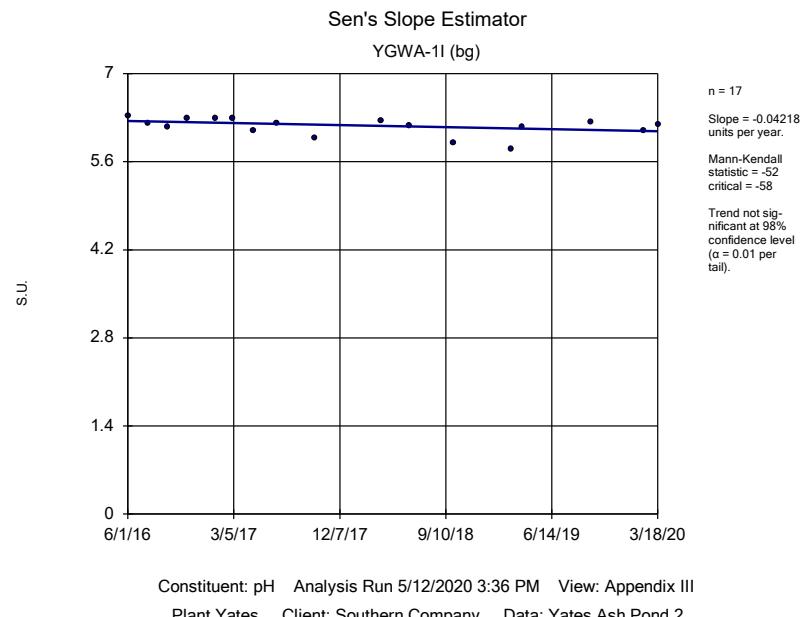
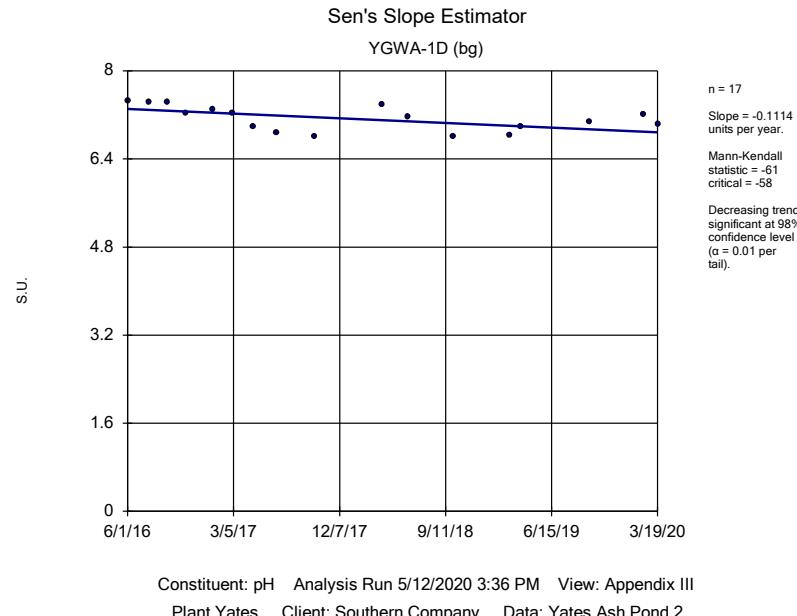
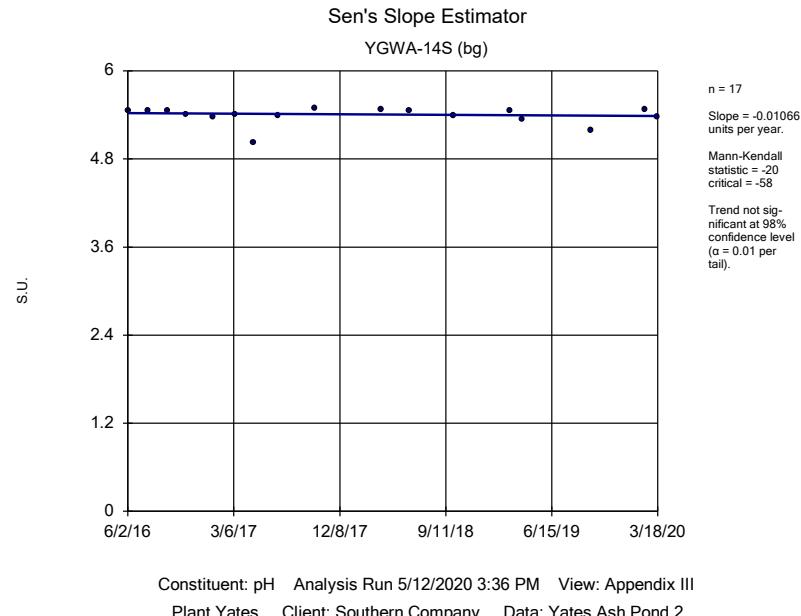


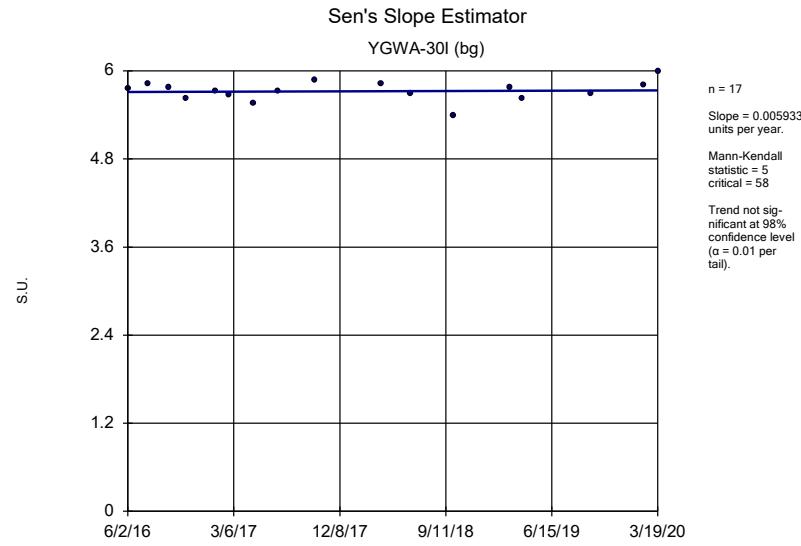
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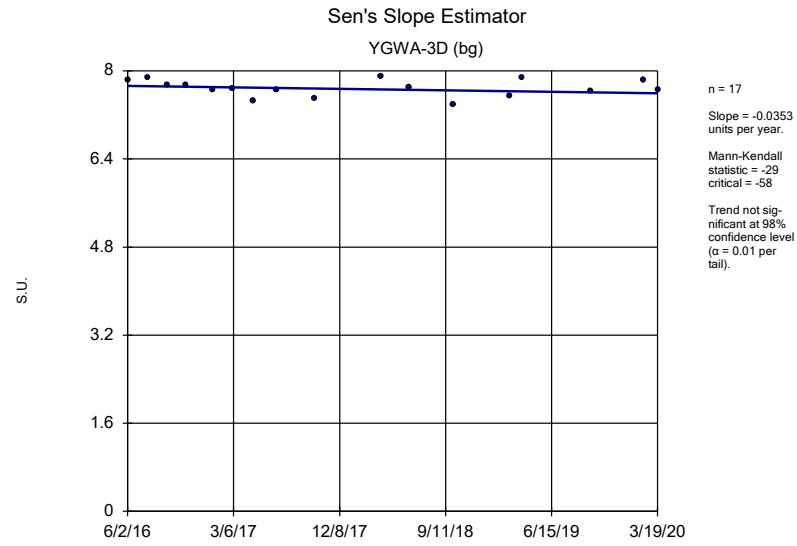
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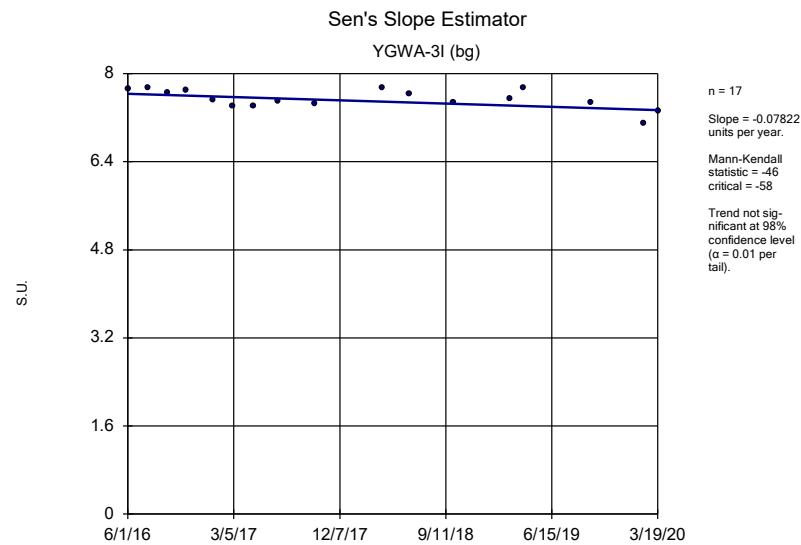




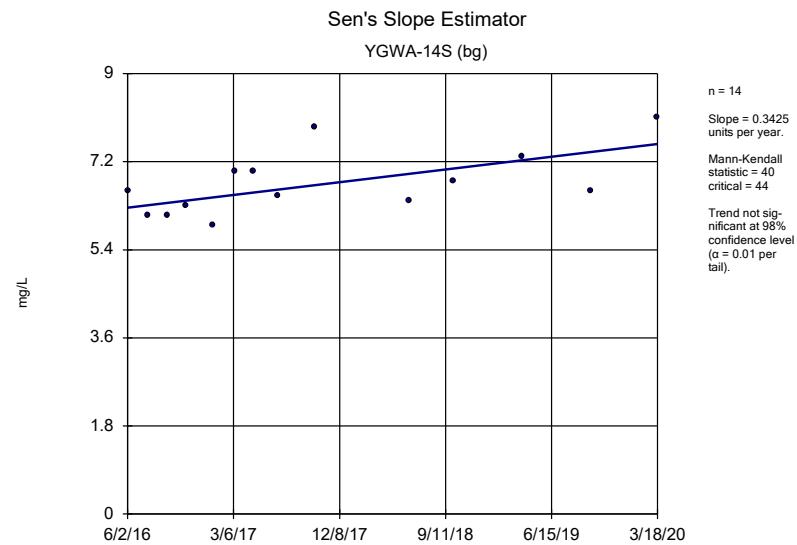
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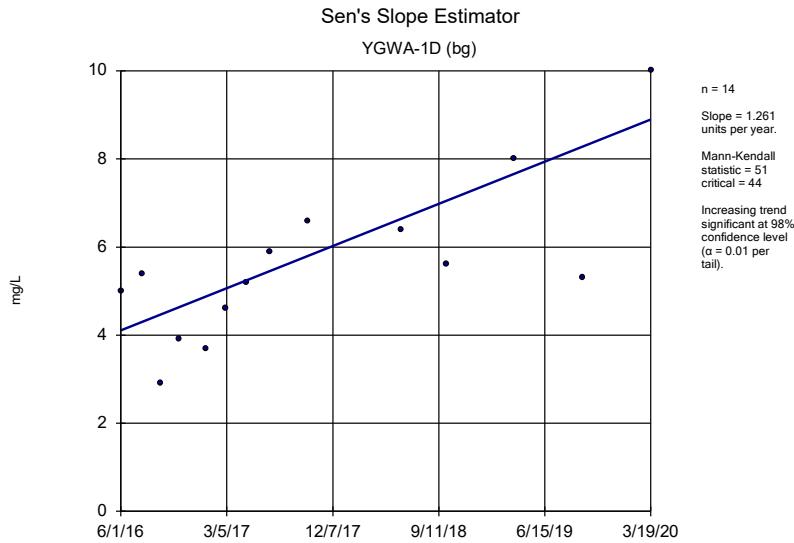
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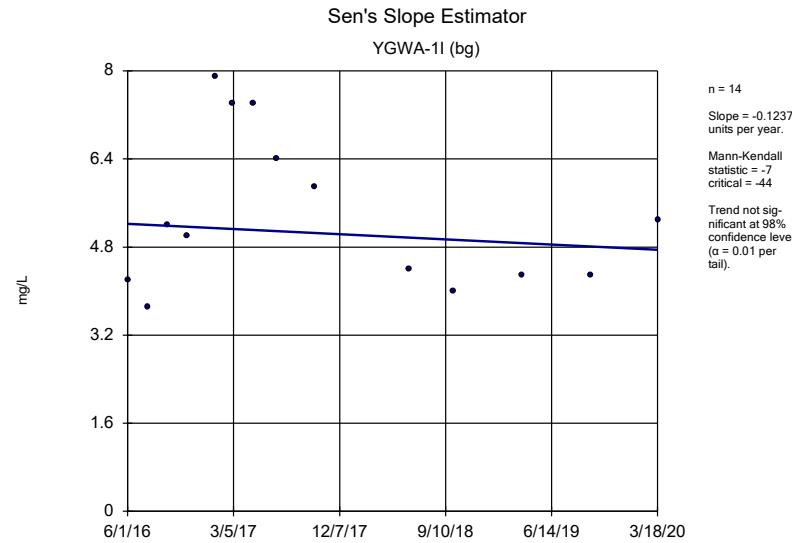
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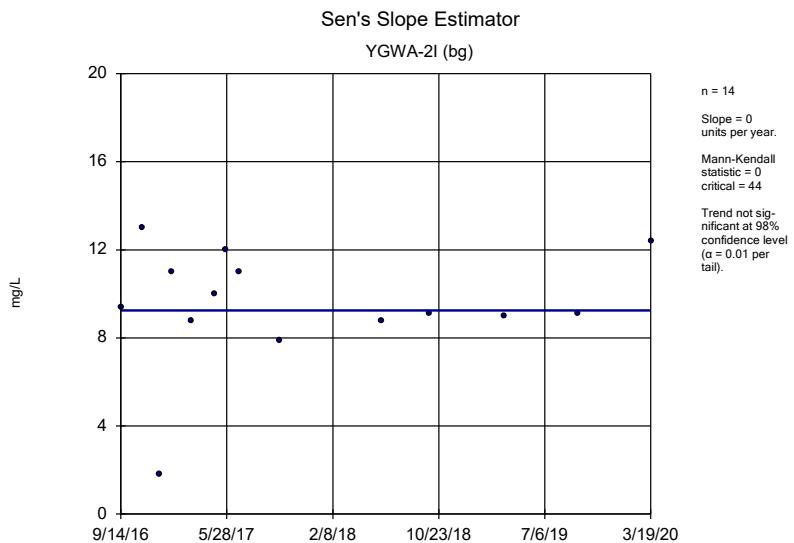
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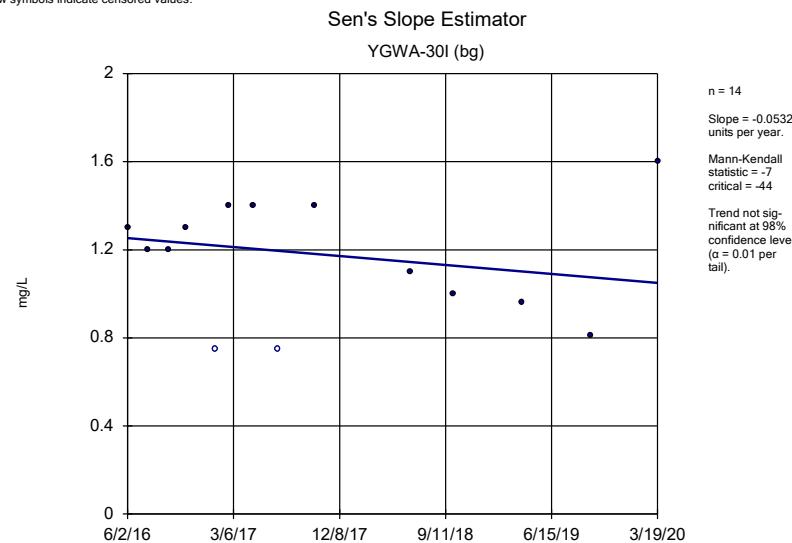
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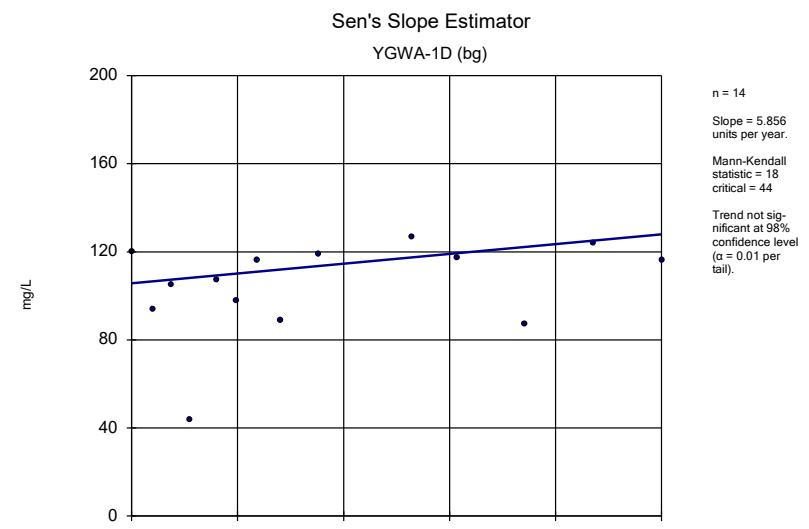
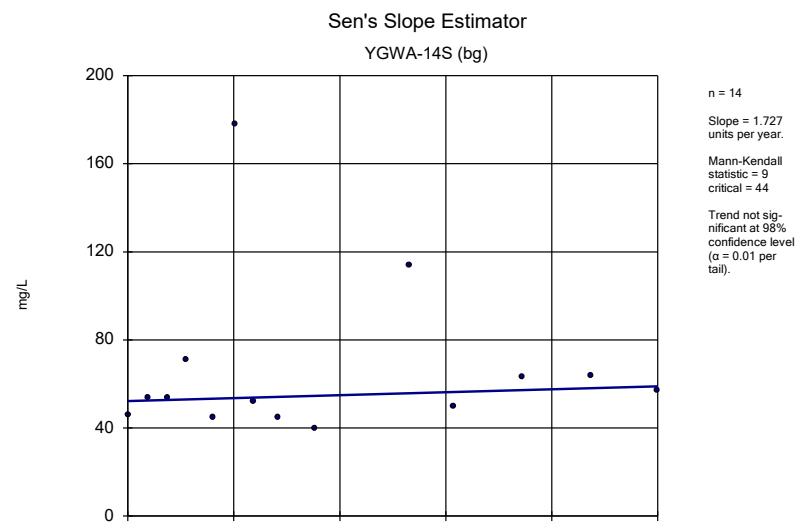
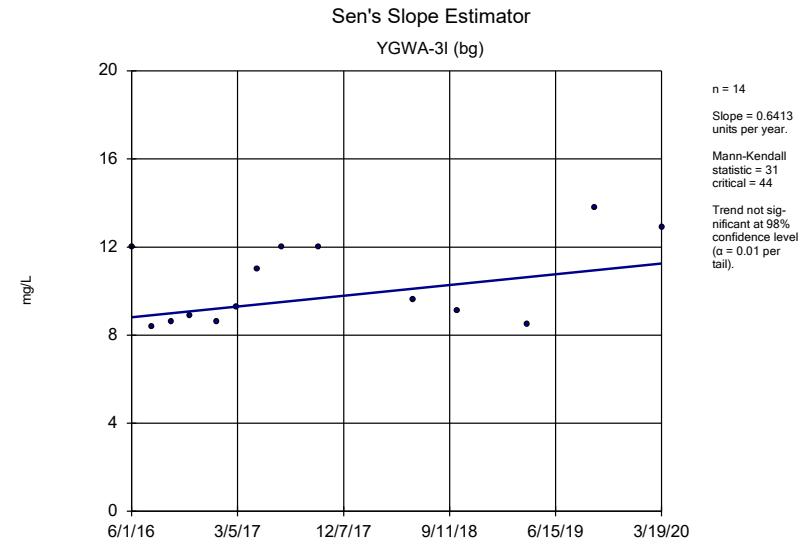
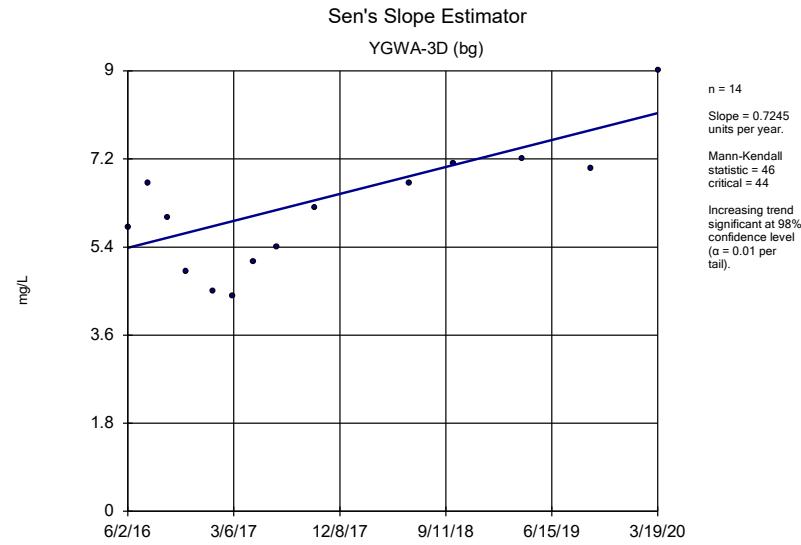
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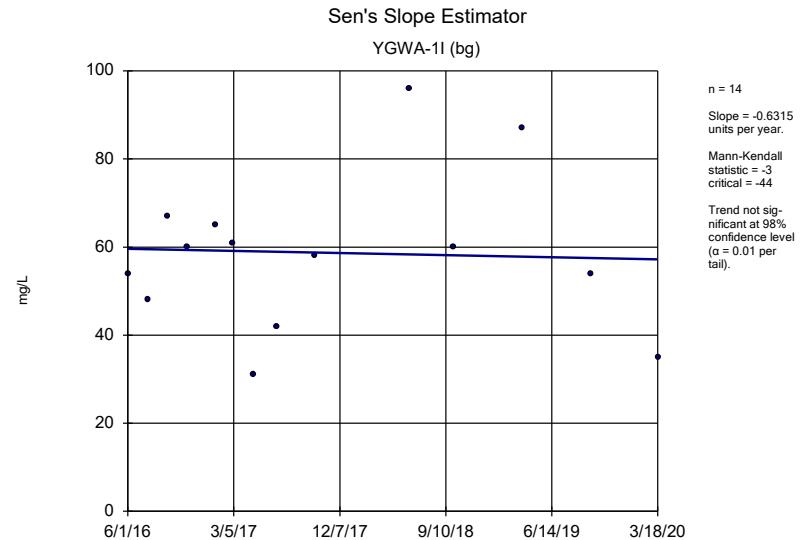


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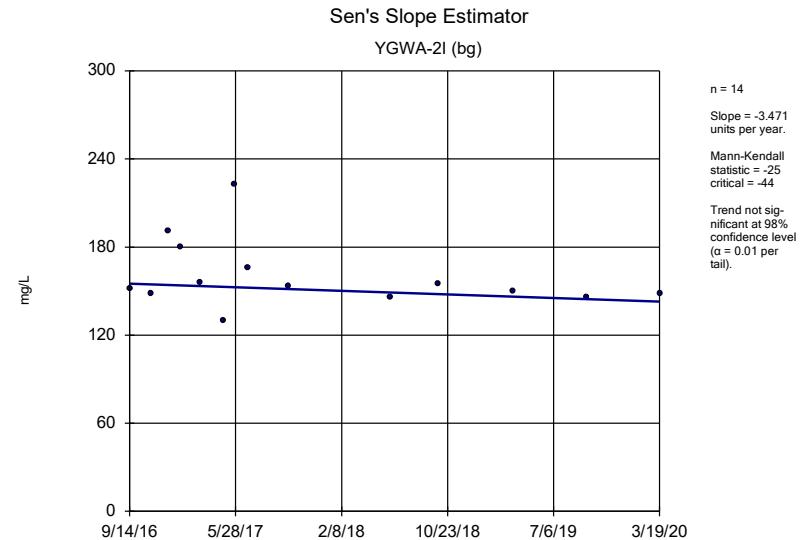


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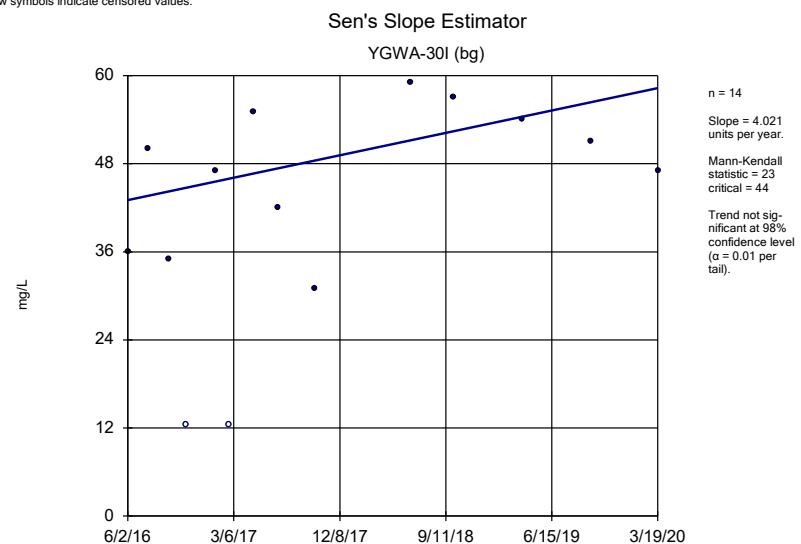




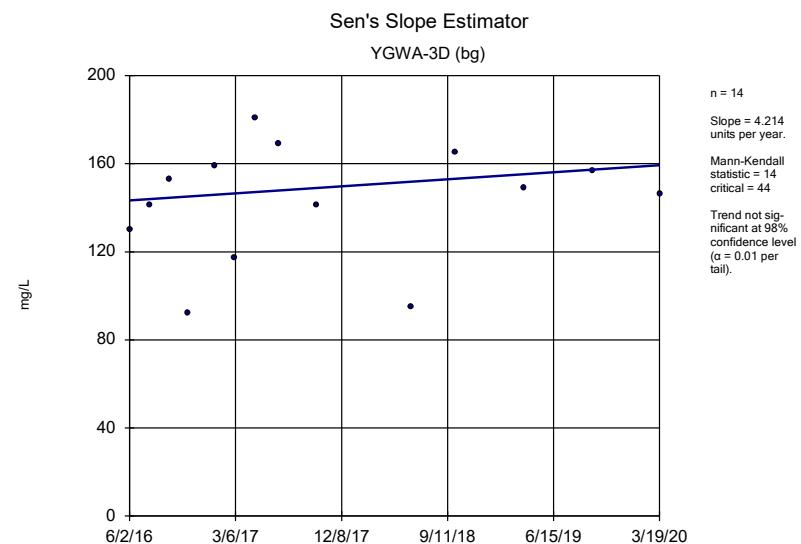
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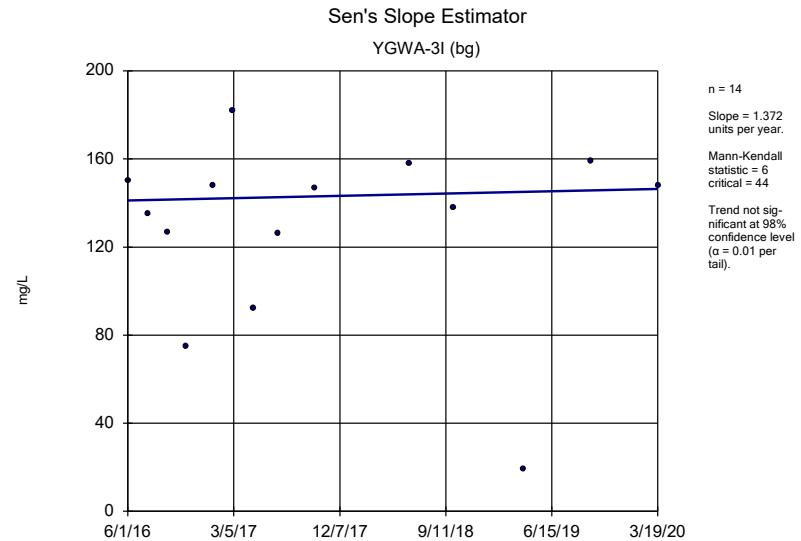
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Constituent: Total Dissolved Solids Analysis Run 5/12/2020 3:36 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Total Dissolved Solids Analysis Run 5/12/2020 3:36 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Total Dissolved Solids Analysis Run 5/12/2020 3:36 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## Appendix IV Trend Tests - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:49 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>
Barium (mg/L)	YGWA-3D (bg)	-0.0008036	-74	-53	Yes	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-26S	-0.00108	-80	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-27I	-0.003166	-59	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-27S	-0.003589	-78	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-28S	-0.005296	-59	-53	Yes	16	0	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-29I	-0.00565	-93	-53	Yes	16	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-30I (bg)	-0.003763	-111	-53	Yes	16	0	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-27I	0.003813	63	53	Yes	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.206	64	53	Yes	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-3D (bg)	-0.02531	-61	-58	Yes	17	5.882	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-30I (bg)	-0.007672	-54	-53	Yes	16	56.25	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-29I	-0.0005137	-61	-53	Yes	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-1D (bg)	-0.0008772	-70	-53	Yes	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-1I (bg)	-0.001096	-76	-53	Yes	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-3D (bg)	0.0008155	70	53	Yes	16	0	n/a	n/a	0.02	NP

## Appendix IV Trend Tests - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:49 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>
Antimony (mg/L)	YGWA-14S (bg)	0	9	35	No	12	91.67	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-1D (bg)	0	7	35	No	12	50	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-1I (bg)	0	-13	-35	No	12	83.33	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-2I (bg)	-0.00002578	-21	-35	No	12	58.33	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-30I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-3D (bg)	0	2	35	No	12	66.67	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWA-3I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-26I	0	-19	-35	No	12	83.33	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-26S	0	-19	-35	No	12	83.33	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-27I	0	-11	-35	No	12	91.67	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-27S	0	-11	-35	No	12	91.67	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-28I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-28S	0	0	35	No	12	100	n/a	n/a	0.02	NP
Antimony (mg/L)	YGWC-29I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-14S (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-1D (bg)	-0.0002127	-51	-53	No	16	12.5	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-1I (bg)	0	-13	-53	No	16	93.75	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-2I (bg)	-0.0003521	-40	-53	No	16	12.5	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-30I (bg)	0	-13	-53	No	16	93.75	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-3D (bg)	0	-11	-53	No	16	87.5	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWA-3I (bg)	0	-4	-53	No	16	81.25	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-26I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-26S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-27I	-0.00007048	-39	-53	No	16	50	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-27S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-28I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-28S	-0.00009908	-51	-53	No	16	50	n/a	n/a	0.02	NP
Arsenic (mg/L)	YGWC-29I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-14S (bg)	-0.0004179	-47	-53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-1D (bg)	0.0001166	12	53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-1I (bg)	-0.0003284	-20	-53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-2I (bg)	-0.0003414	-44	-53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWA-30I (bg)	0.0000627	18	53	No	16	6.25	n/a	n/a	0.02	NP
<b>Barium (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>-0.0008036</b>	<b>-74</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>6.25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Barium (mg/L)	YGWA-3I (bg)	0	-4	-53	No	16	6.25	n/a	n/a	0.02	NP
Barium (mg/L)	YGWC-26I	-0.001377	-50	-53	No	16	0	n/a	n/a	0.02	NP
<b>Barium (mg/L)</b>	<b>YGWC-26S</b>	<b>-0.00108</b>	<b>-80</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Barium (mg/L)	YGWC-27I	-0.003166	-59	-53	Yes	16	0	n/a	n/a	0.02	NP
<b>Barium (mg/L)</b>	<b>YGWC-27S</b>	<b>-0.003589</b>	<b>-78</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Barium (mg/L)	YGWC-28I	0	0	53	No	16	0	n/a	n/a	0.02	NP
<b>Barium (mg/L)</b>	<b>YGWC-28S</b>	<b>-0.005296</b>	<b>-59</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Barium (mg/L)</b>	<b>YGWC-29I</b>	<b>-0.00565</b>	<b>-93</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Beryllium (mg/L)	YGWA-14S (bg)	0	-21	-44	No	14	14.29	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-1D (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-1I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-2I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-30I (bg)	0	-5	-44	No	14	92.86	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-3D (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWA-3I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-26I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-26S	-0.00001414	-24	-44	No	14	14.29	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-27I	0.000003256	15	44	No	14	21.43	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-27S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-28I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Beryllium (mg/L)	YGWC-28S	0	0	44	No	14	100	n/a	n/a	0.02	NP

## Appendix IV Trend Tests - All Results

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<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDS</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Beryllium (mg/L)	YGWC-29I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-14S (bg)	0	3	44	No	14	92.86	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-1D (bg)	0	5	44	No	14	92.86	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-1I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-2I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-30I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-3D (bg)	0	5	44	No	14	92.86	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWA-3I (bg)	0	5	44	No	14	92.86	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-26I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-26S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-27I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-27S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-28I	0.00001653	24	44	No	14	14.29	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-28S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Cadmium (mg/L)	YGWC-29I	0.000006972	16	44	No	14	14.29	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-14S (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-1D (bg)	0	-23	-44	No	14	64.29	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-1I (bg)	0	-24	-44	No	14	71.43	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-2I (bg)	0	-6	-44	No	14	78.57	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-30I (bg)	0	1	44	No	14	92.86	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-3D (bg)	0	8	44	No	14	78.57	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWA-3I (bg)	0	-5	-44	No	14	85.71	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-26I	-0.00005034	-29	-44	No	14	57.14	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-26S	-0.0000347	-9	-44	No	14	21.43	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-27I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-27S	0	-7	-44	No	14	85.71	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-28I	0	-10	-44	No	14	78.57	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-28S	0	-3	-44	No	14	85.71	n/a	n/a	0.02	NP
Chromium (mg/L)	YGWC-29I	0	11	44	No	14	92.86	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-14S (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-1D (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-1I (bg)	-0.000004271	-1	-53	No	16	12.5	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-2I (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
<b>Cobalt (mg/L)</b>	<b>YGWA-30I (bg)</b>	<b>-0.003763</b>	<b>-111</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Cobalt (mg/L)	YGWA-3D (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWA-3I (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-26I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-26S	-0.0002527	-44	-53	No	16	6.25	n/a	n/a	0.02	NP
<b>Cobalt (mg/L)</b>	<b>YGWC-27I</b>	<b>0.003813</b>	<b>63</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Cobalt (mg/L)	YGWC-27S	-0.00006569	-38	-53	No	16	6.25	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-28I	0	15	53	No	16	93.75	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-28S	0.00003557	17	53	No	16	6.25	n/a	n/a	0.02	NP
Cobalt (mg/L)	YGWC-29I	0	40	53	No	16	75	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-14S (bg)	-0.05778	-22	-53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-1D (bg)	0.1682	51	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-1I (bg)	0.08289	14	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-2I (bg)	0.08716	28	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-30I (bg)	0.09857	31	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-3D (bg)	0.2698	38	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWA-3I (bg)	0.3365	43	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	0.3153	45	48	No	15	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.06116	34	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	0.4428	40	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	0.1318	40	53	No	16	0	n/a	n/a	0.02	NP
<b>Combined Radium 226 + 228 (pCi/L)</b>	<b>YGWC-28I</b>	<b>0.206</b>	<b>64</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>

## Appendix IV Trend Tests - All Results

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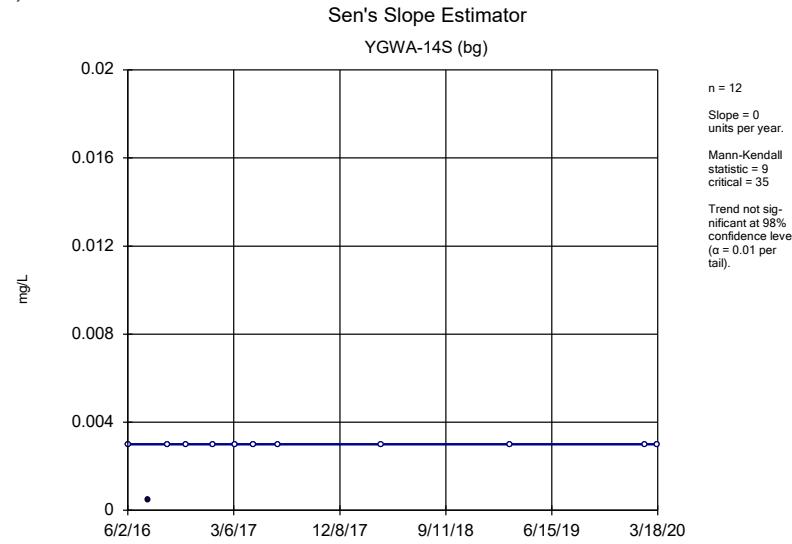
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDS</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.1341	34	53	No	16	0	n/a	n/a	0.02	NP
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	-0.01224	-2	-53	No	16	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-14S (bg)	0	14	58	No	17	94.12	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-1D (bg)	-0.004818	-21	-58	No	17	35.29	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-1I (bg)	0	17	58	No	17	88.24	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-2I (bg)	0	6	58	No	17	23.53	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWA-30I (bg)	0	14	58	No	17	94.12	n/a	n/a	0.02	NP
<b>Fluoride (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>-0.02531</b>	<b>-61</b>	<b>-58</b>	<b>Yes</b>	<b>17</b>	<b>5.882</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Fluoride (mg/L)	YGWA-3I (bg)	-0.01022	-25	-58	No	17	29.41	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-26I	0	-3	-58	No	17	47.06	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-26S	0	13	58	No	17	64.71	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-27I	0	11	58	No	17	70.59	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-27S	-0.03338	-38	-58	No	17	17.65	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-28I	-0.0009203	-14	-58	No	17	29.41	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-28S	-0.02391	-30	-58	No	17	11.76	n/a	n/a	0.02	NP
Fluoride (mg/L)	YGWC-29I	-0.005777	-36	-58	No	17	41.18	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-14S (bg)	0	1	35	No	12	91.67	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-1D (bg)	0	-4	-35	No	12	58.33	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-1I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-2I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-30I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-3D (bg)	0	14	35	No	12	58.33	n/a	n/a	0.02	NP
Lead (mg/L)	YGWA-3I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-26I	0	-11	-35	No	12	91.67	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-26S	0	-13	-35	No	12	83.33	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-27I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-27S	0	-14	-35	No	12	75	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-28I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-28S	0	-22	-35	No	12	75	n/a	n/a	0.02	NP
Lead (mg/L)	YGWC-29I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-14S (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-1D (bg)	-0.001625	-47	-53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-1I (bg)	-0.00007918	-41	-53	No	16	18.75	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-2I (bg)	-0.0005677	-53	-53	No	16	12.5	n/a	n/a	0.02	NP
<b>Lithium (mg/L)</b>	<b>YGWA-30I (bg)</b>	<b>-0.007672</b>	<b>-54</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>56.25</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Lithium (mg/L)	YGWA-3D (bg)	0.0005207	37	53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWA-3I (bg)	0.0005239	27	53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-26I	0.0001336	40	53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-26S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-27I	-0.00005456	-4	-53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-27S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-28I	-0.00009645	-34	-53	No	16	0	n/a	n/a	0.02	NP
Lithium (mg/L)	YGWC-28S	0	0	53	No	16	100	n/a	n/a	0.02	NP
<b>Lithium (mg/L)</b>	<b>YGWC-29I</b>	<b>-0.0005137</b>	<b>-61</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Mercury (mg/L)	YGWA-14S (bg)	0	-6	-39	No	13	92.31	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-1D (bg)	0	-15	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-1I (bg)	0	-6	-39	No	13	92.31	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-2I (bg)	0	0	39	No	13	100	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-30I (bg)	0	-13	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-3D (bg)	0	-13	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWA-3I (bg)	0	-13	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-26I	0	-14	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-26S	0	-13	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-27I	0	-15	-39	No	13	84.62	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-27S	0	-15	-39	No	13	84.62	n/a	n/a	0.02	NP

## Appendix IV Trend Tests - All Results

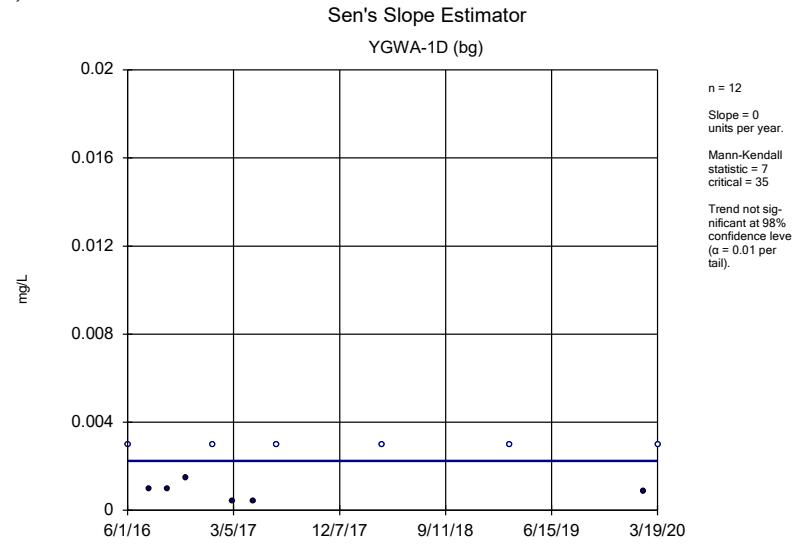
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:49 PM

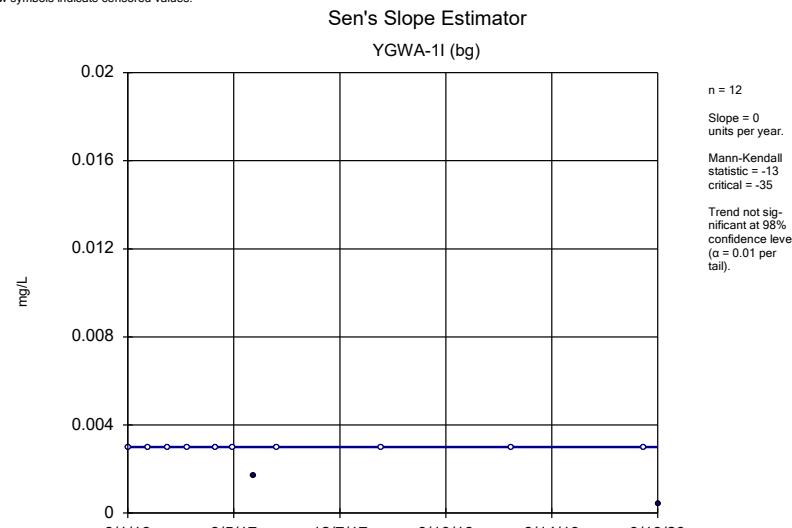
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Mercury (mg/L)	YGWC-28I	0	-6	-39	No	13	92.31	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-28S	0	-6	-39	No	13	92.31	n/a	n/a	0.02	NP
Mercury (mg/L)	YGWC-29I	0	-15	-39	No	13	84.62	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-14S (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
<b>Molybdenum (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>-0.0008772</b>	<b>-70</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Molybdenum (mg/L)</b>	<b>YGWA-1I (bg)</b>	<b>-0.001096</b>	<b>-76</b>	<b>-53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Molybdenum (mg/L)	YGWA-2I (bg)	0.00004235	4	53	No	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWA-30I (bg)	0	0	53	No	16	100	n/a	n/a	0.02	NP
<b>Molybdenum (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>0.0008155</b>	<b>70</b>	<b>53</b>	<b>Yes</b>	<b>16</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Molybdenum (mg/L)	YGWA-3I (bg)	-0.0001073	-6	-53	No	16	0	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-26I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-26S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-27I	0	-3	-53	No	16	62.5	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-27S	0	0	53	No	16	100	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-28I	0	-5	-53	No	16	56.25	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-28S	0	17	53	No	16	87.5	n/a	n/a	0.02	NP
Molybdenum (mg/L)	YGWC-29I	0	0	53	No	16	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-14S (bg)	0	35	44	No	14	64.29	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-1D (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-1I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-2I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-30I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-3D (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWA-3I (bg)	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-26I	0	-5	-44	No	14	14.29	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-26S	0	35	44	No	14	71.43	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-27I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-27S	0	0	44	No	14	100	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-28I	0	3	44	No	14	92.86	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-28S	0	9	44	No	14	92.86	n/a	n/a	0.02	NP
Selenium (mg/L)	YGWC-29I	0	0	44	No	14	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-14S (bg)	0	-9	-35	No	12	91.67	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-1D (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-1I (bg)	0	-9	-35	No	12	91.67	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-2I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-30I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-3D (bg)	0	9	35	No	12	91.67	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWA-3I (bg)	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-26I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-26S	0	-21	-35	No	12	83.33	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-27I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-27S	0	-5	-35	No	12	50	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-28I	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-28S	0	0	35	No	12	100	n/a	n/a	0.02	NP
Thallium (mg/L)	YGWC-29I	0	0	35	No	12	100	n/a	n/a	0.02	NP



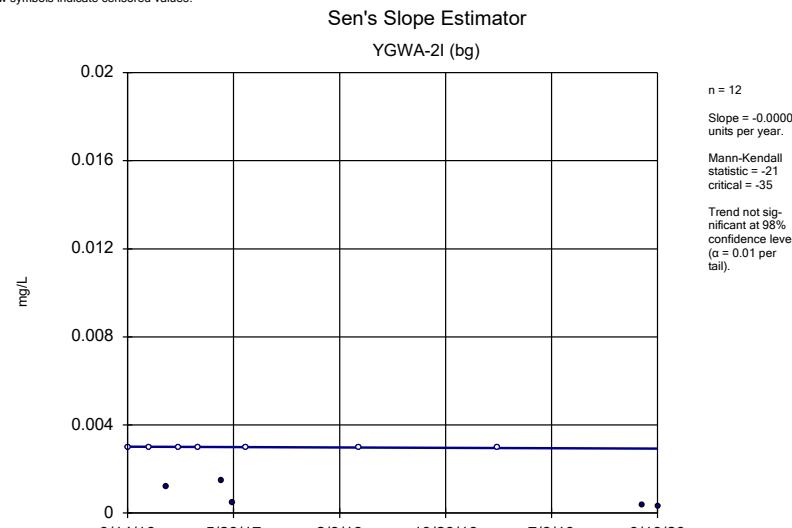
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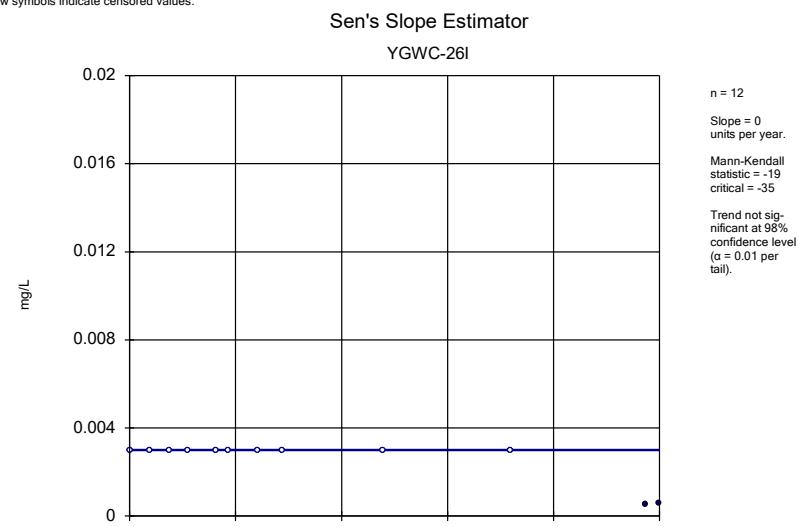
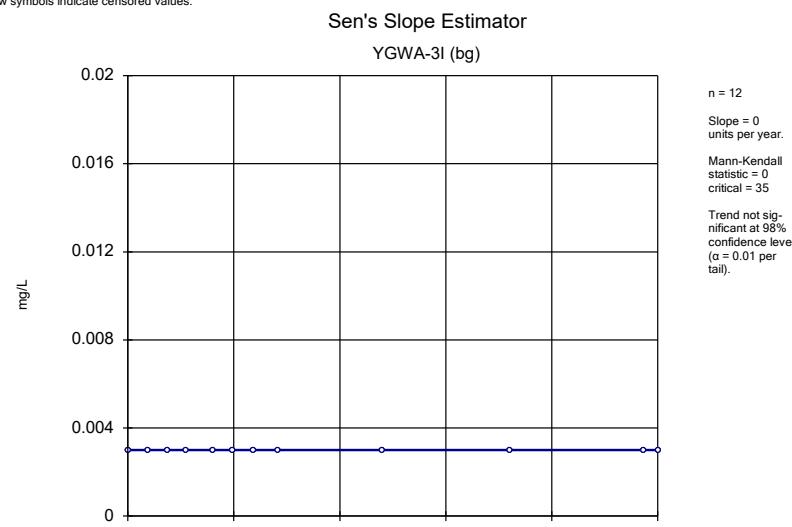
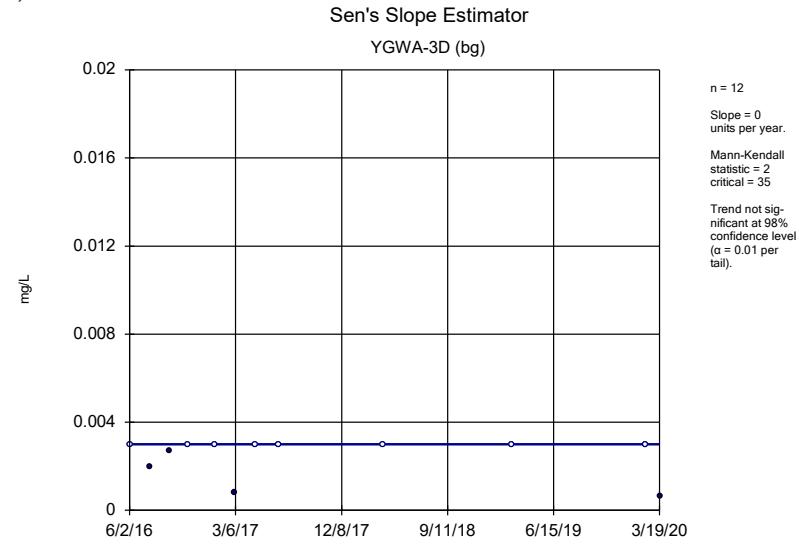
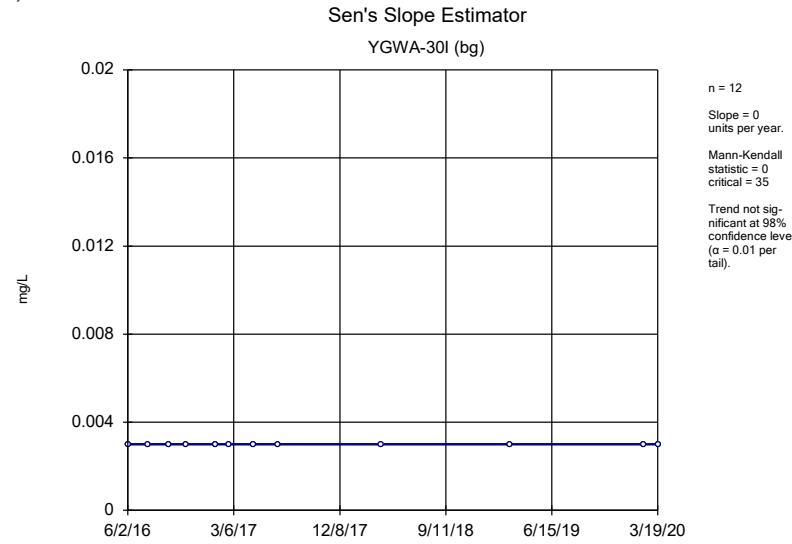
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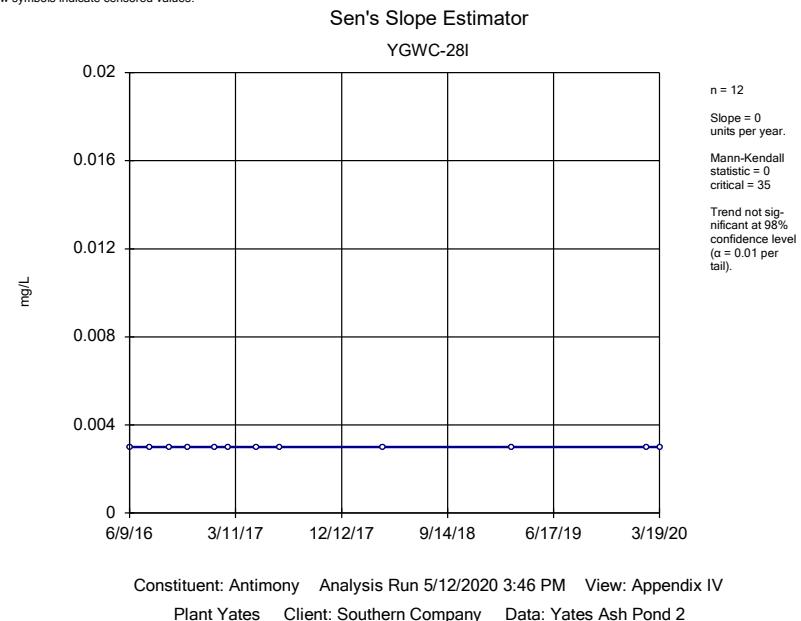
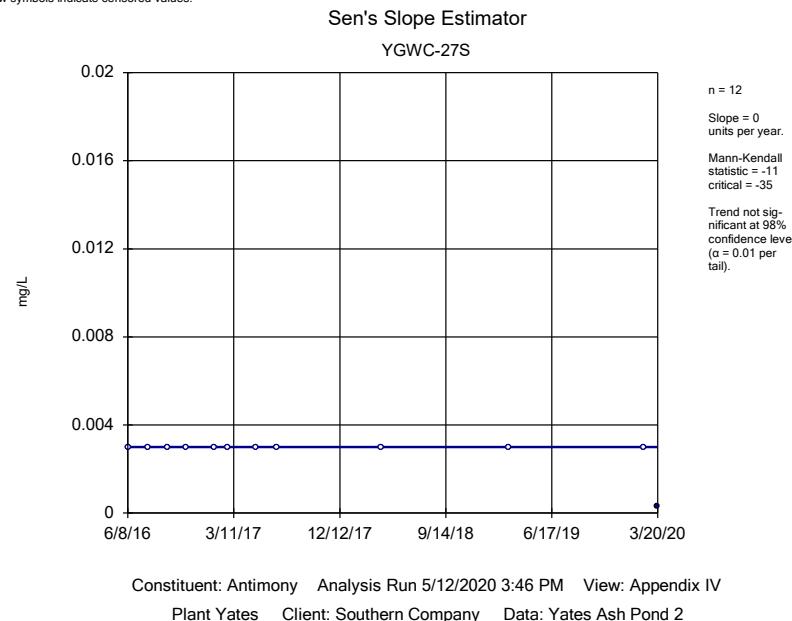
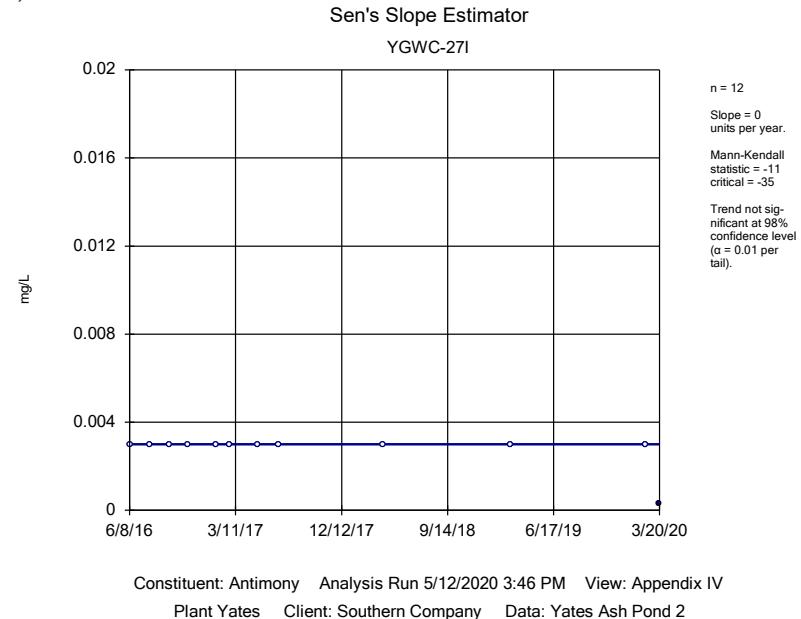
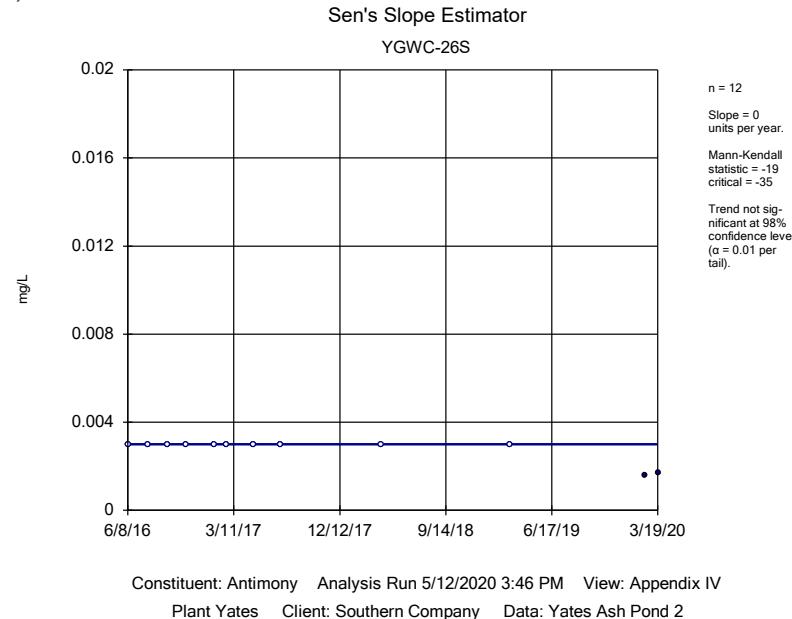


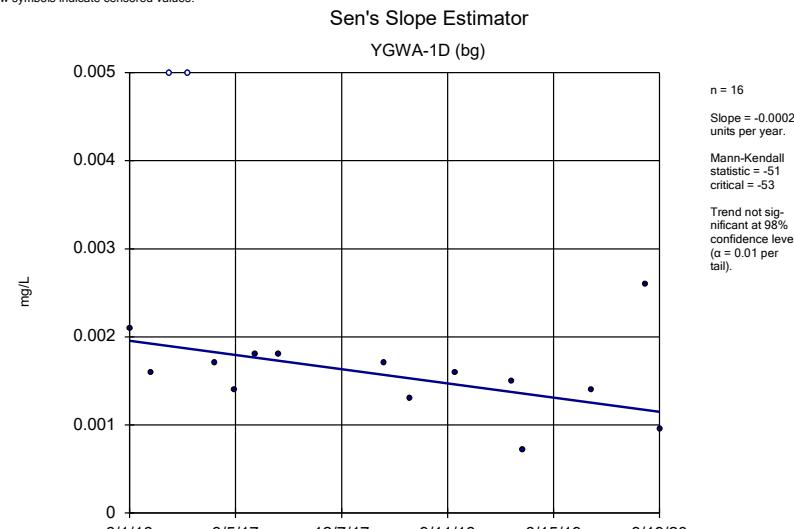
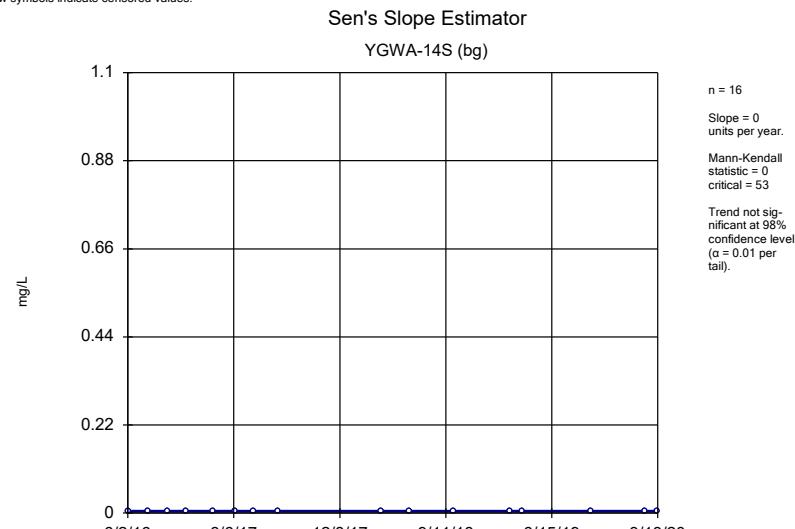
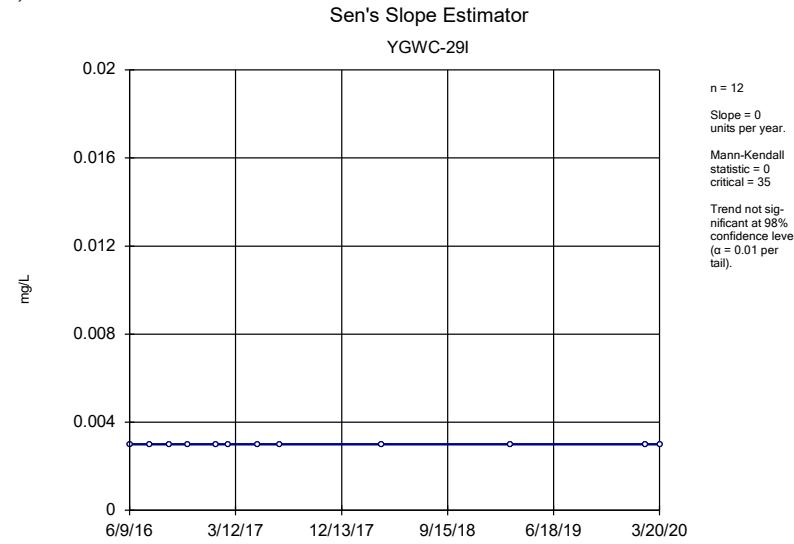
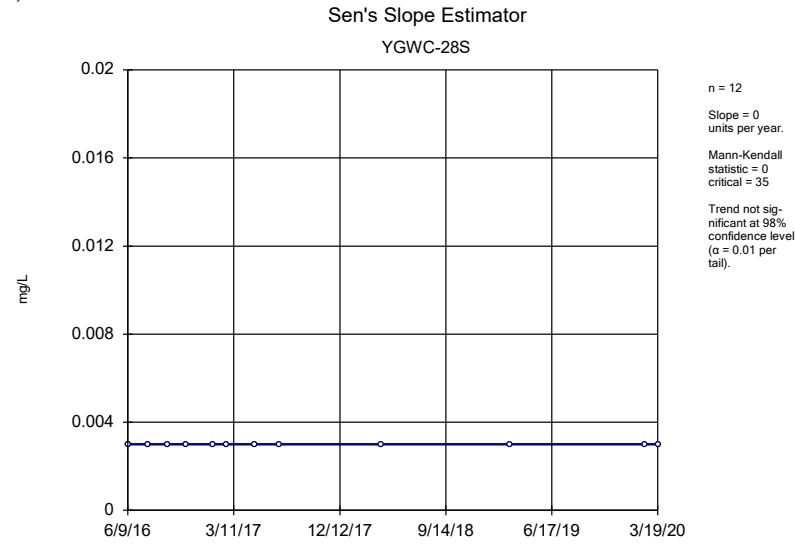
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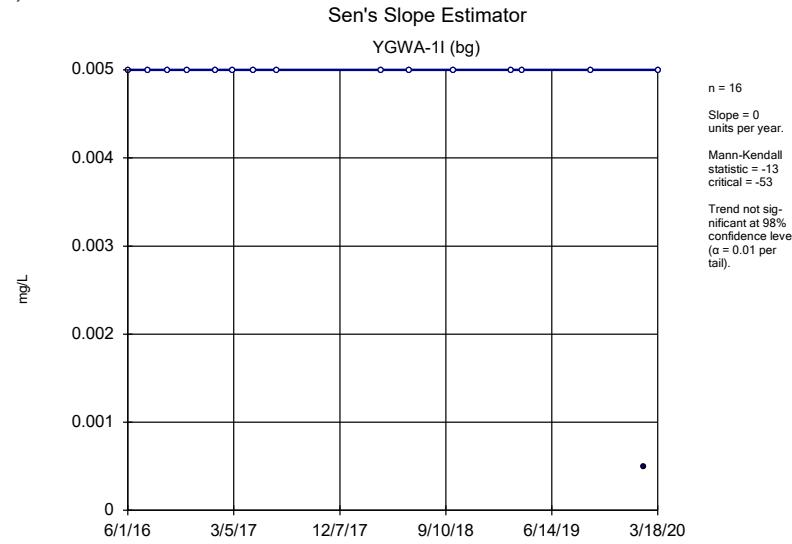
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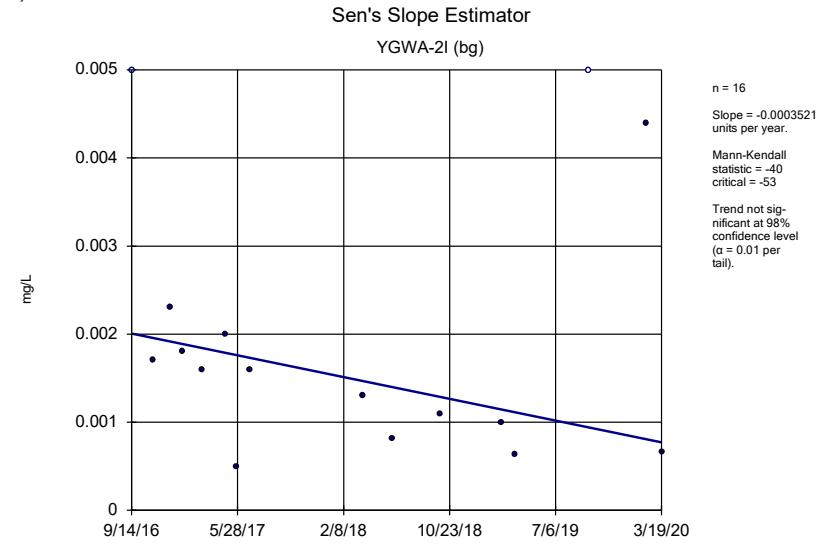


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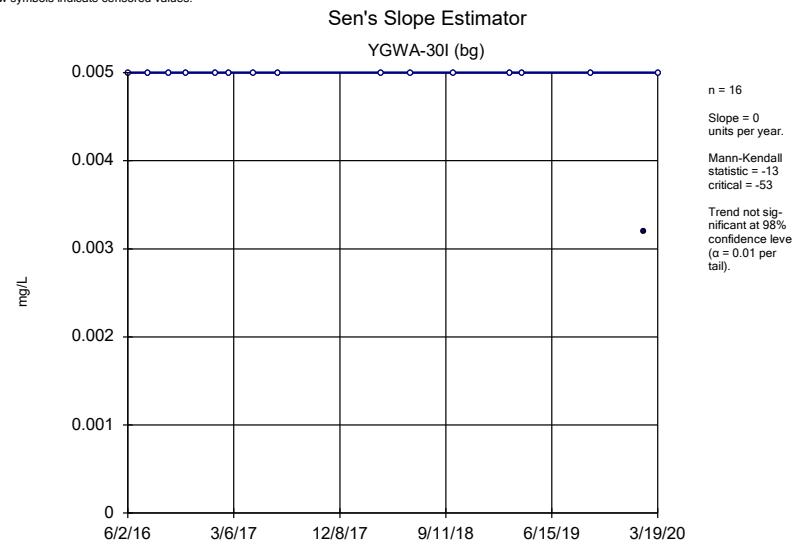
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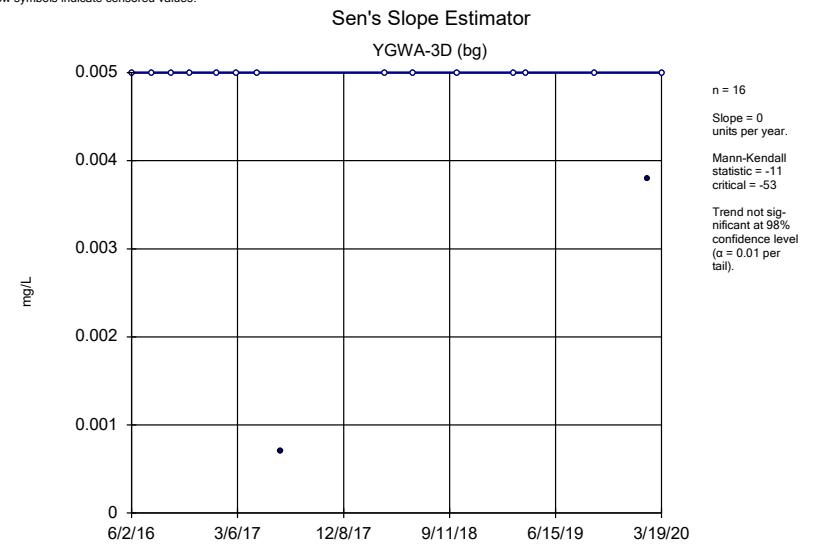
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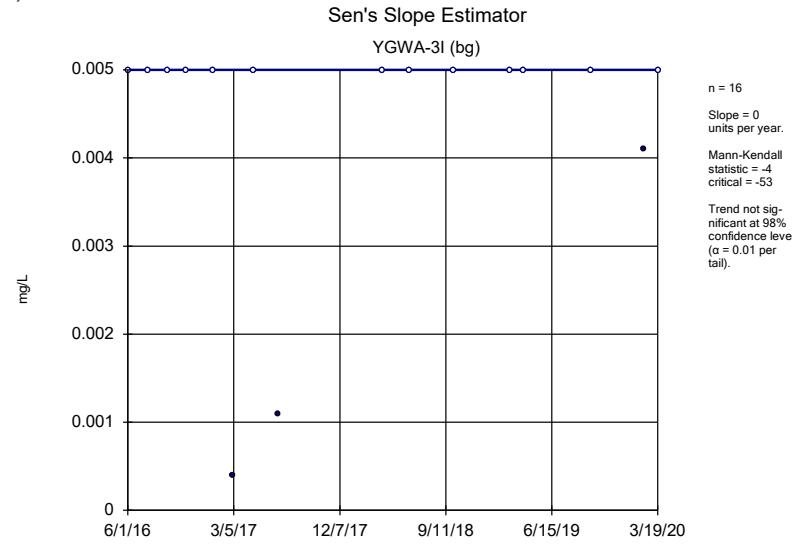
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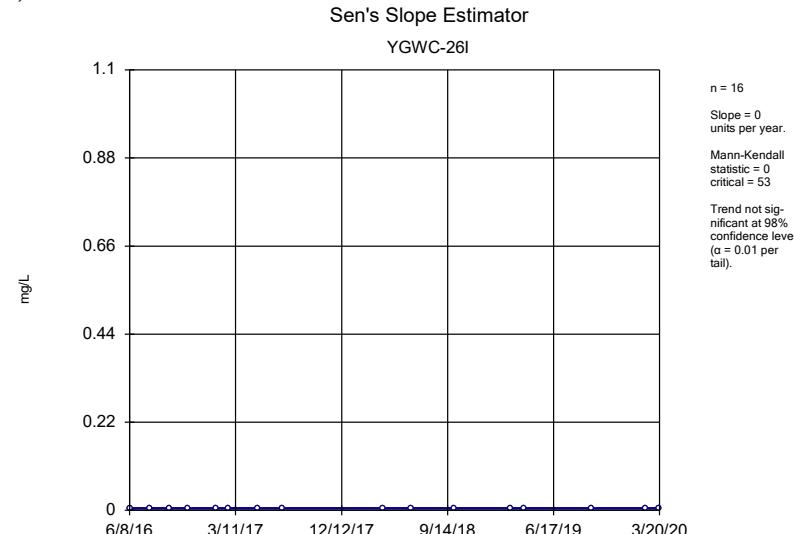
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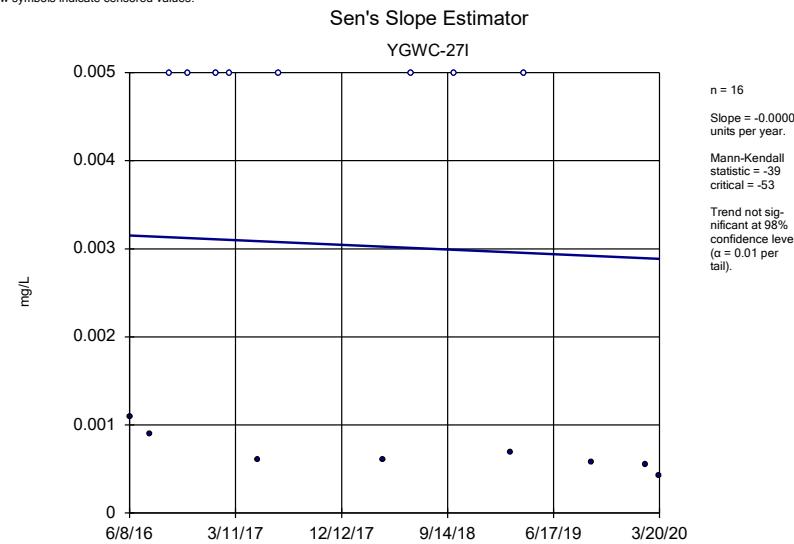
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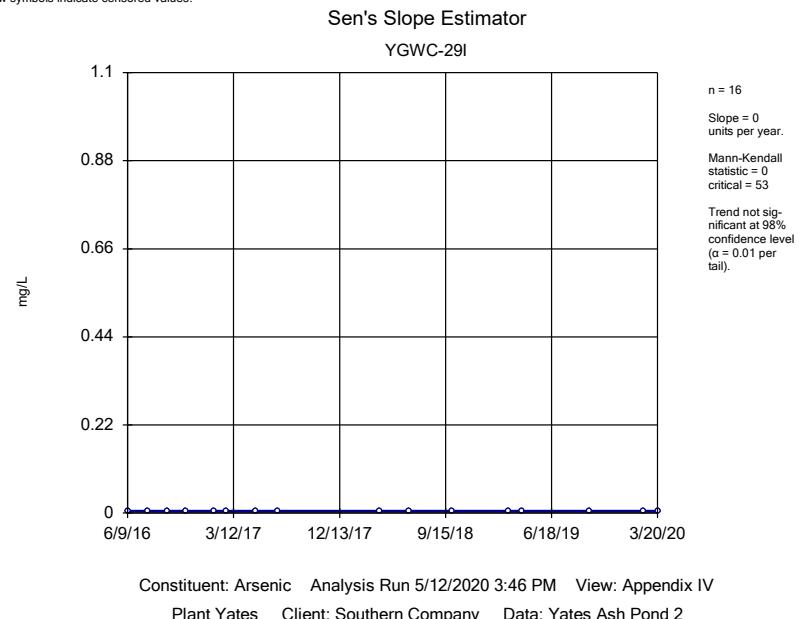
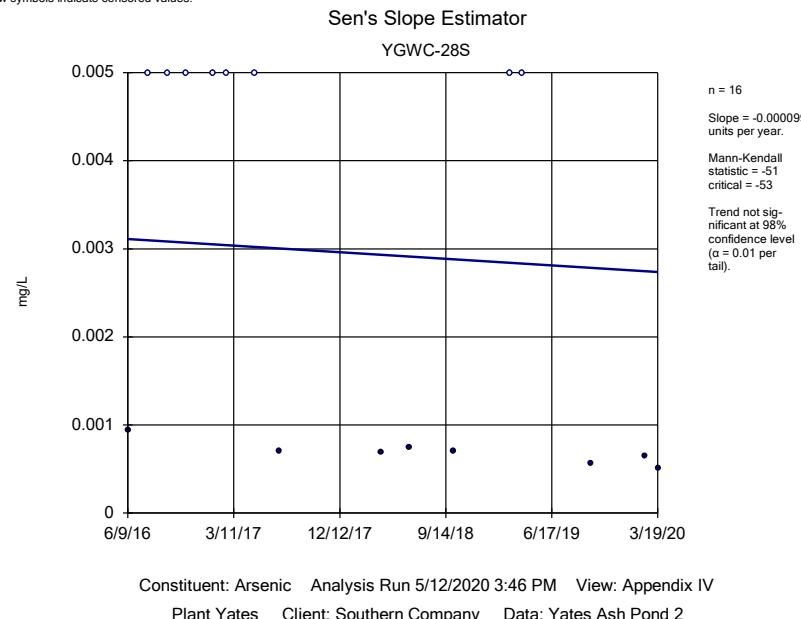
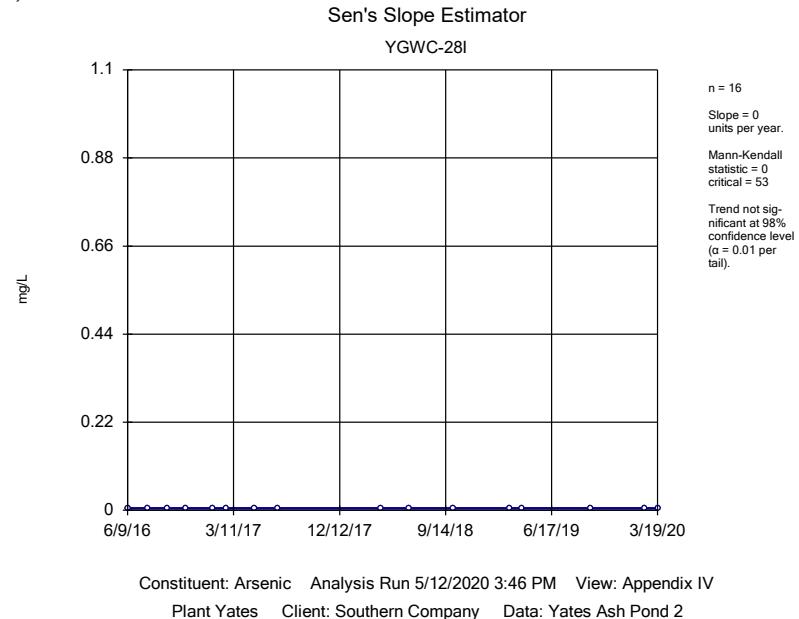
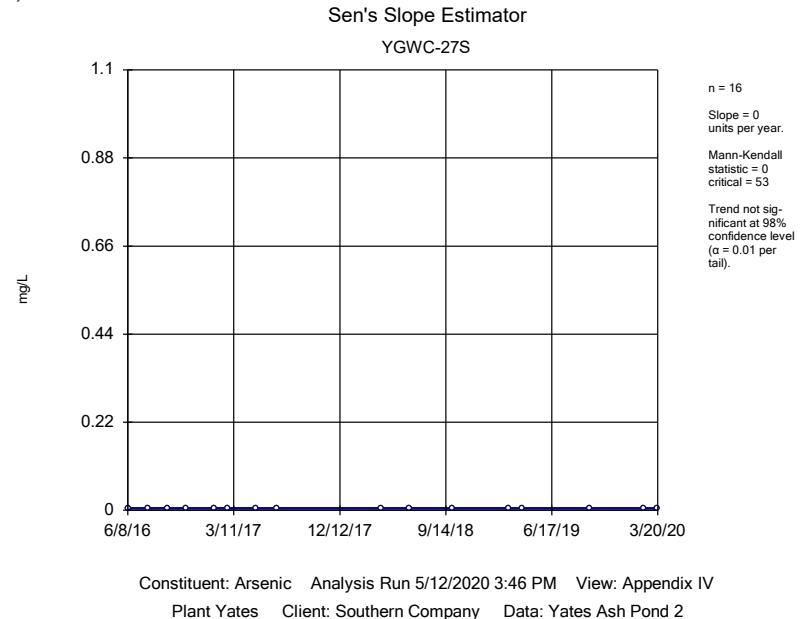


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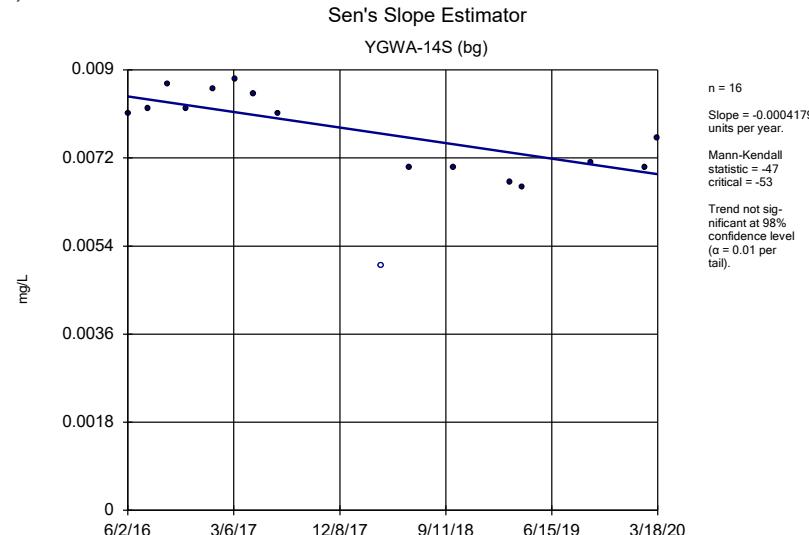
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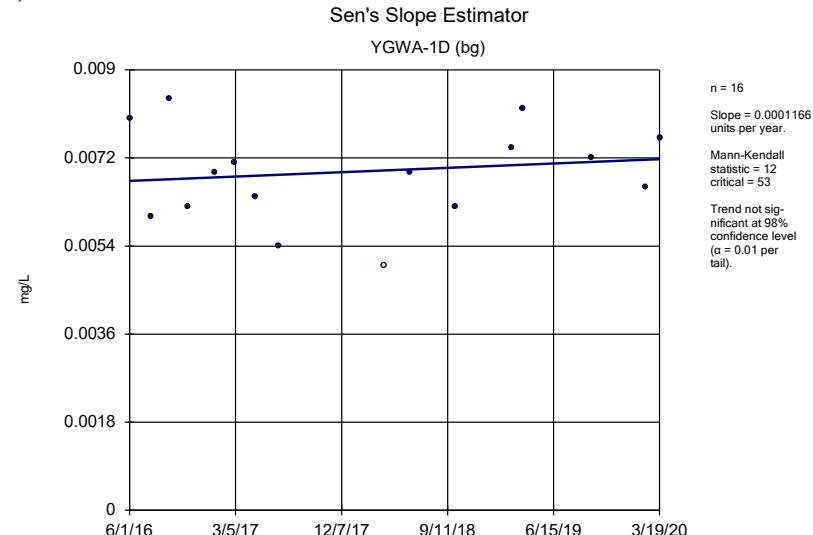
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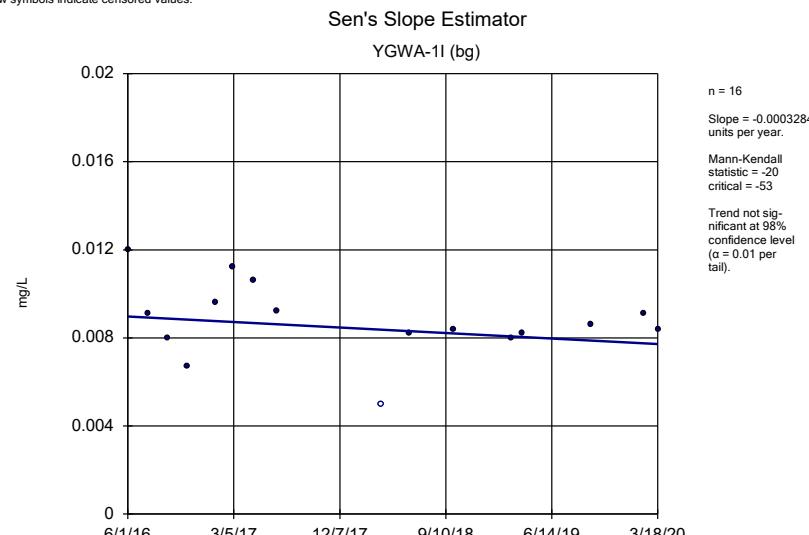
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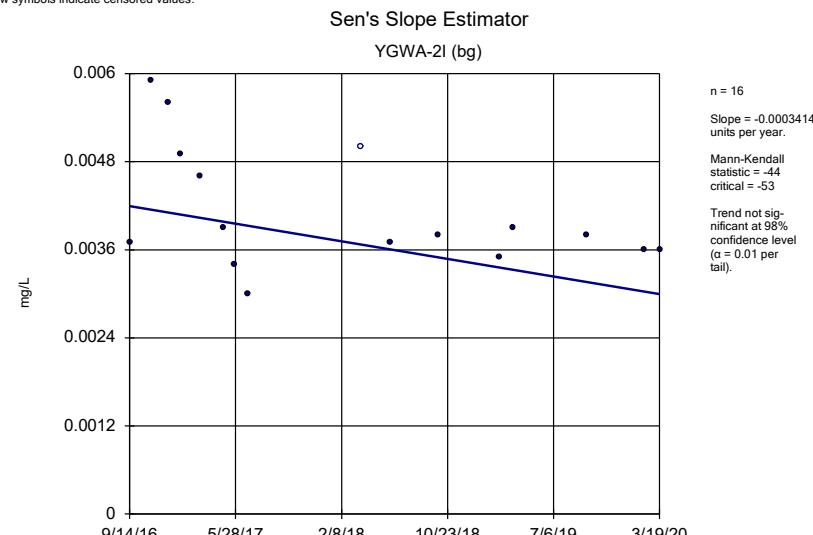
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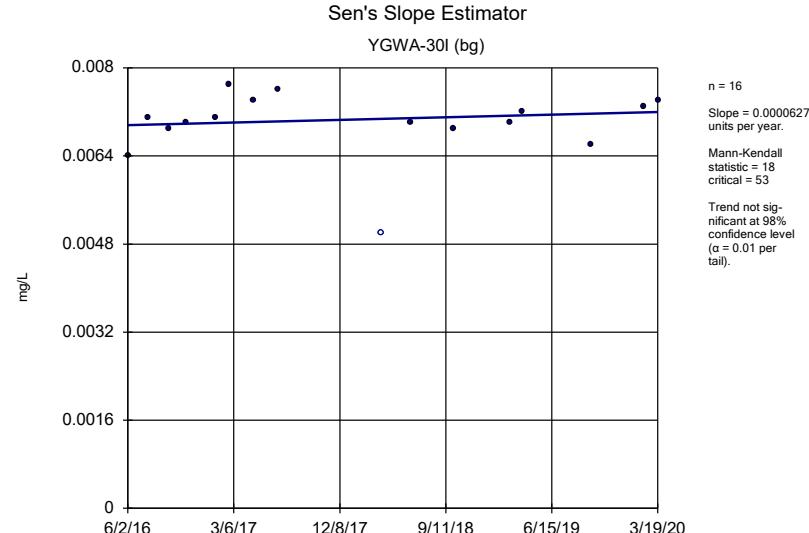
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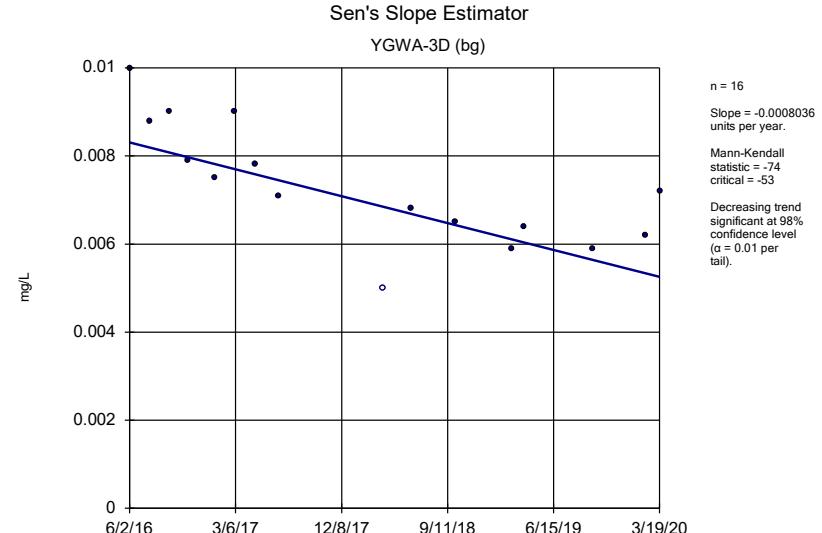
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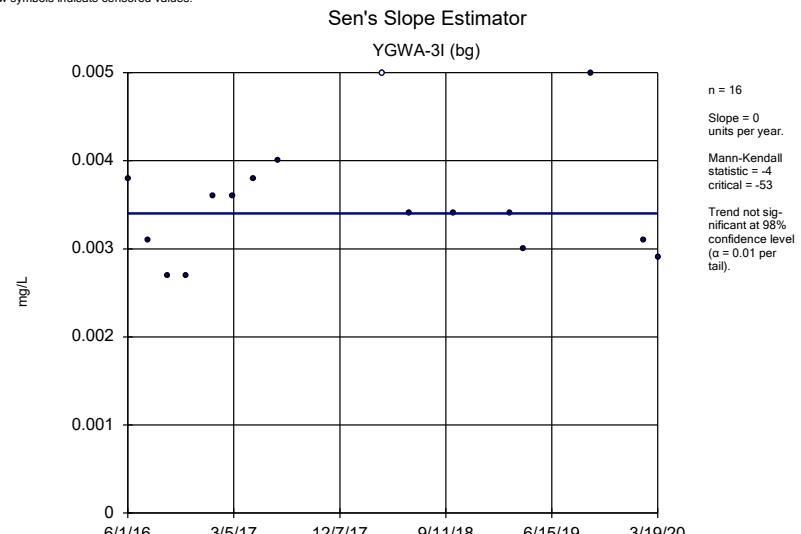
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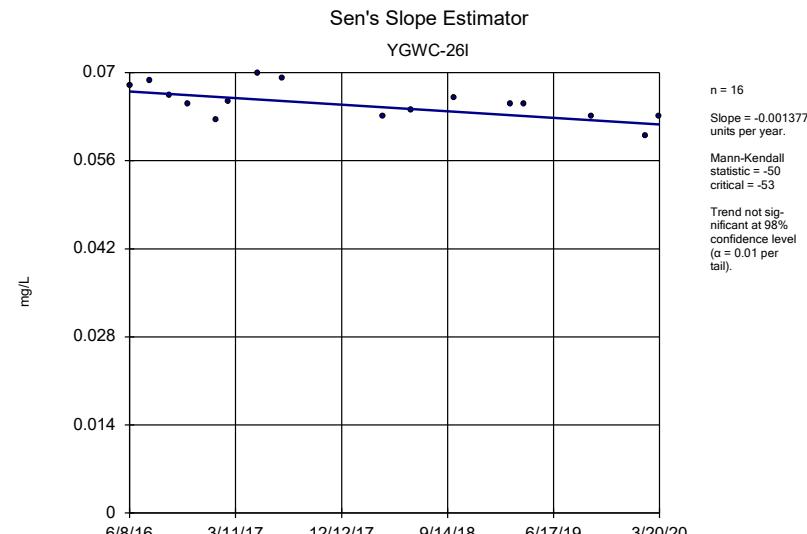
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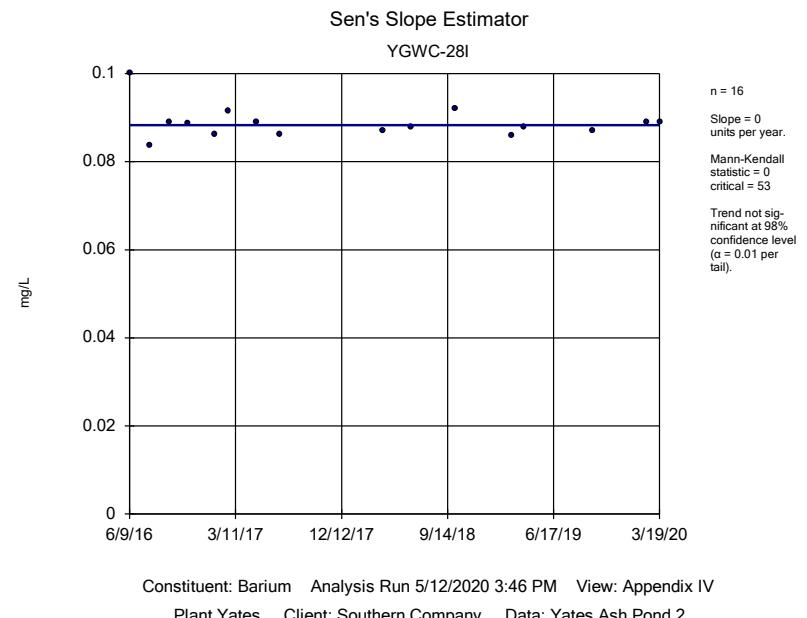
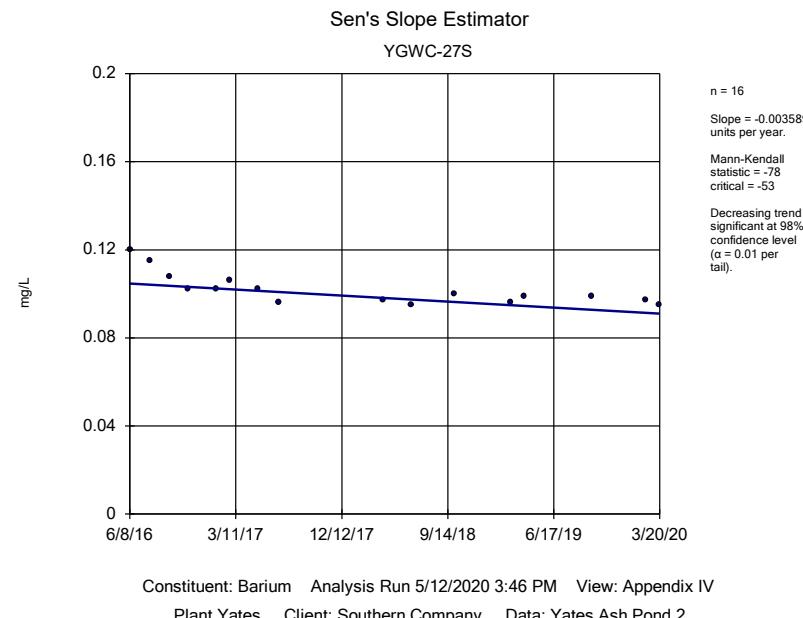
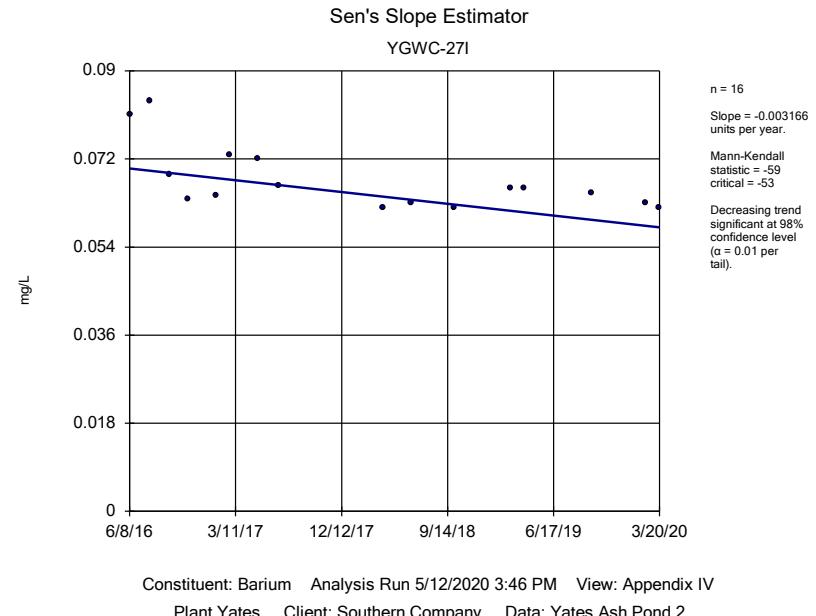
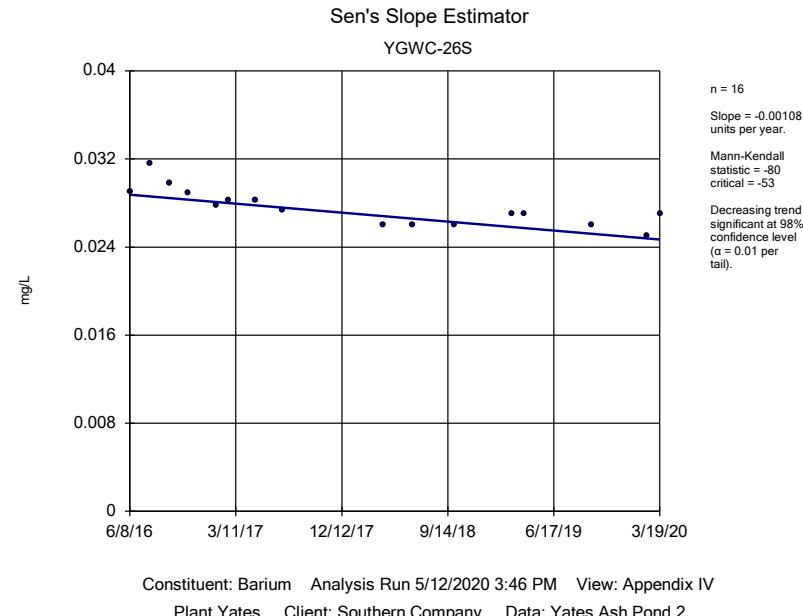


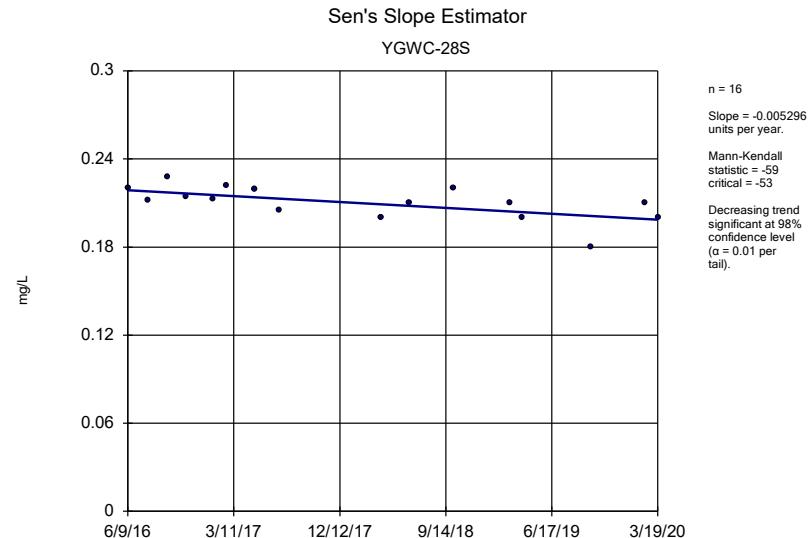
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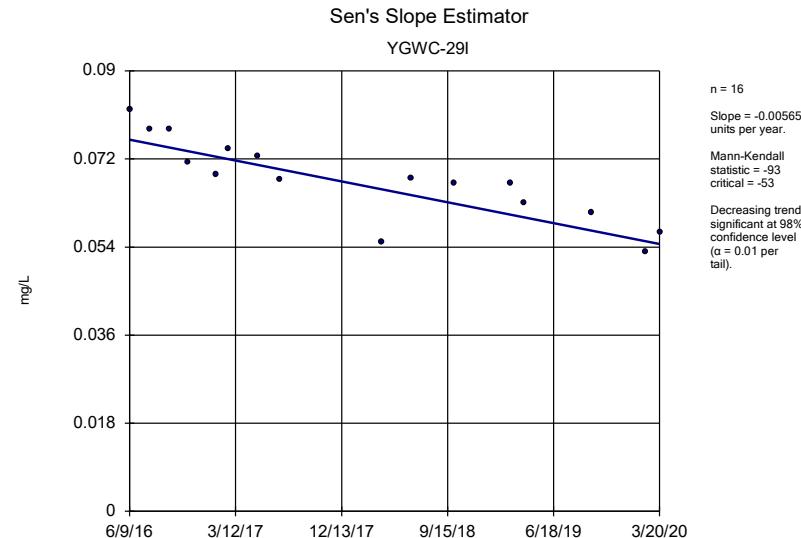
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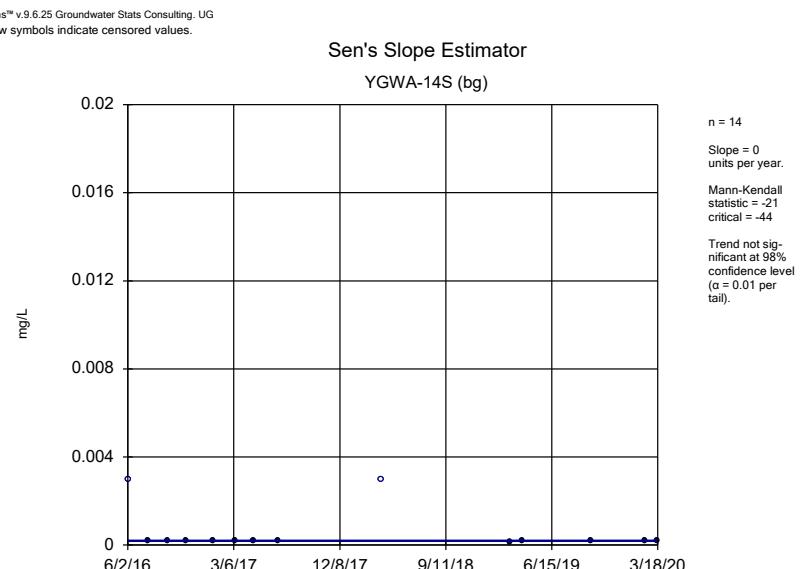




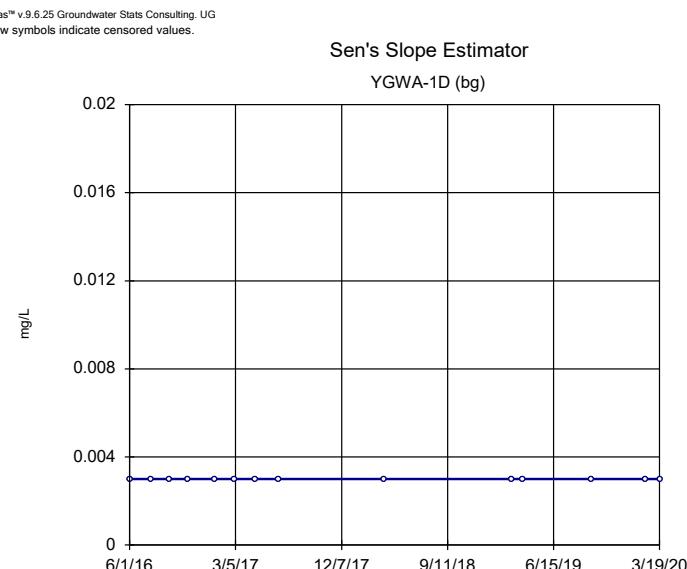
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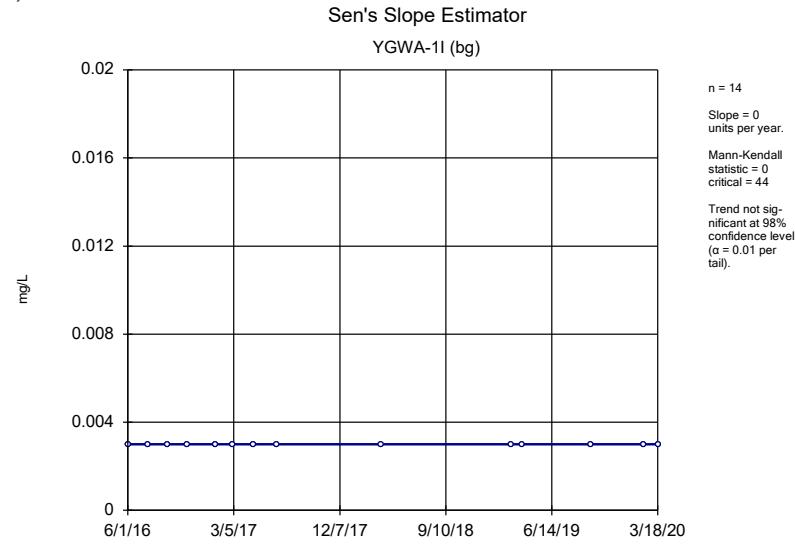
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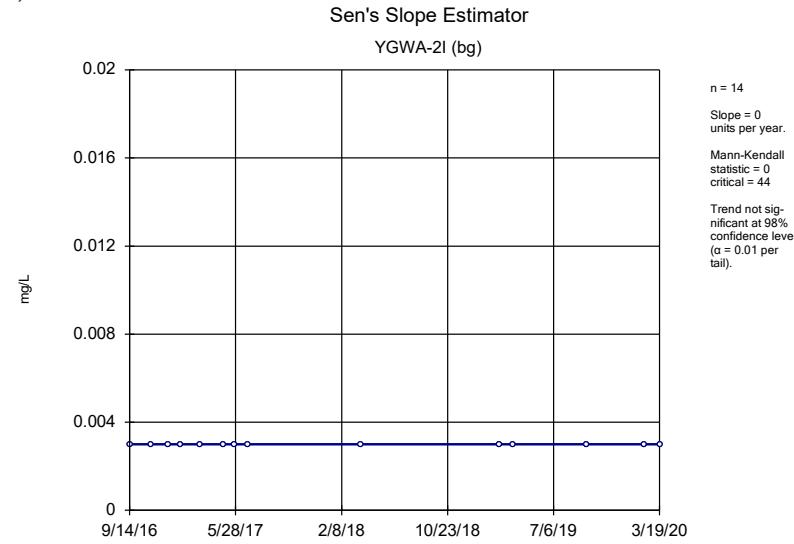
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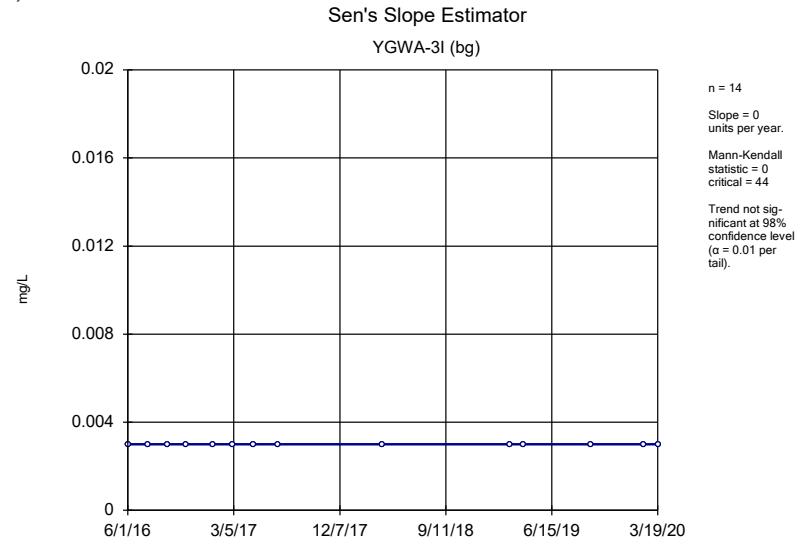
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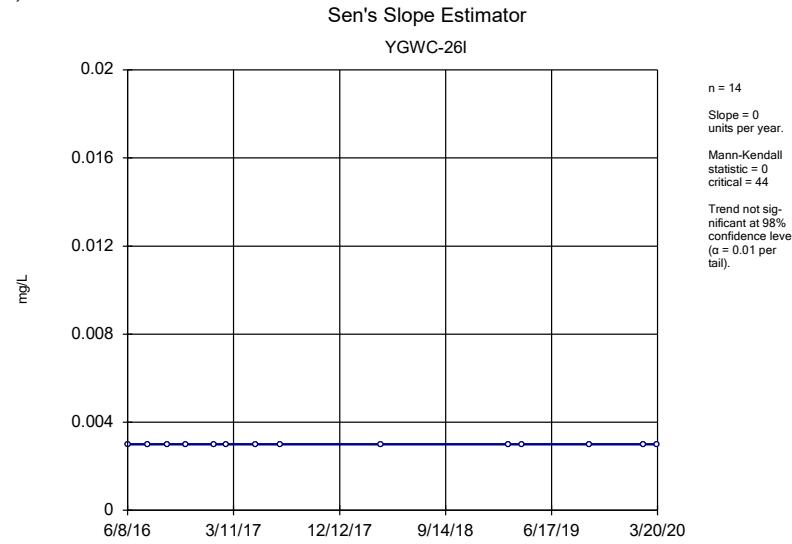
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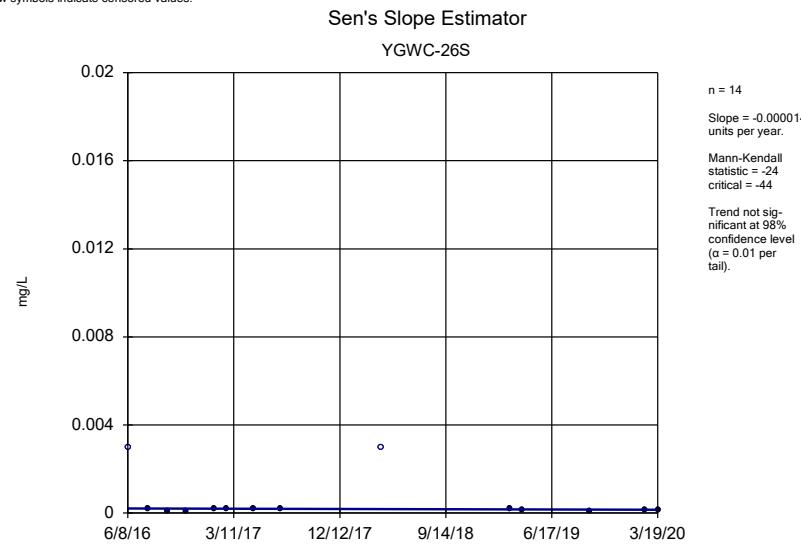
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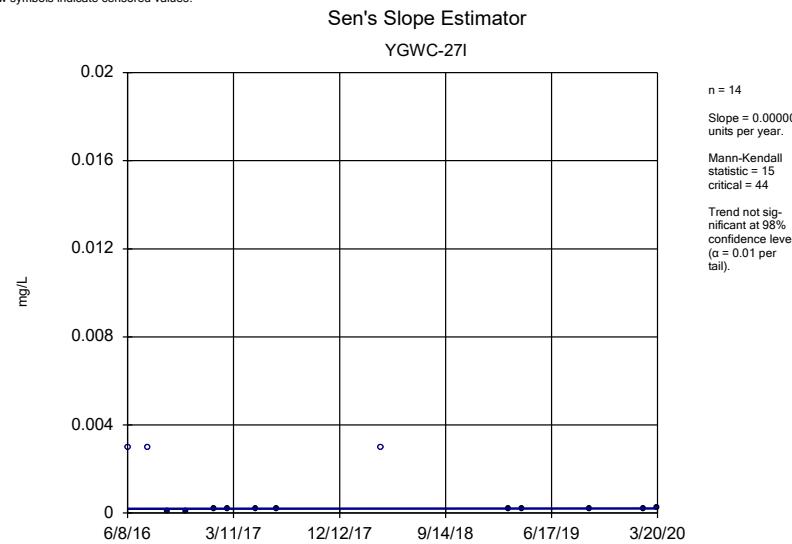
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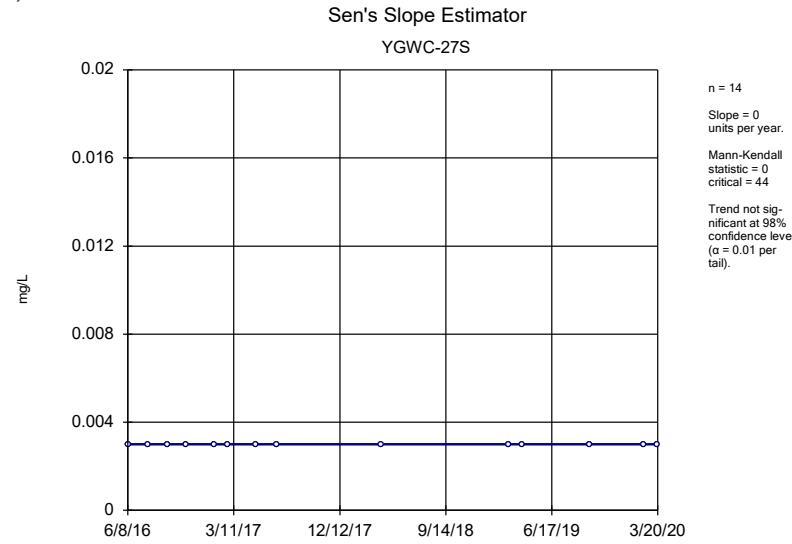
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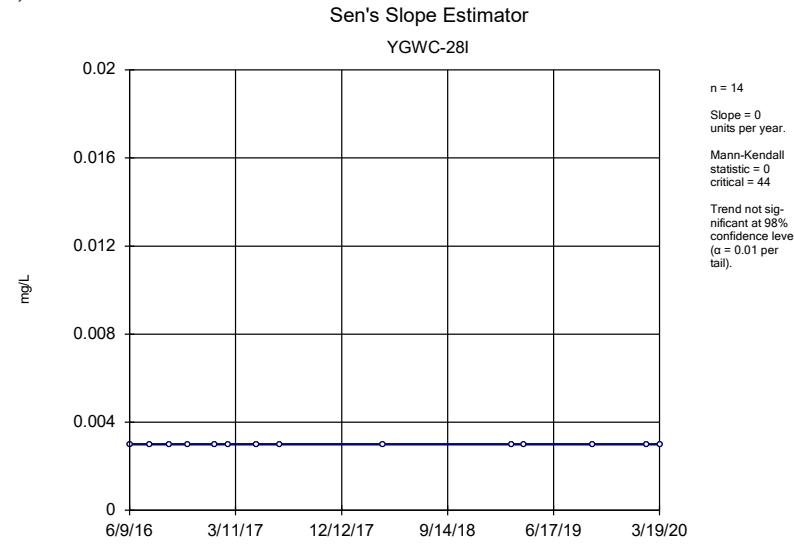
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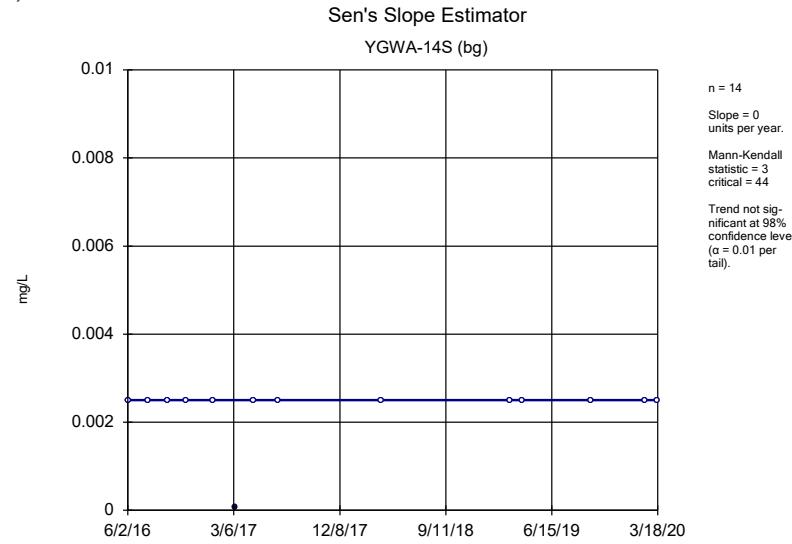
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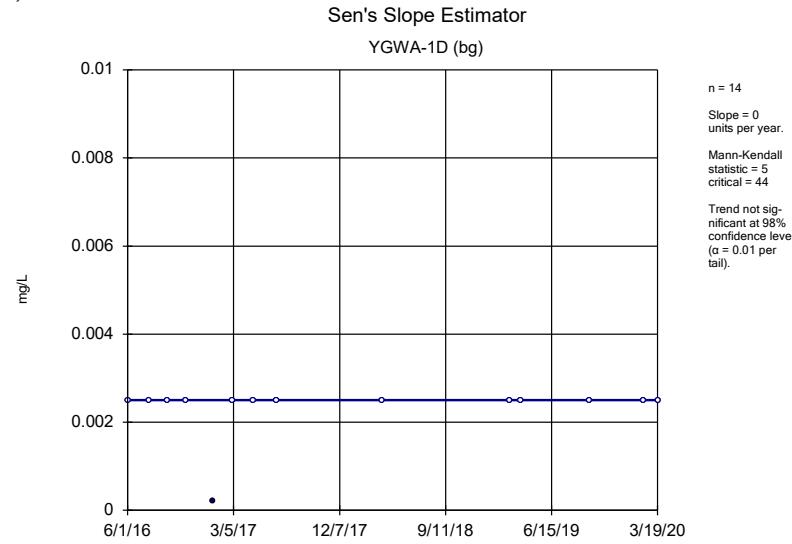
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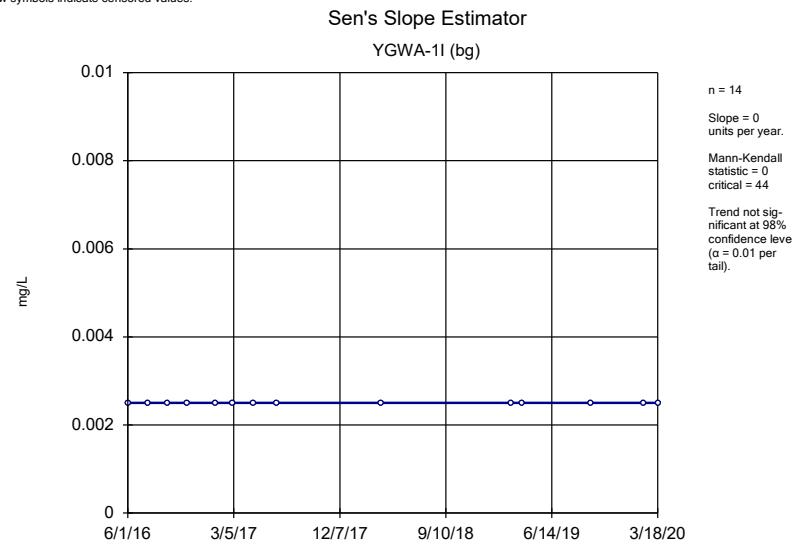
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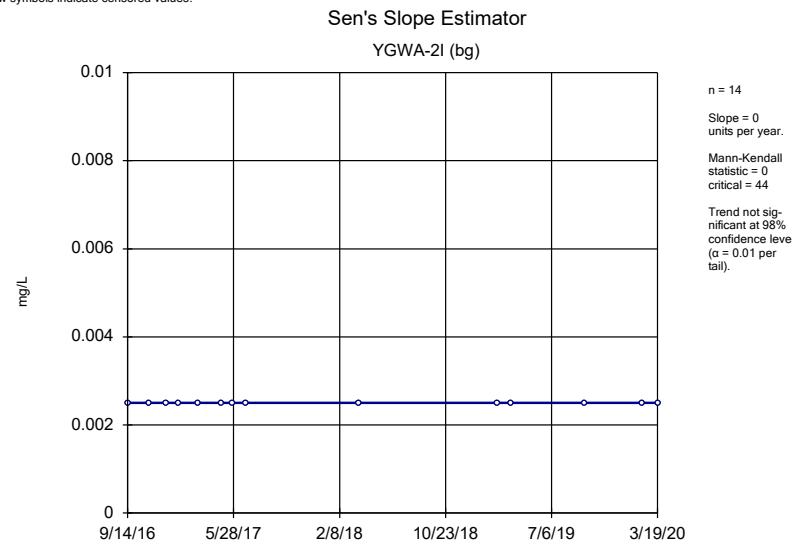
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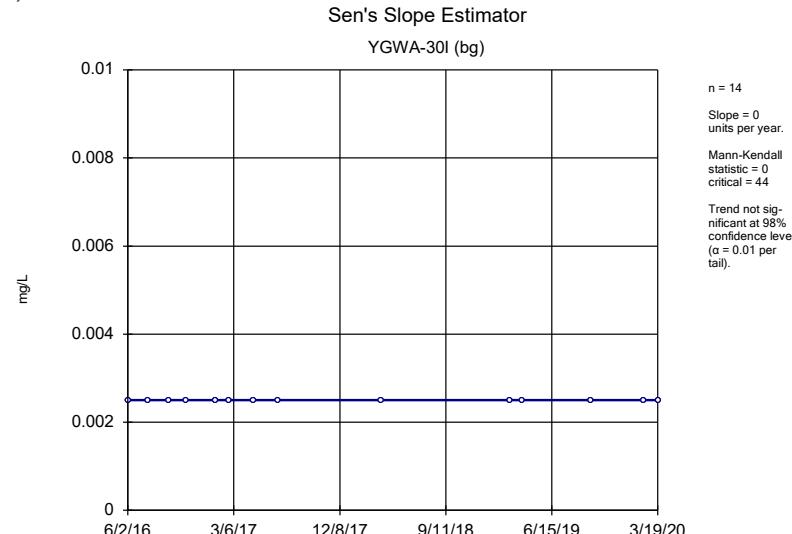


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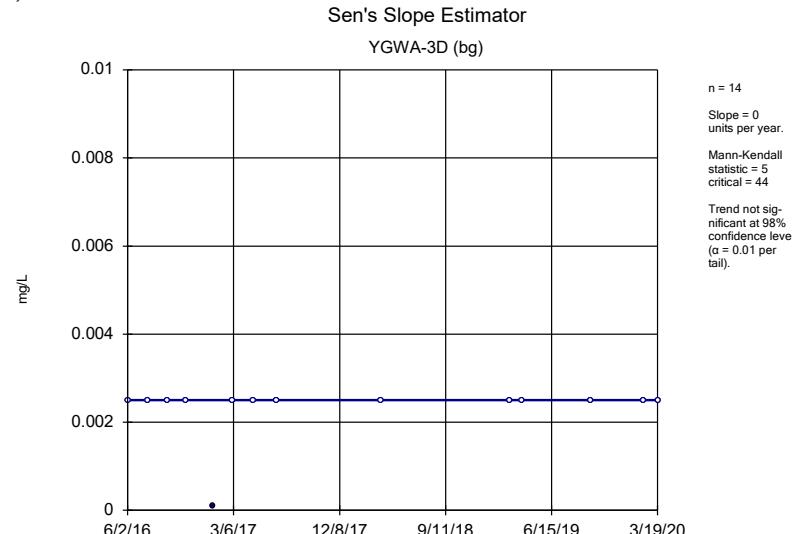
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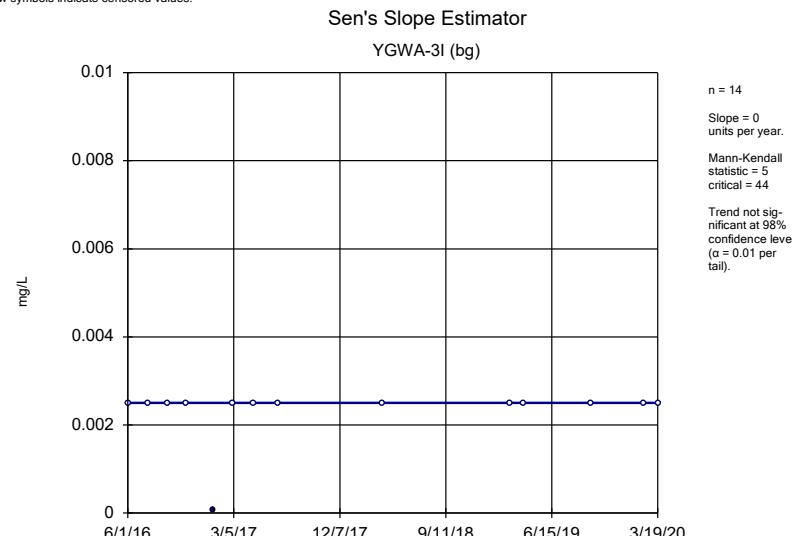
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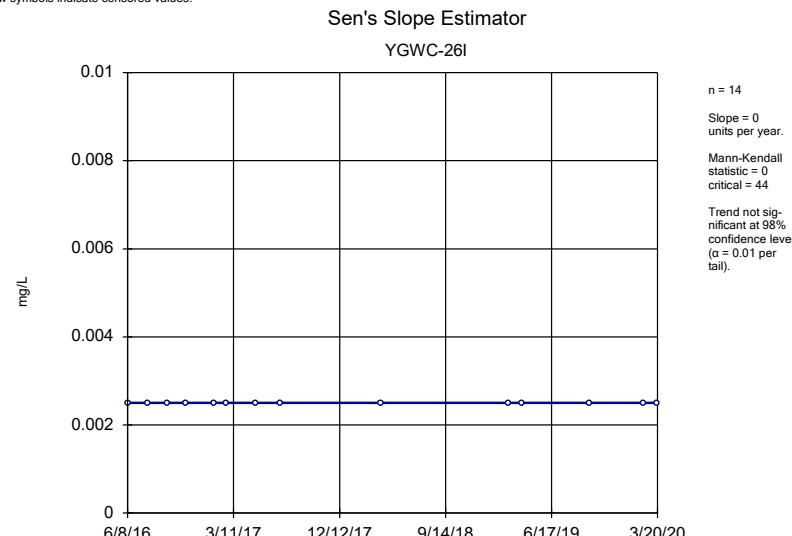
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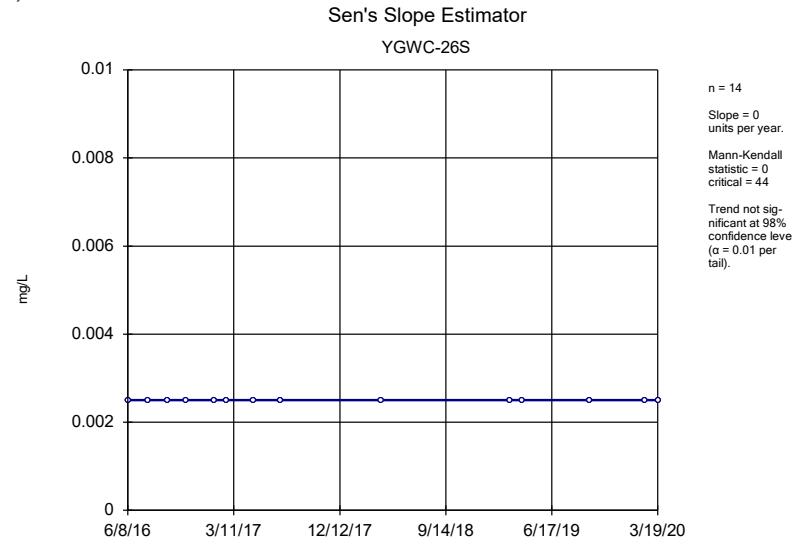


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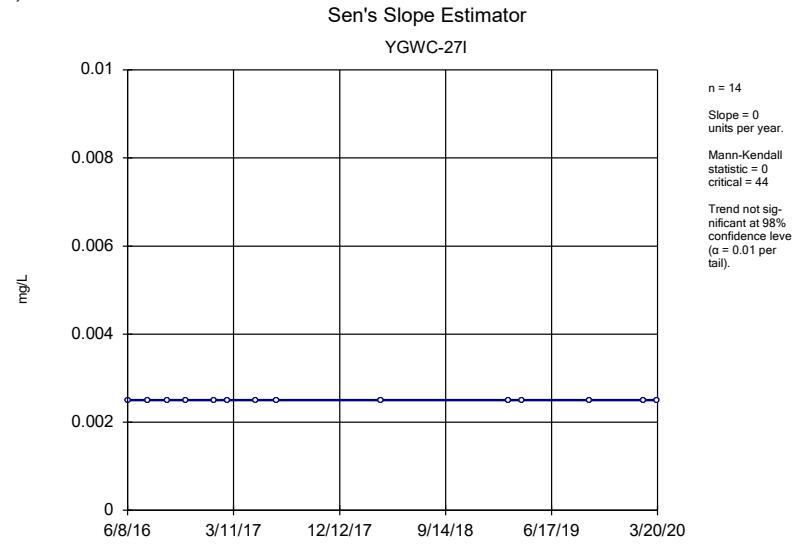
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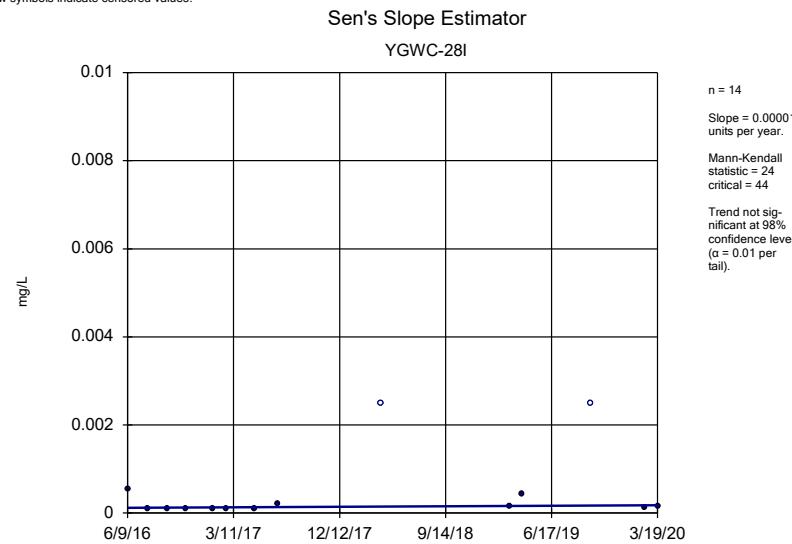
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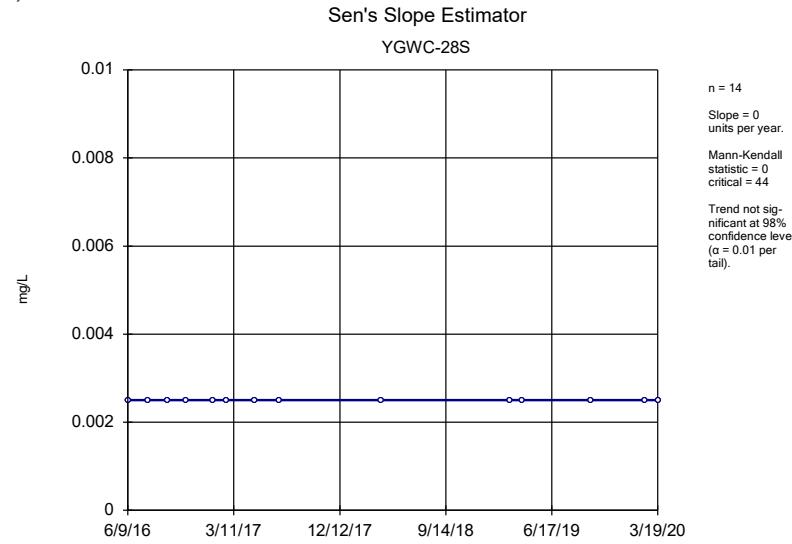


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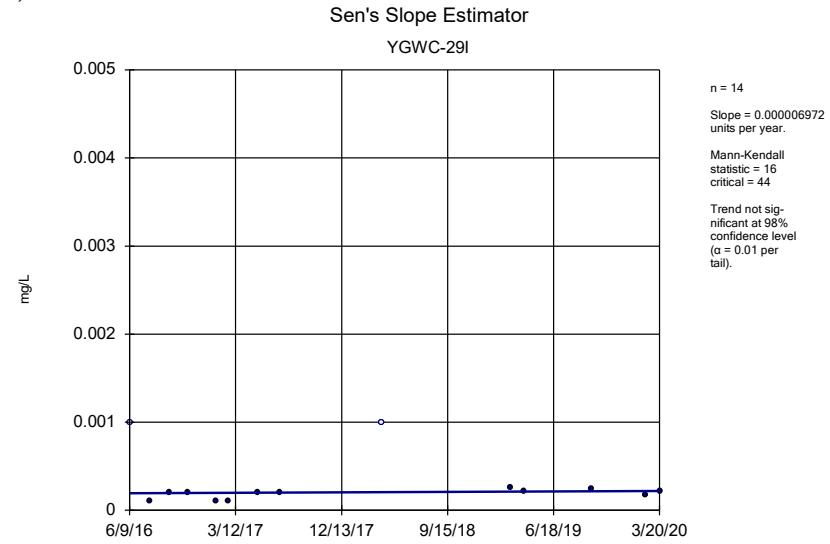


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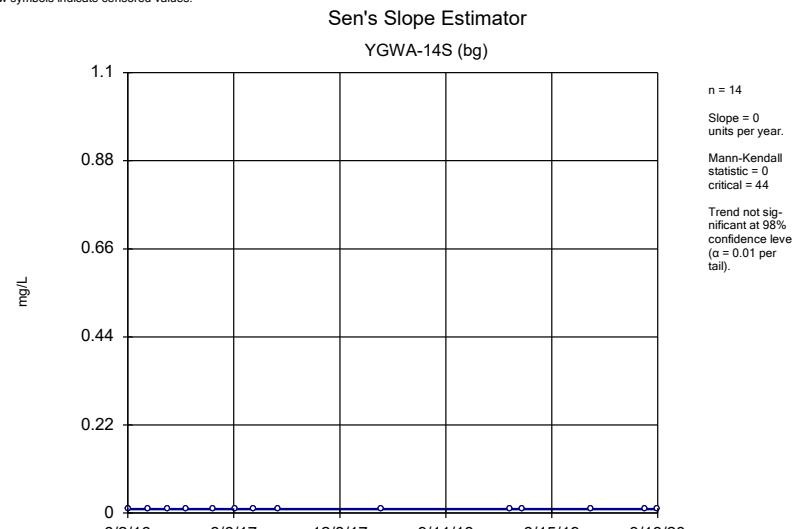
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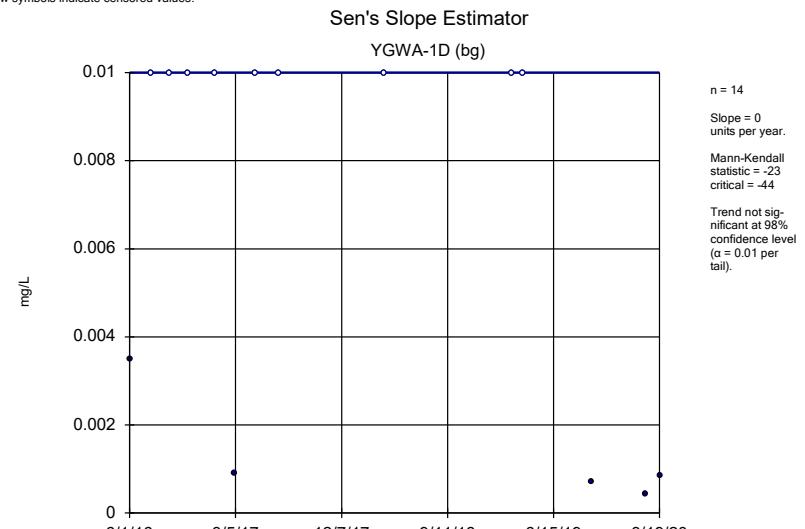
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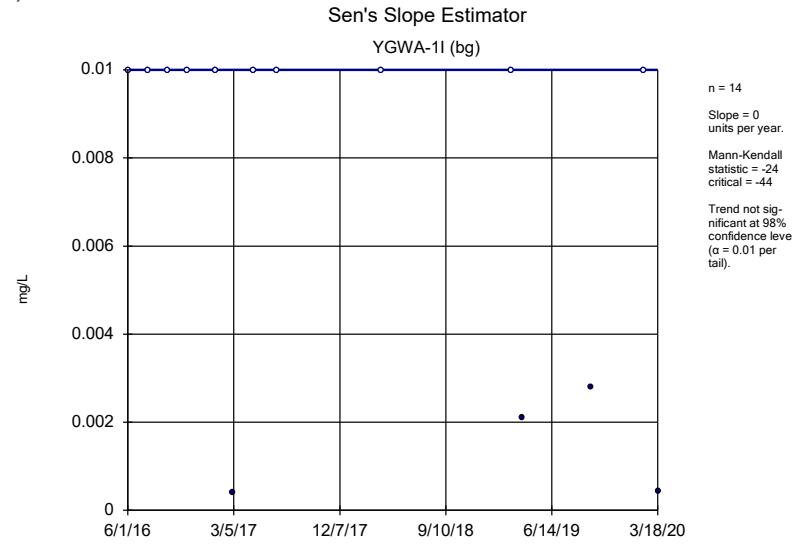
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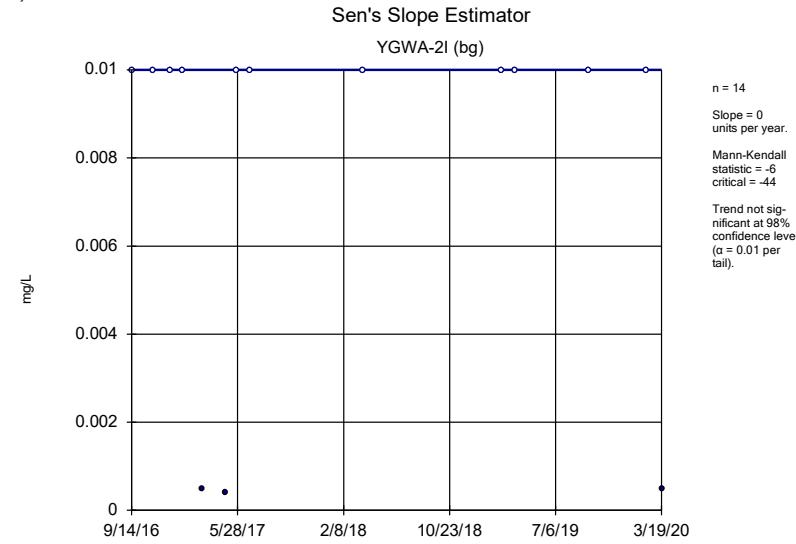


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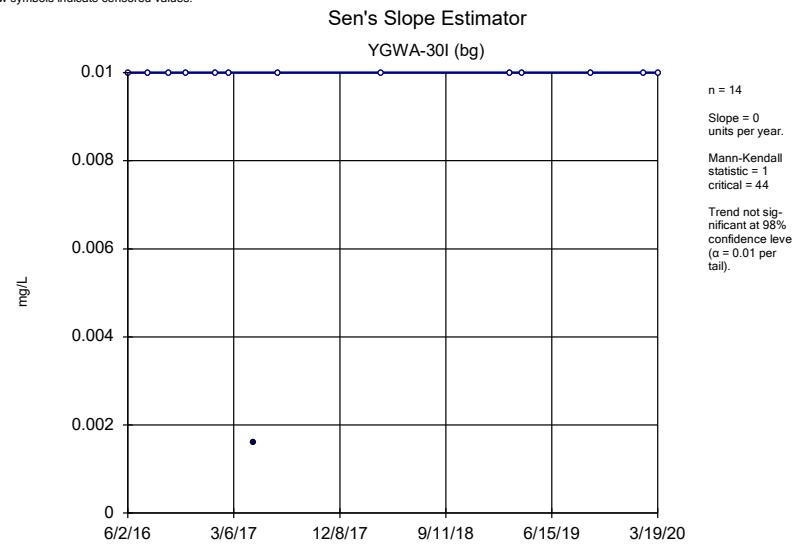
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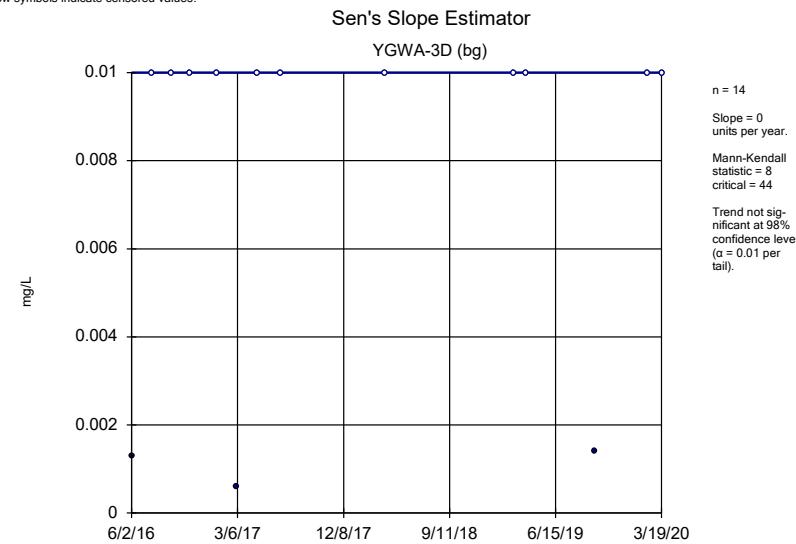
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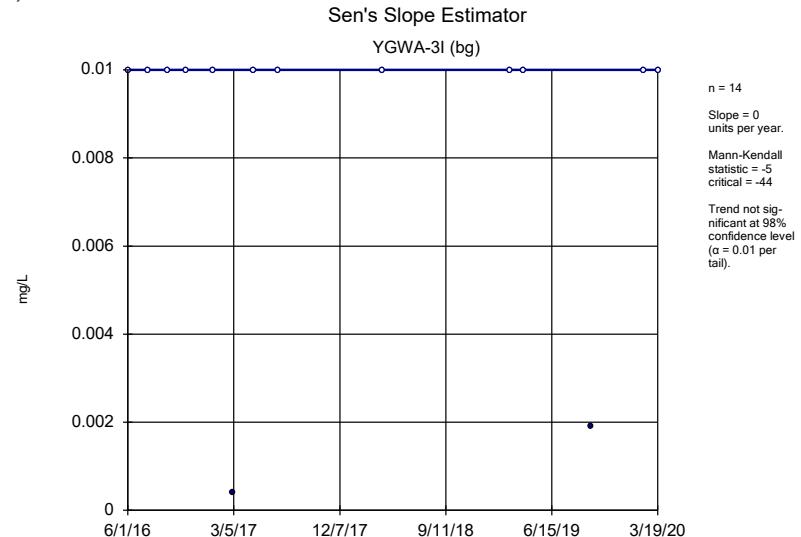
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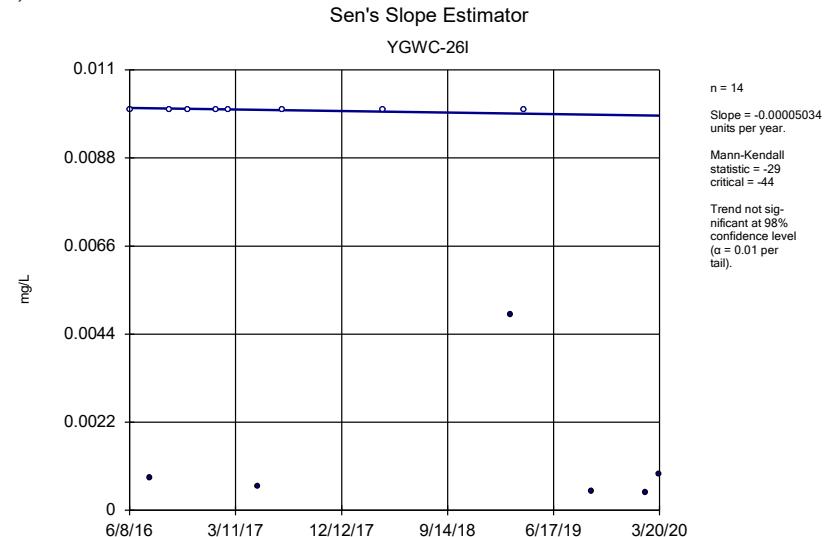
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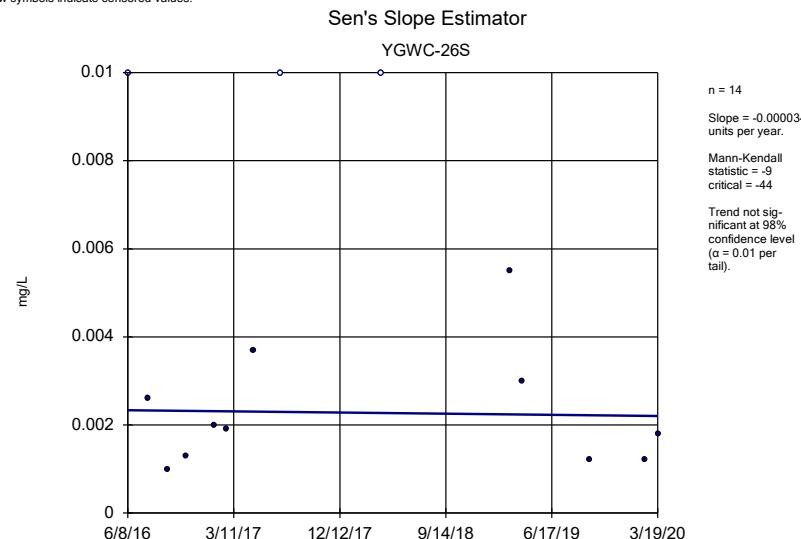
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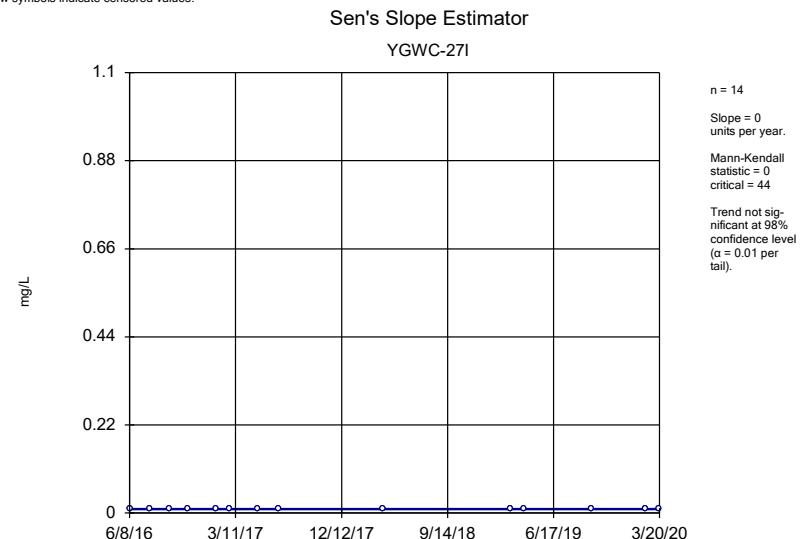
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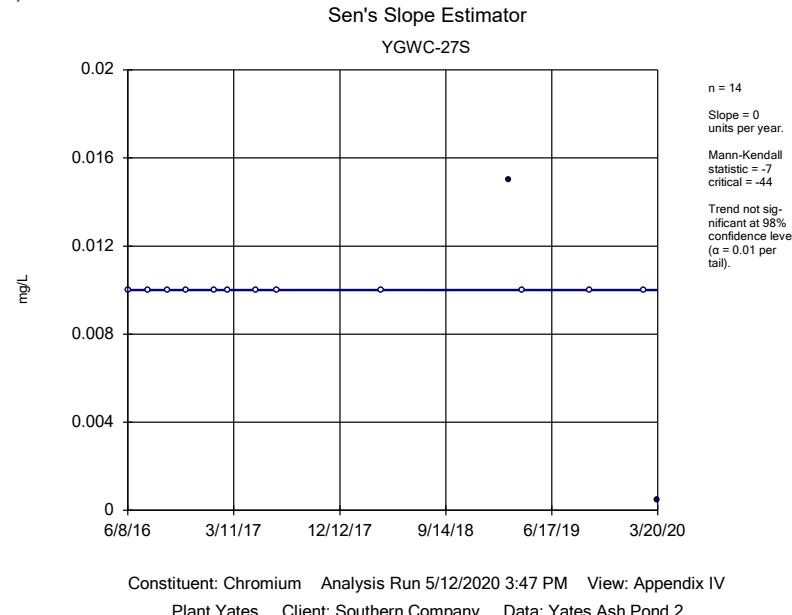
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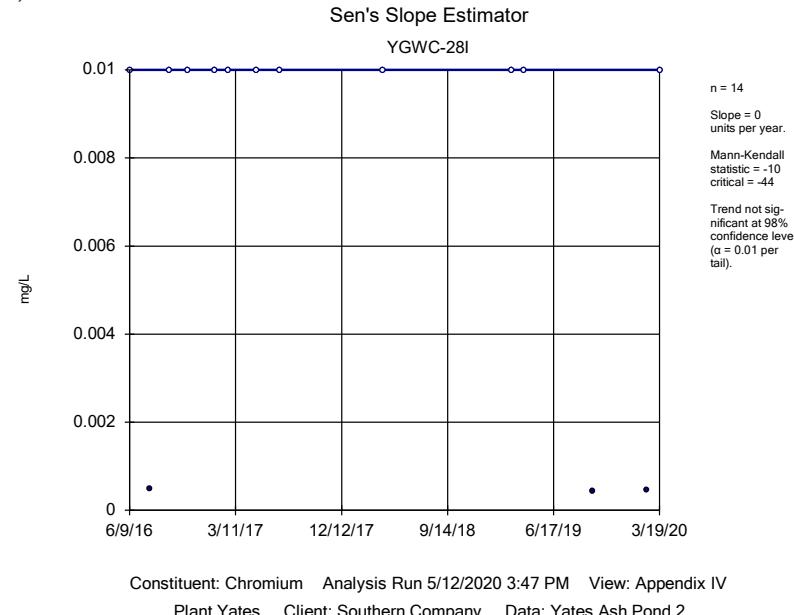


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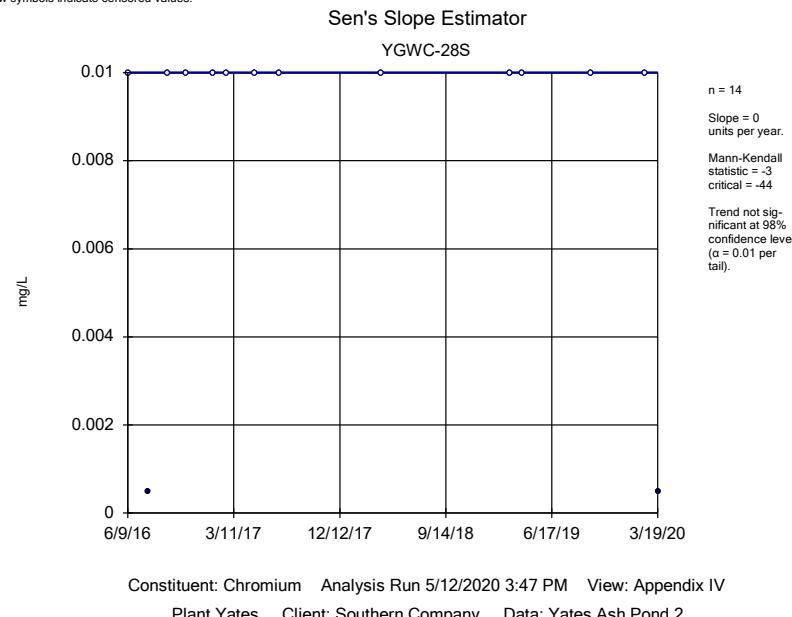
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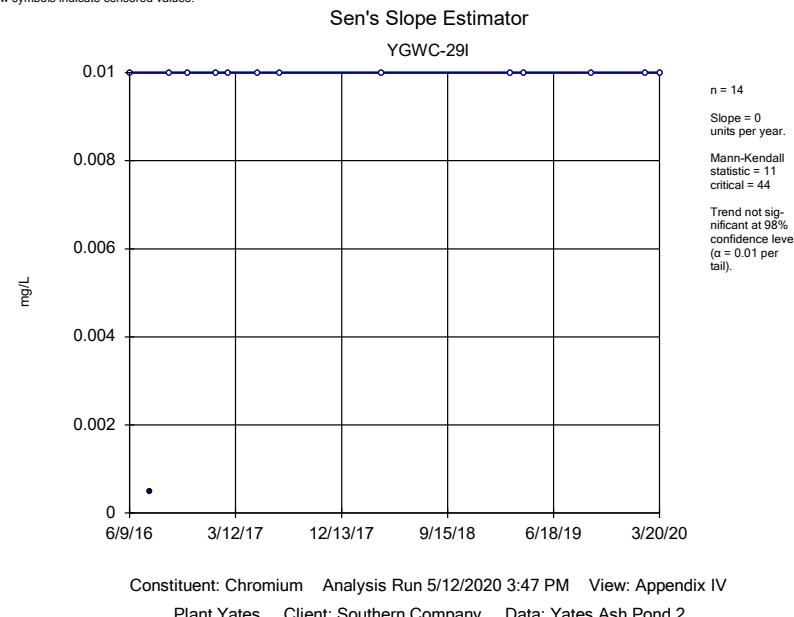
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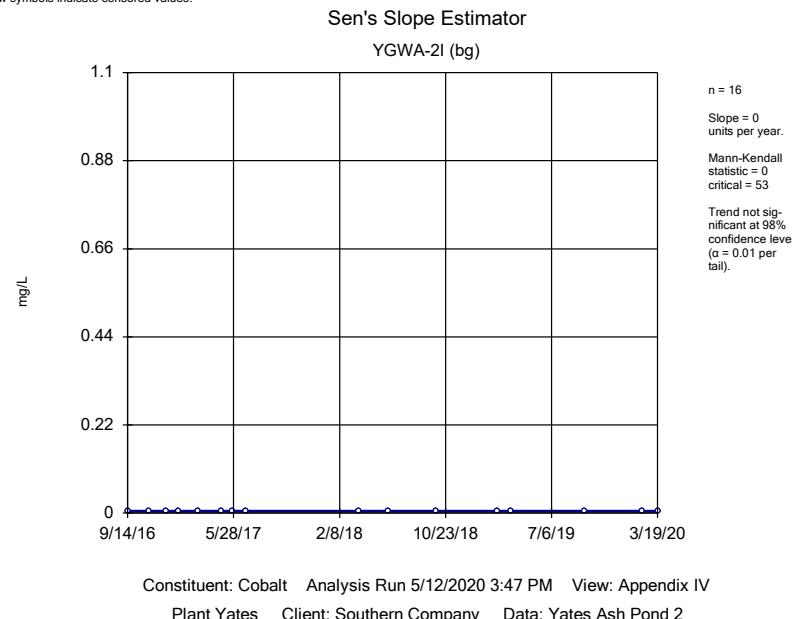
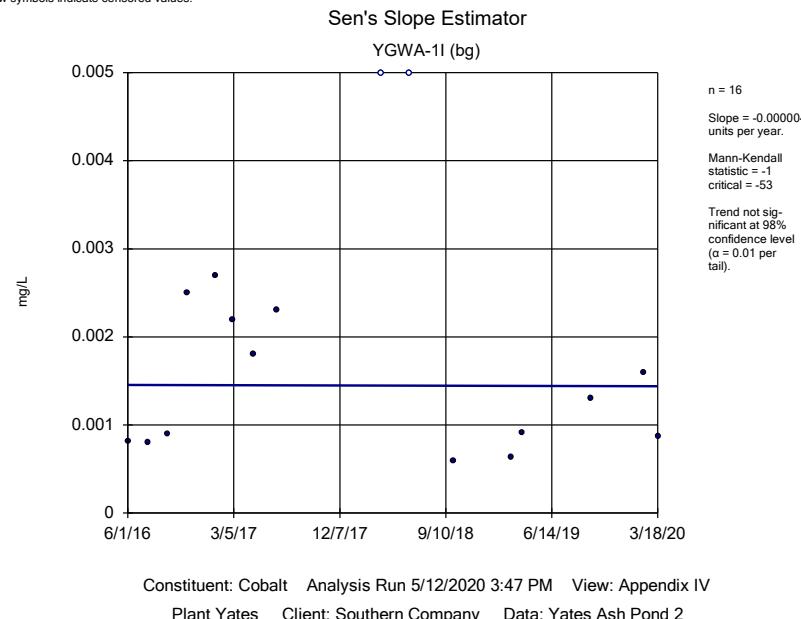
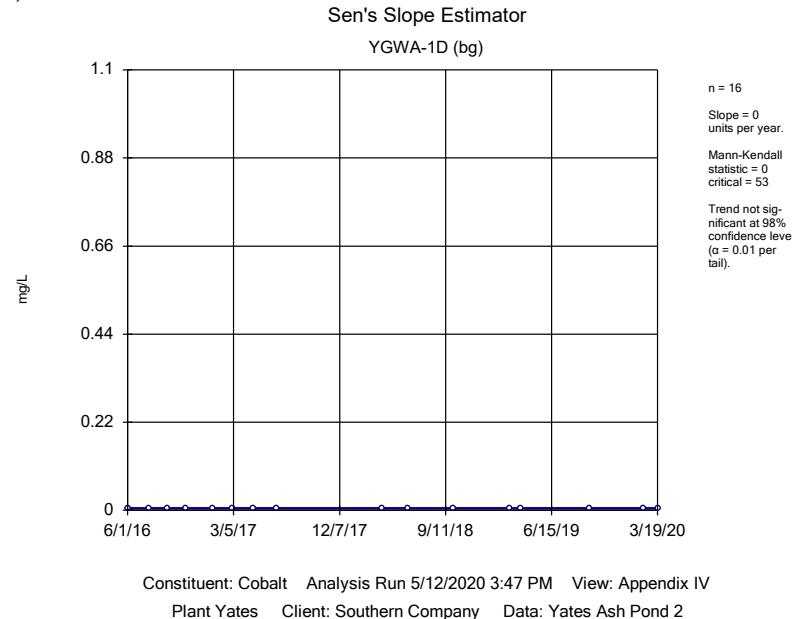
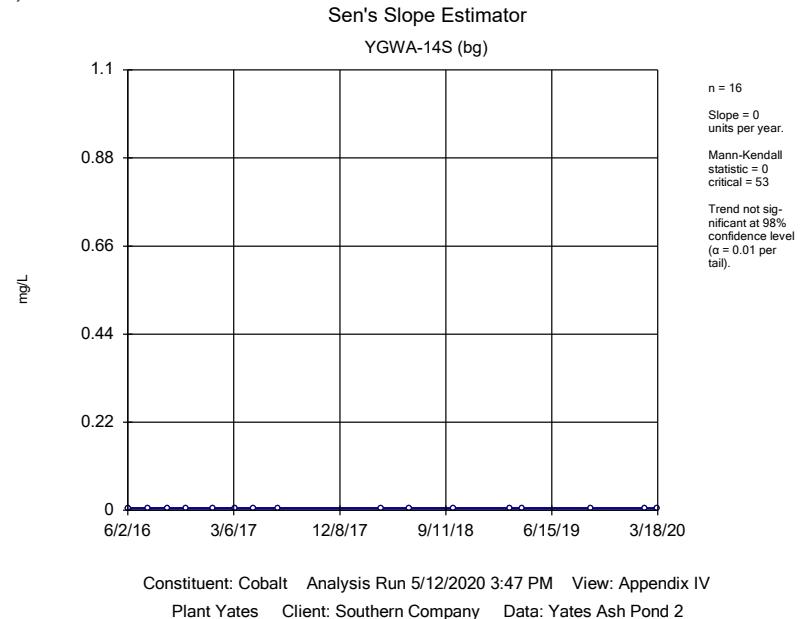


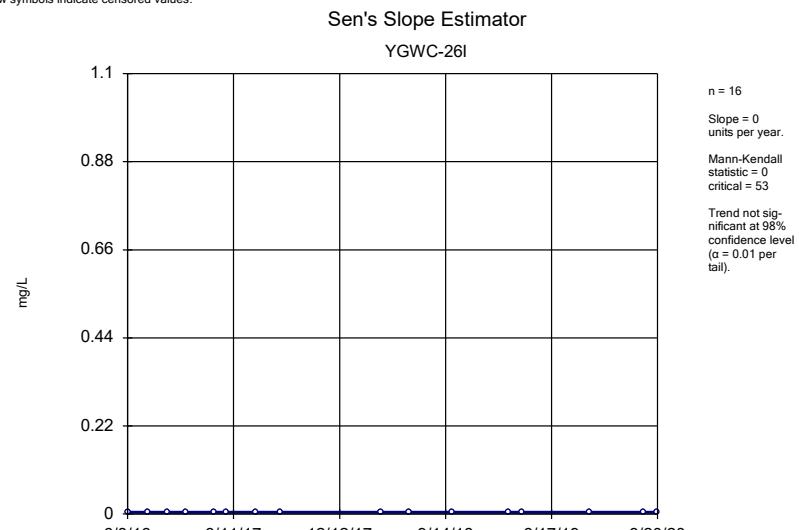
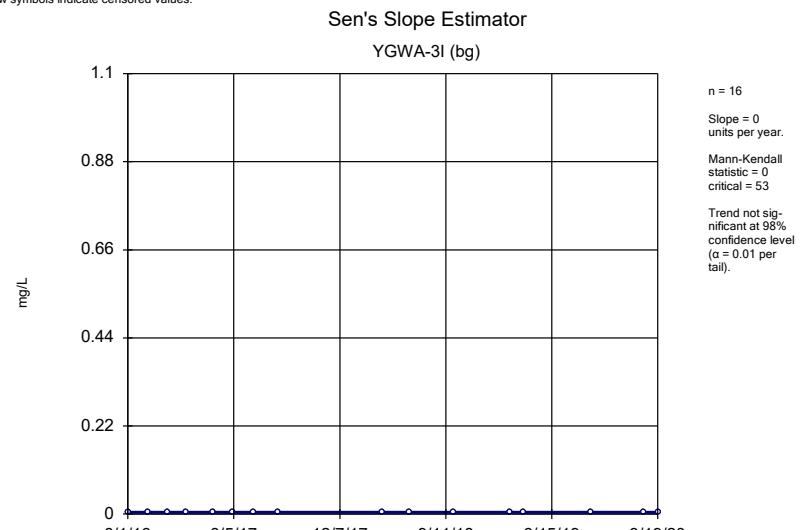
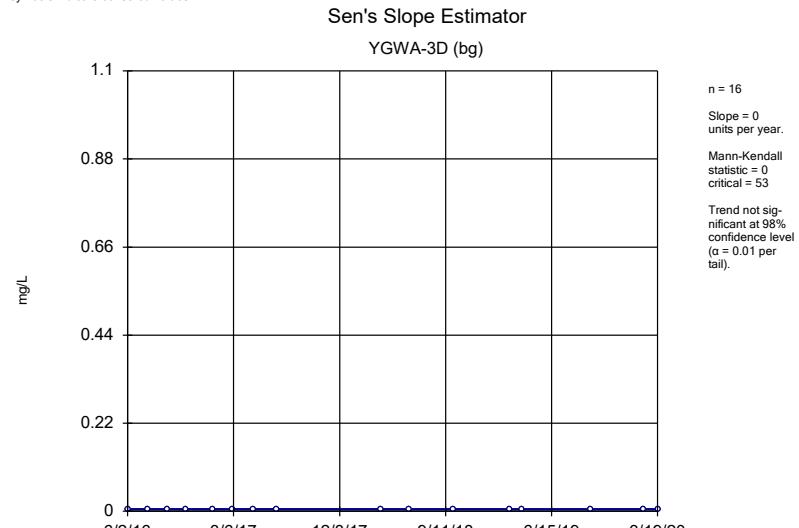
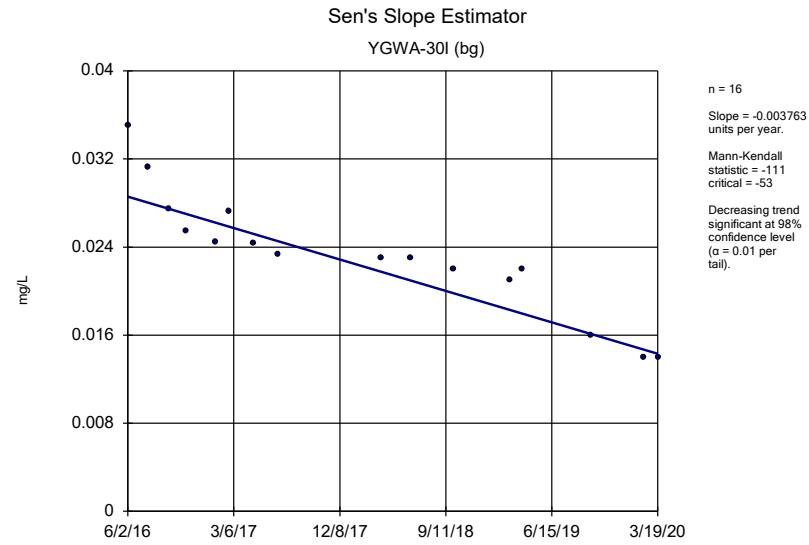
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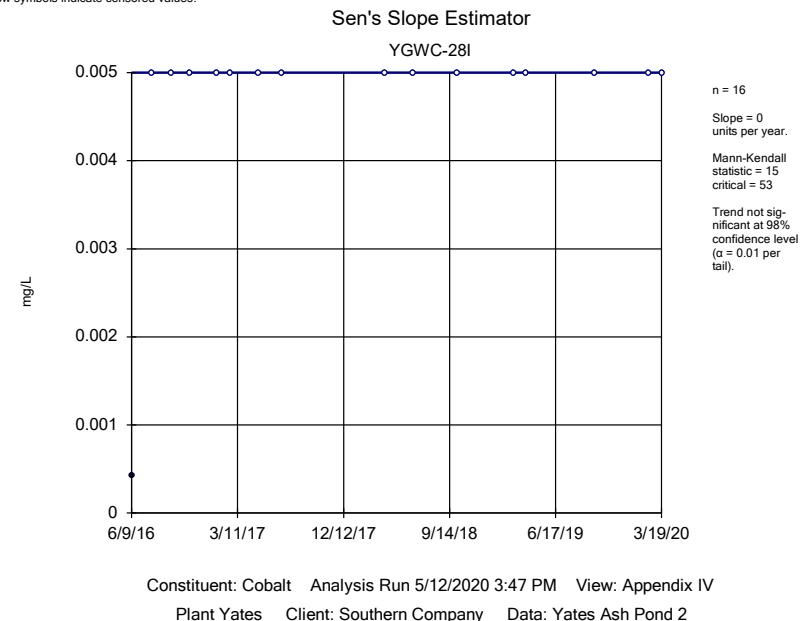
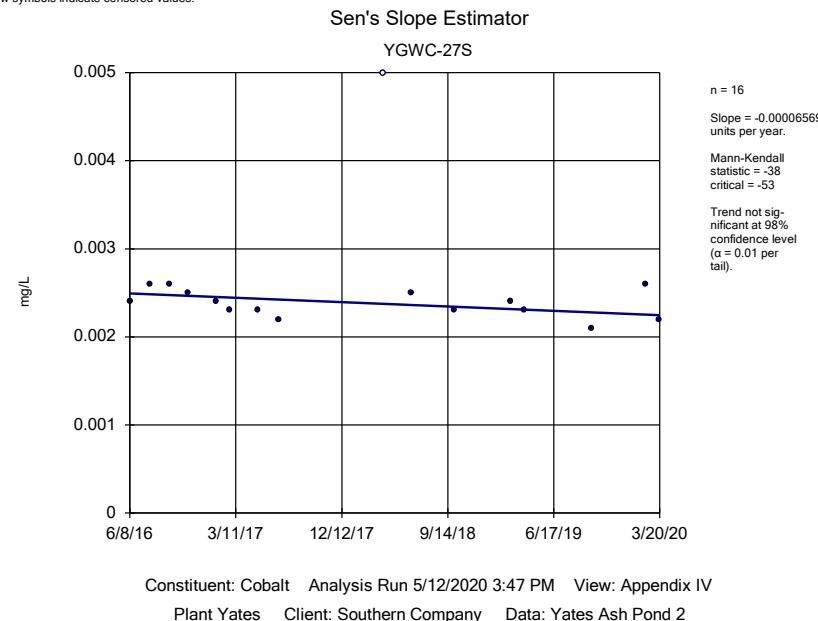
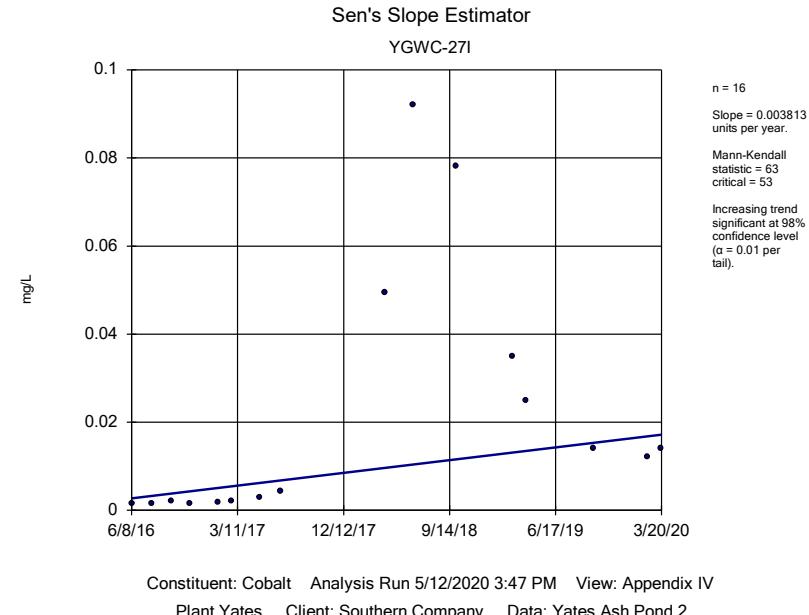
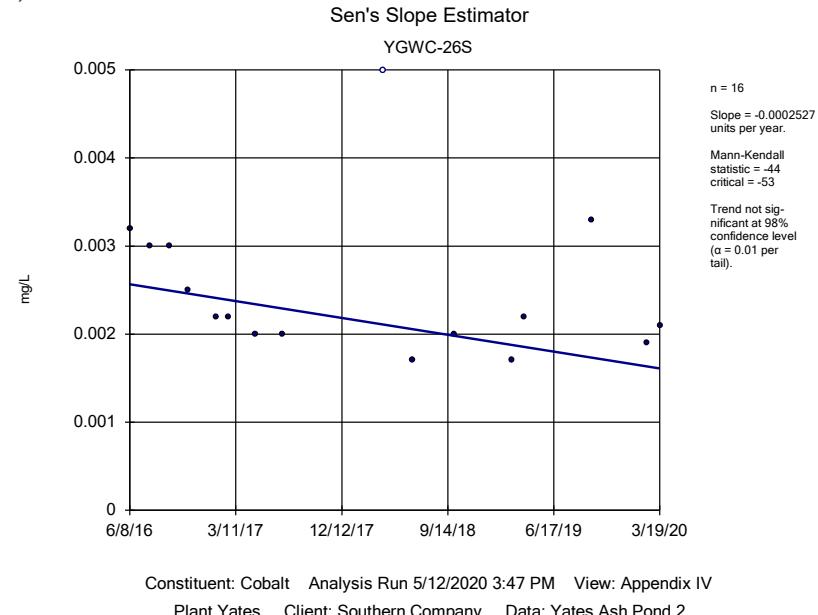


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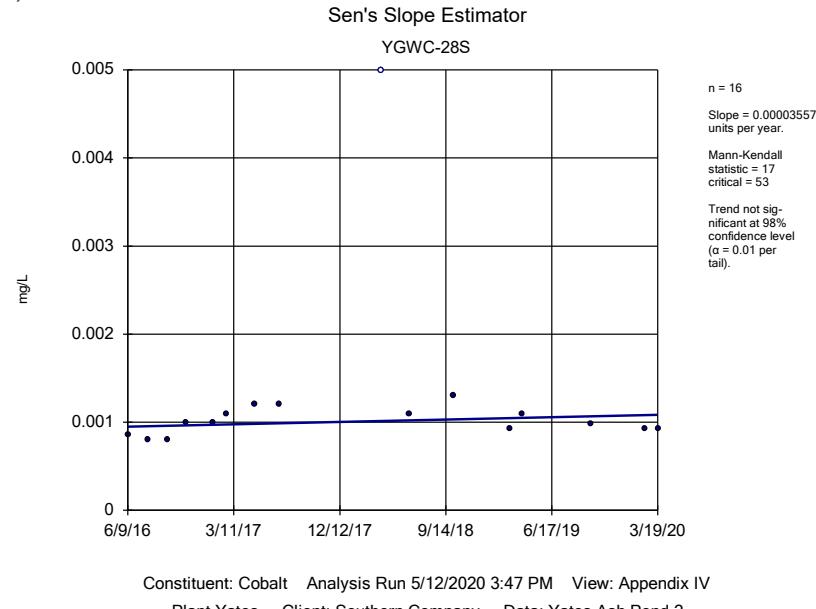




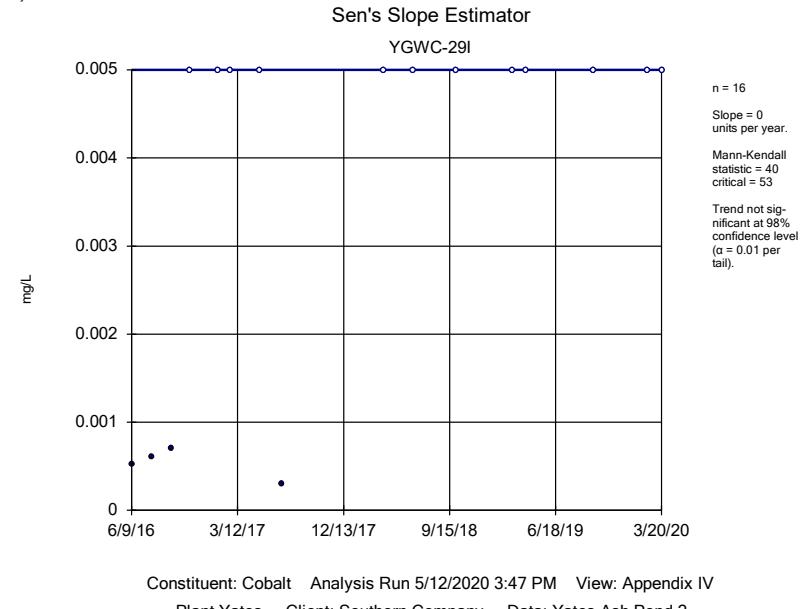




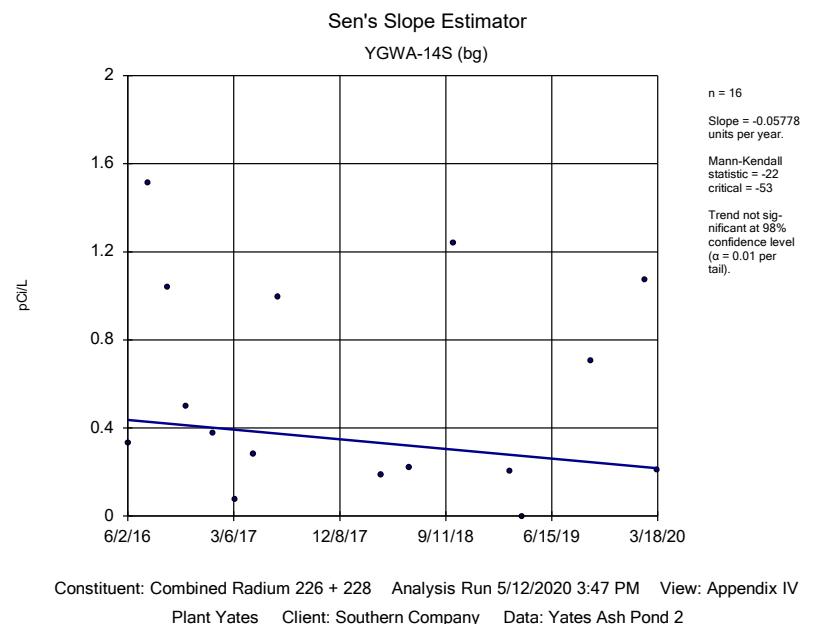
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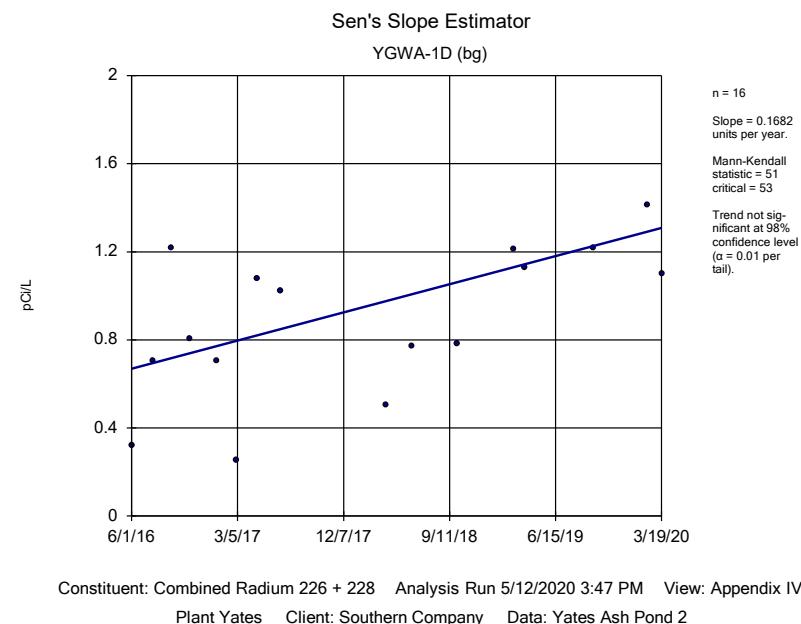
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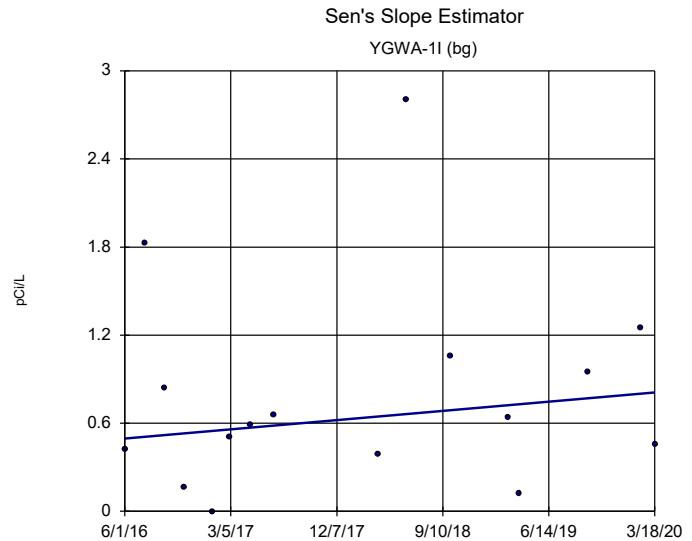


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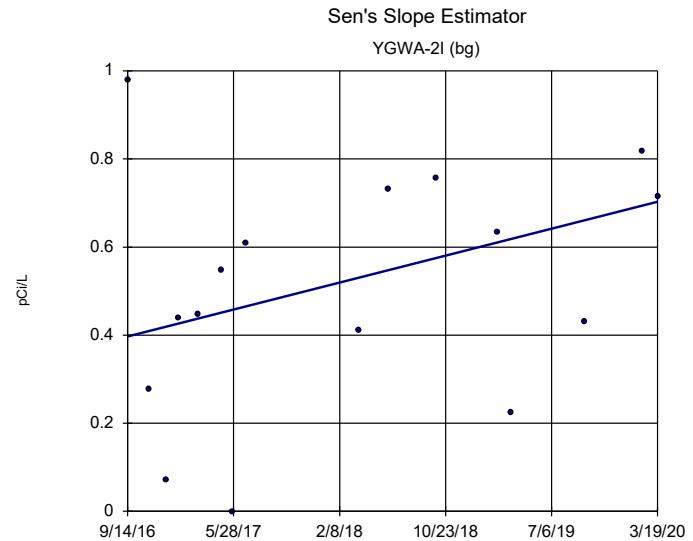


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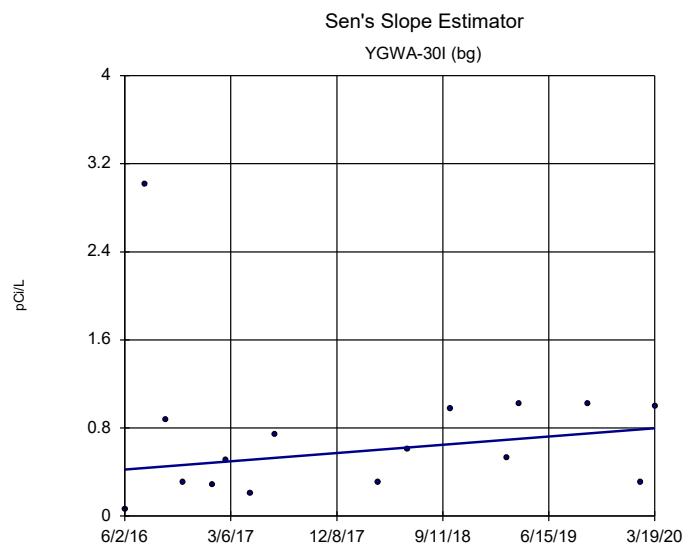




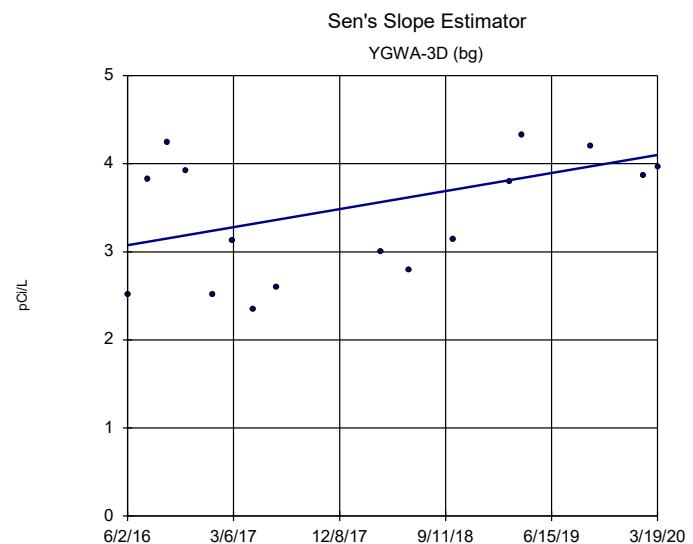
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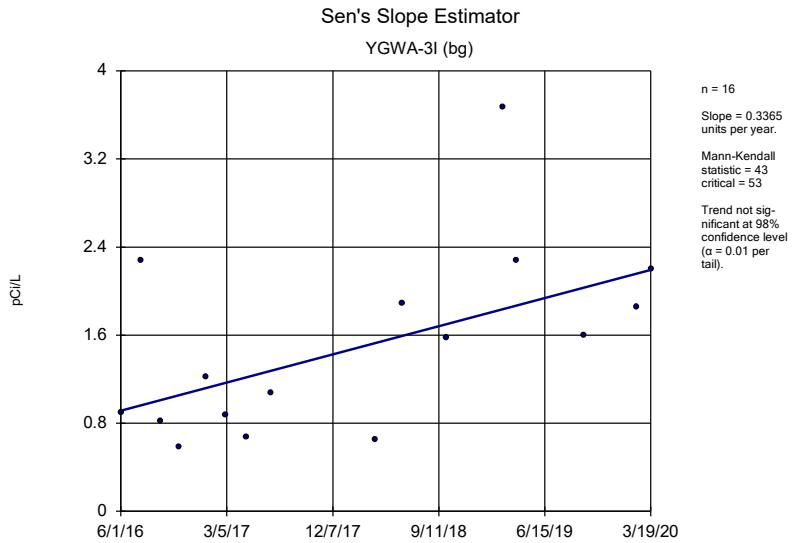
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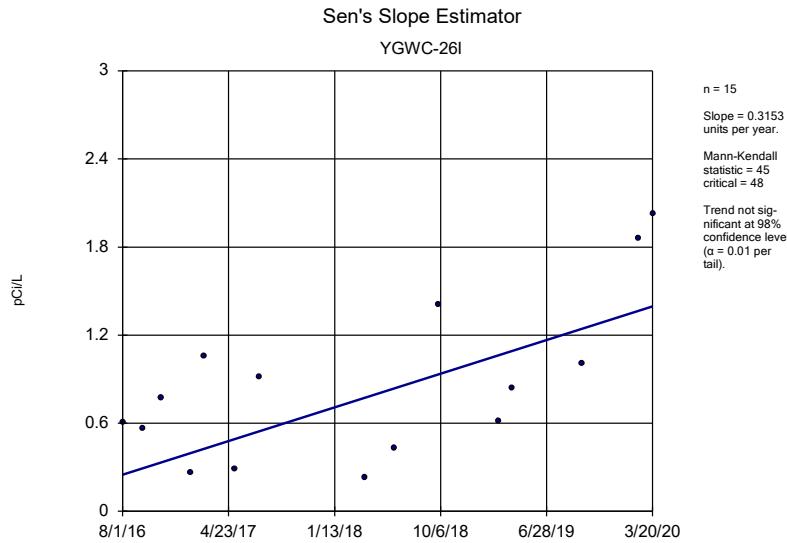
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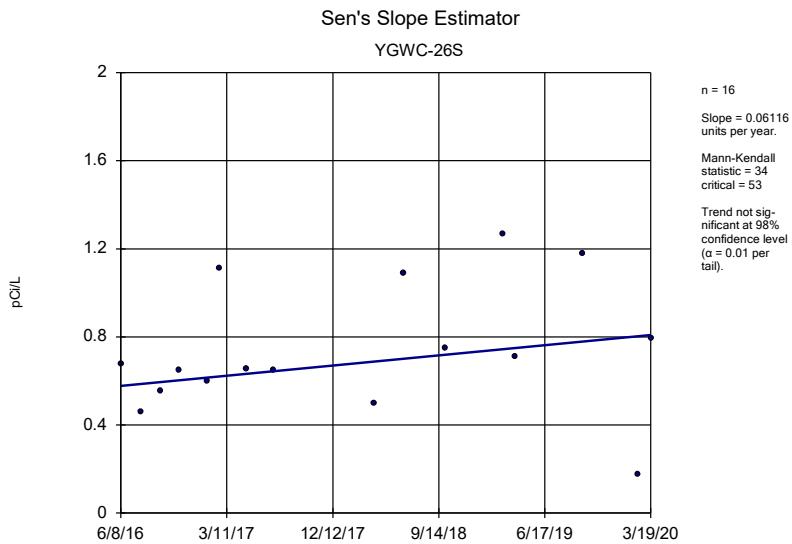
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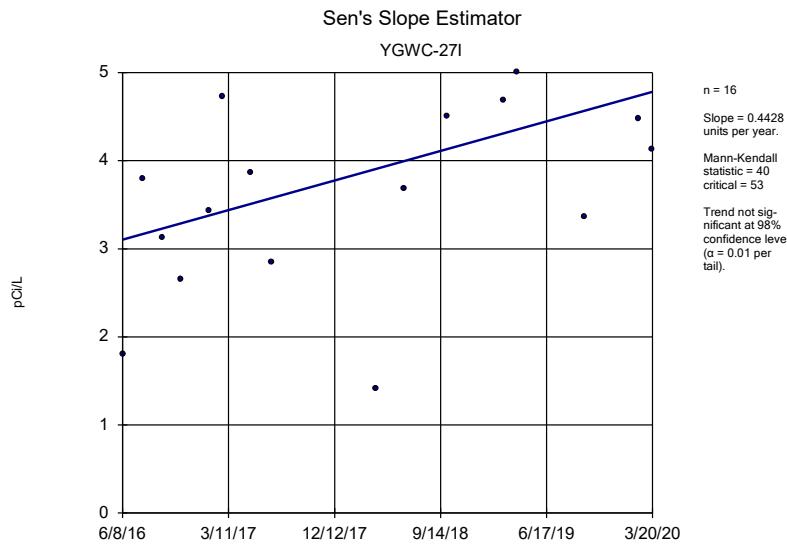
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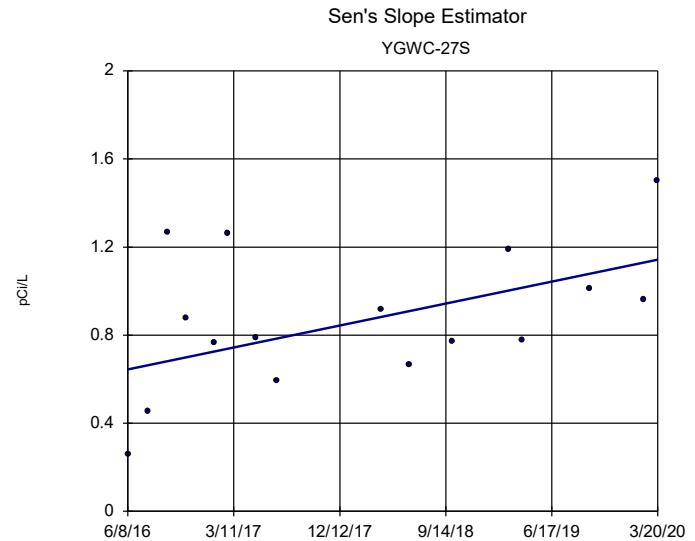
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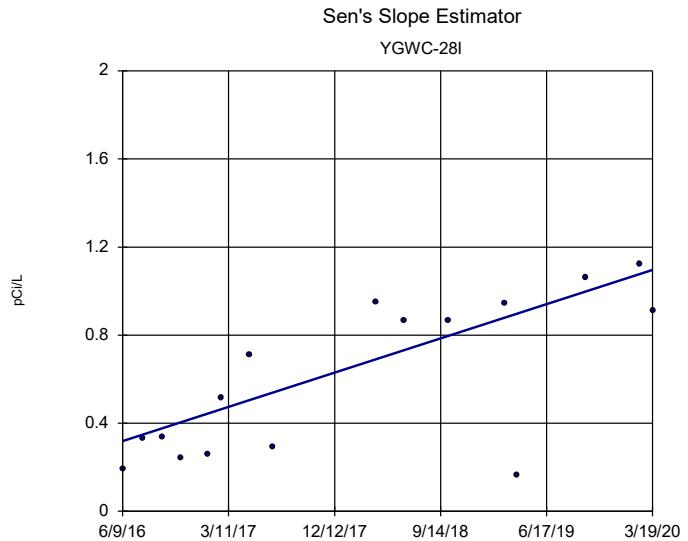
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2



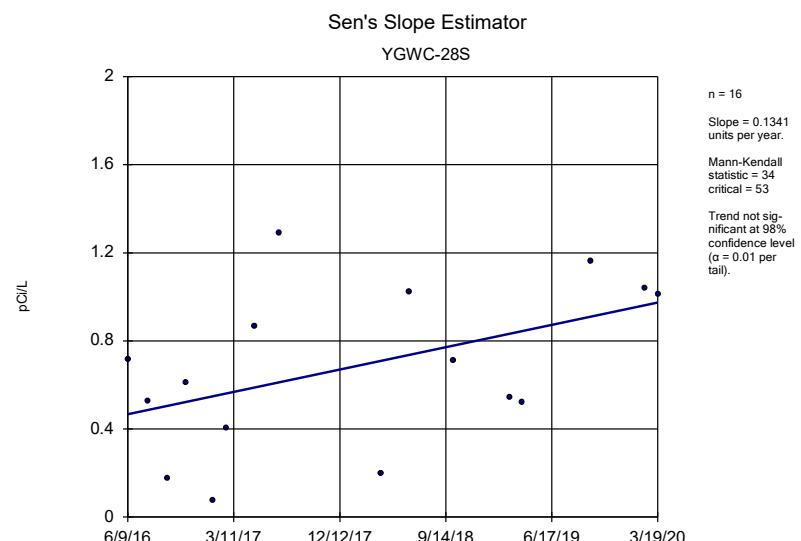
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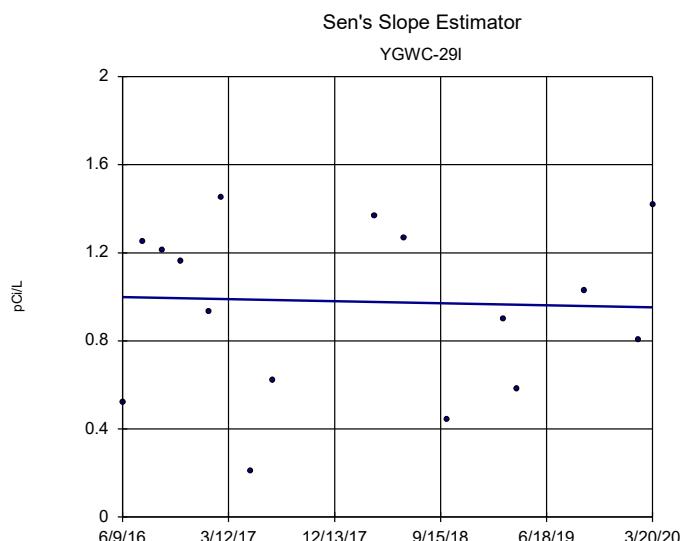
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2



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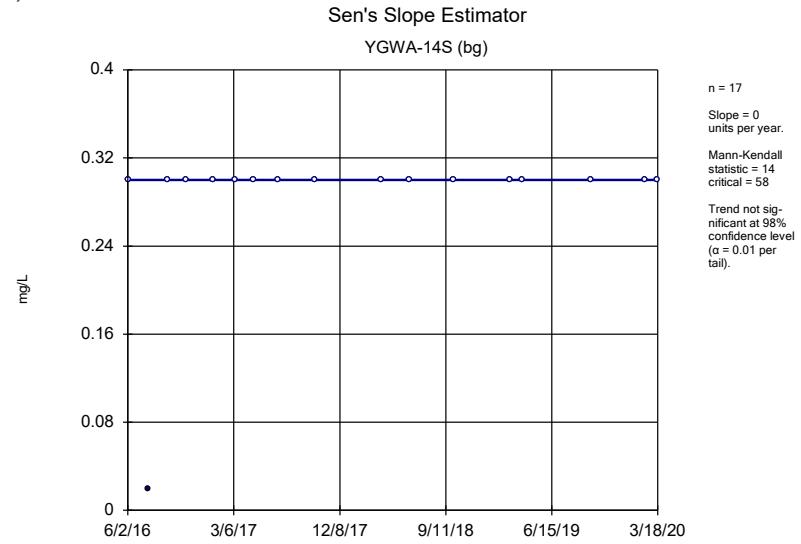


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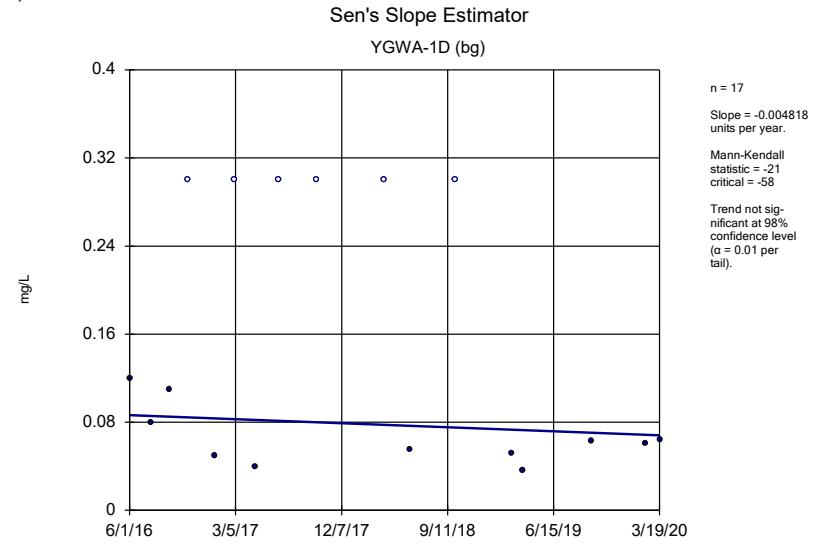


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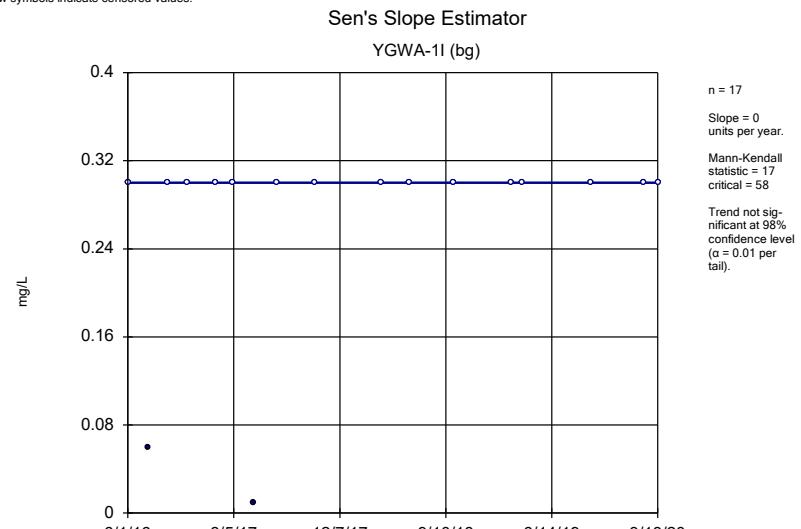
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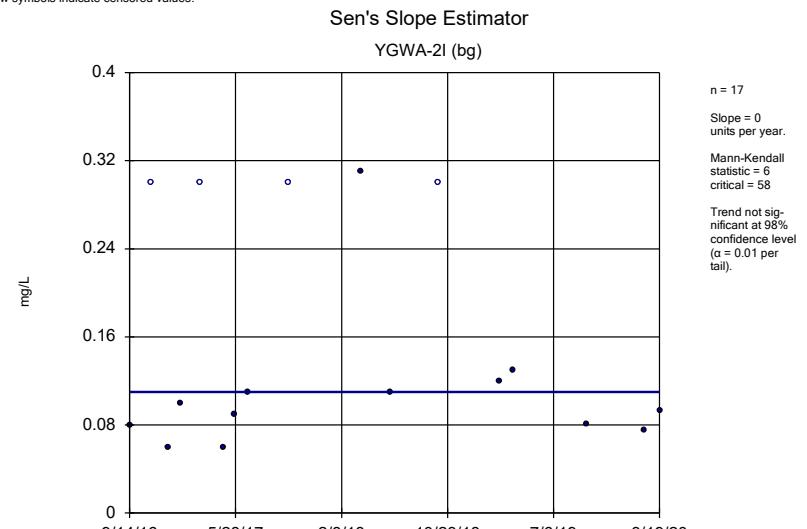
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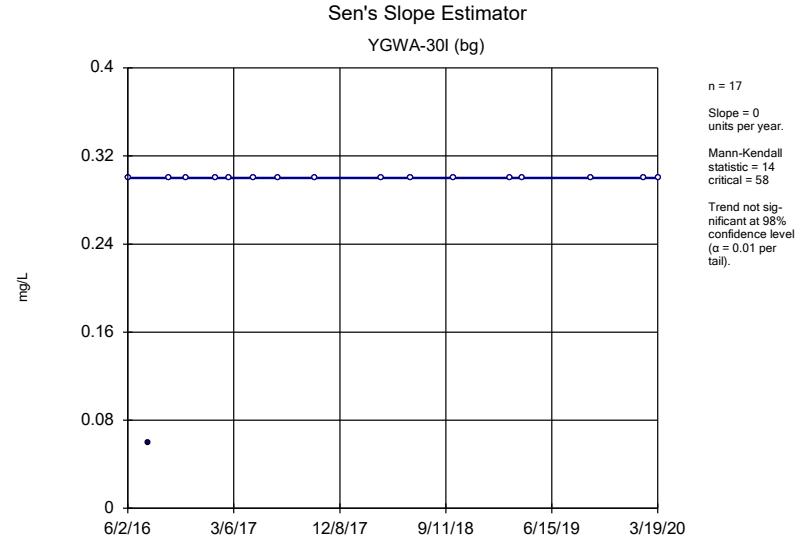
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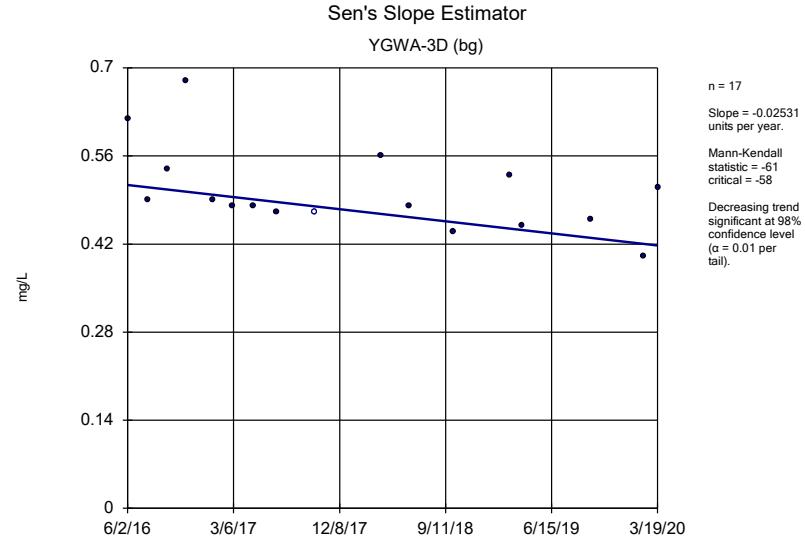
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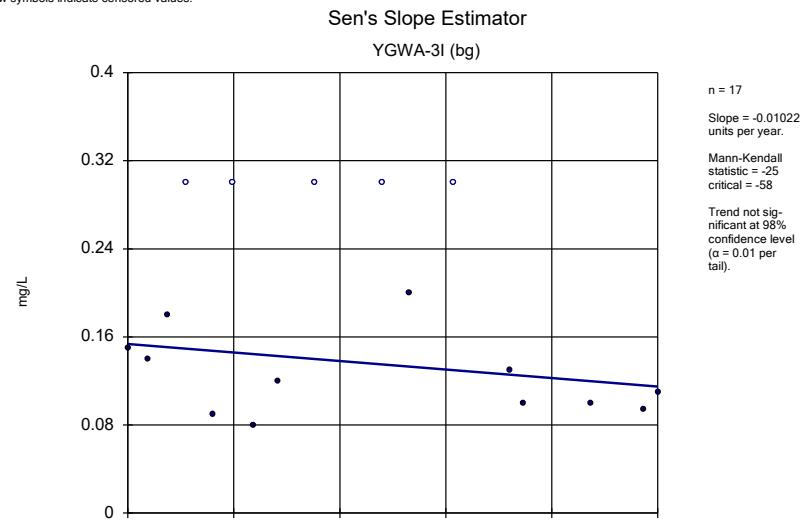
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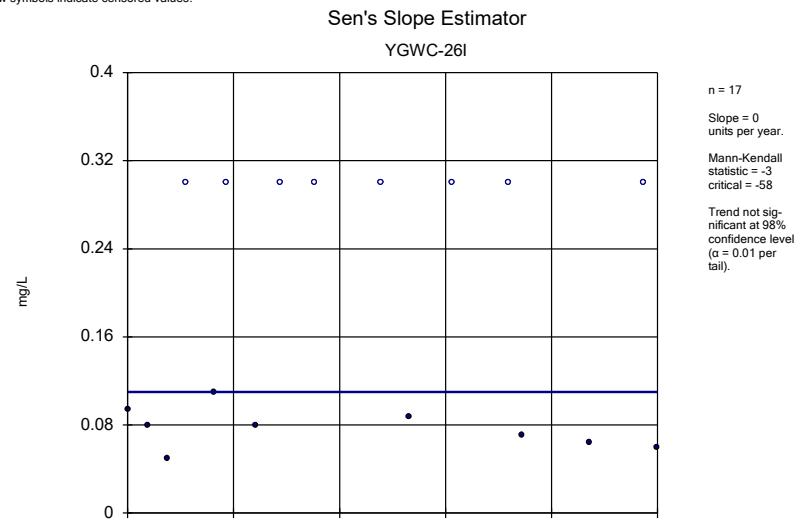
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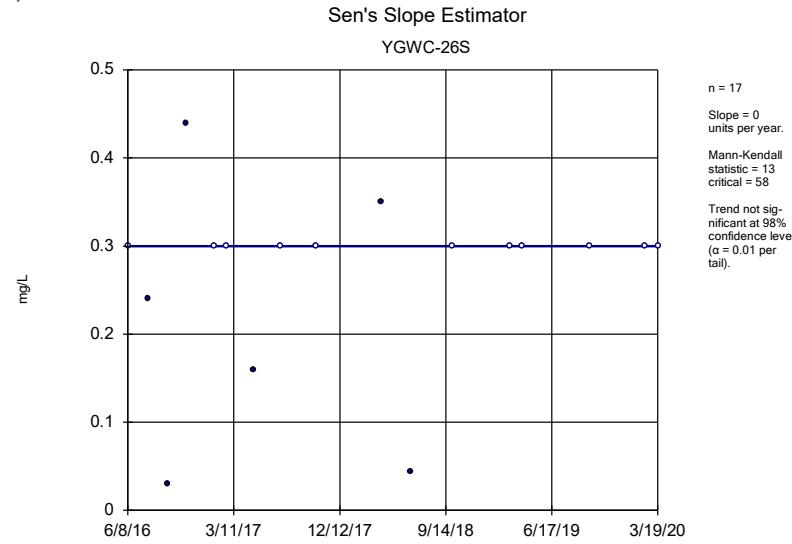
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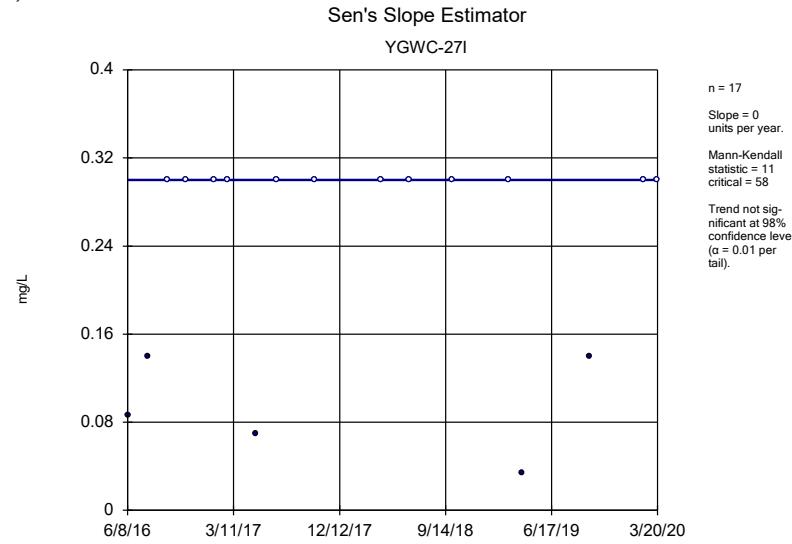
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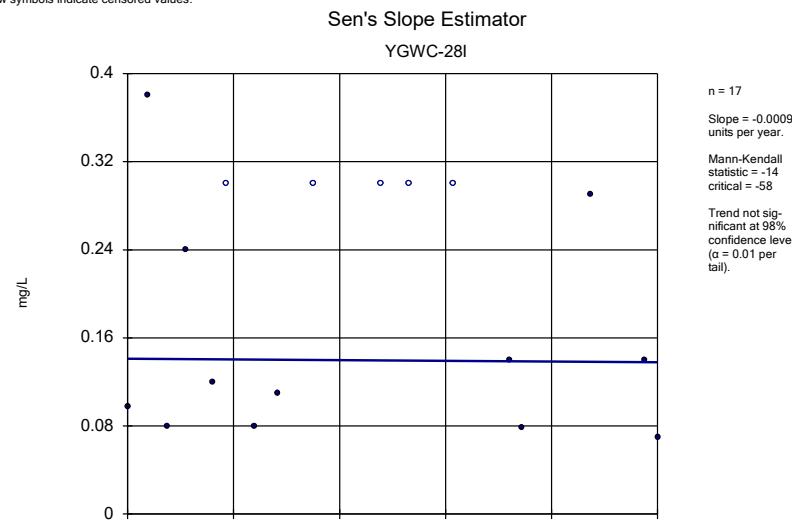
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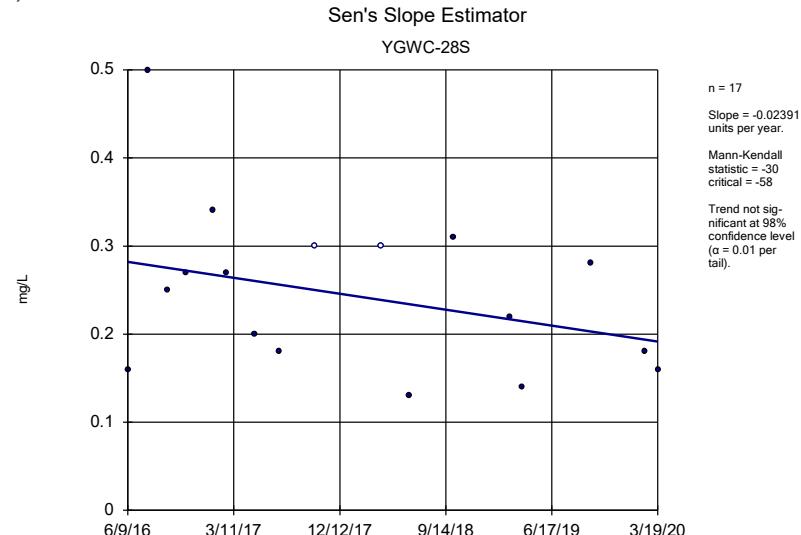
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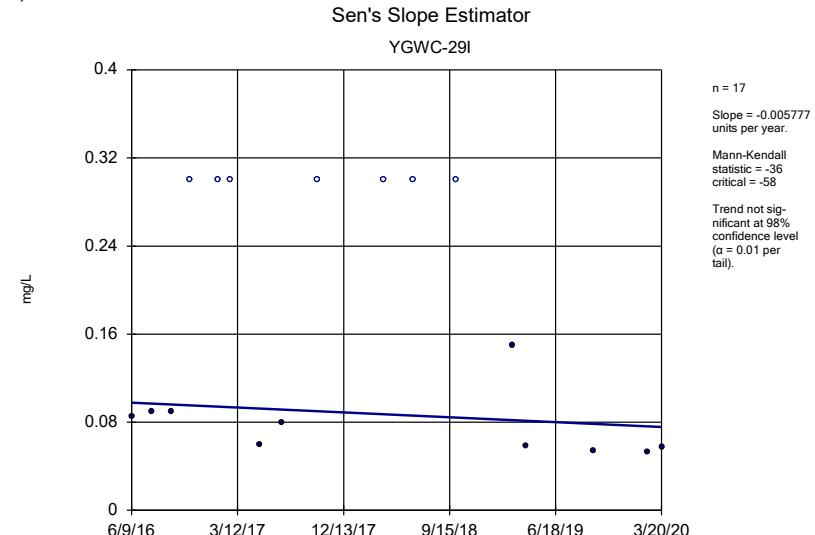
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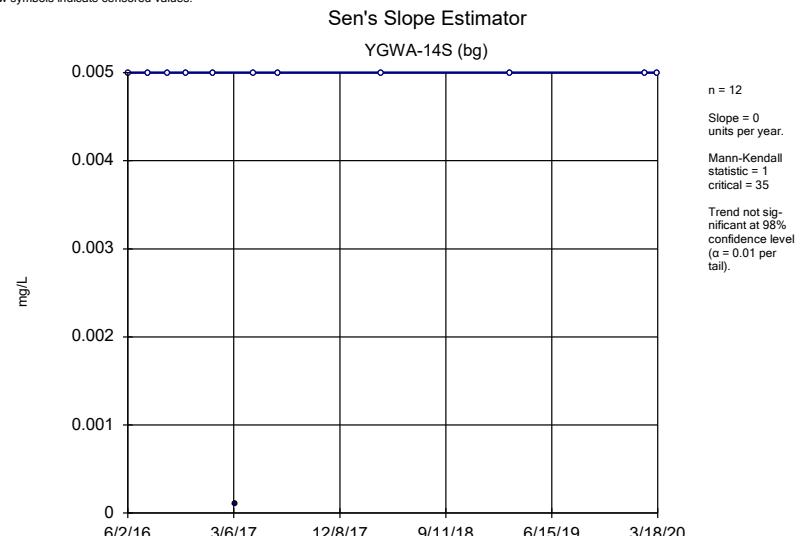
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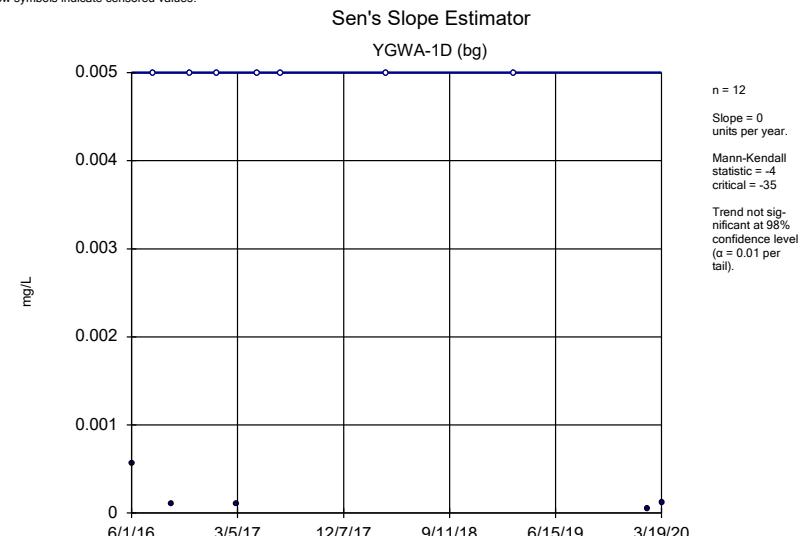
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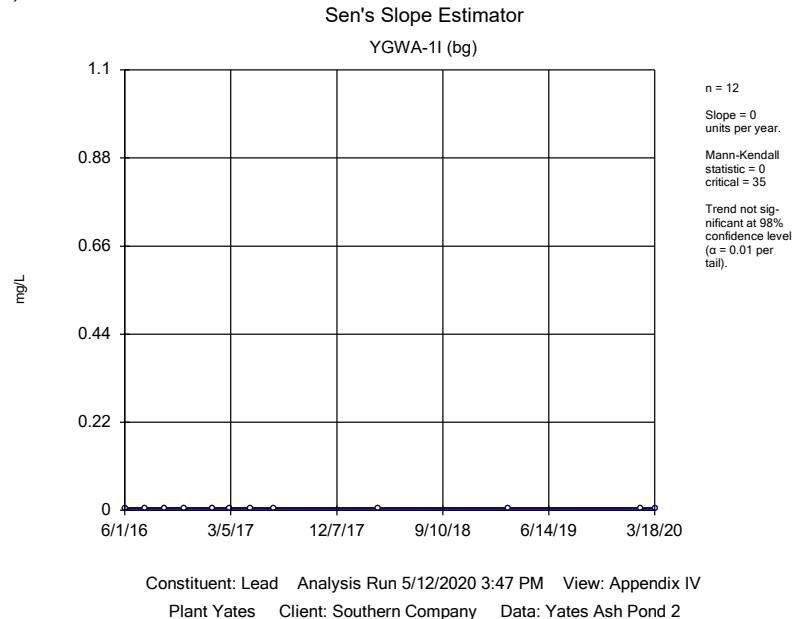
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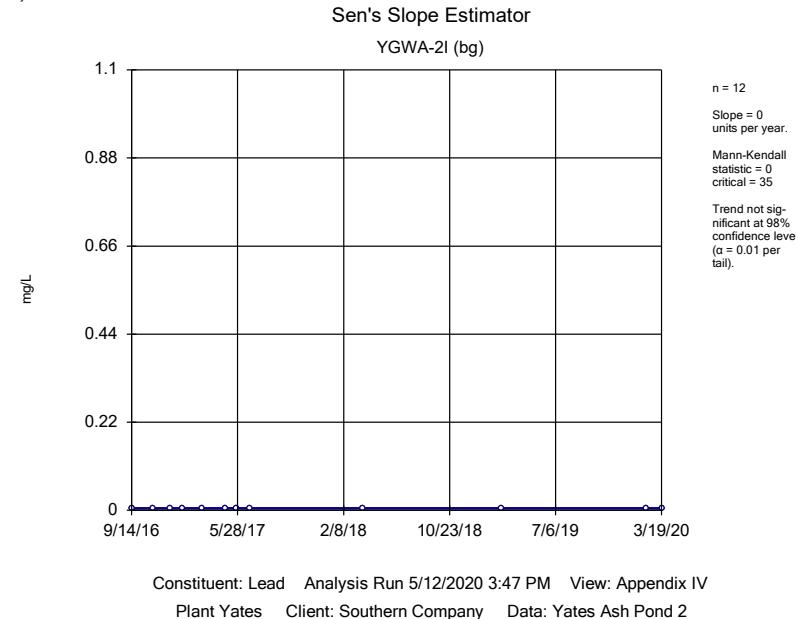
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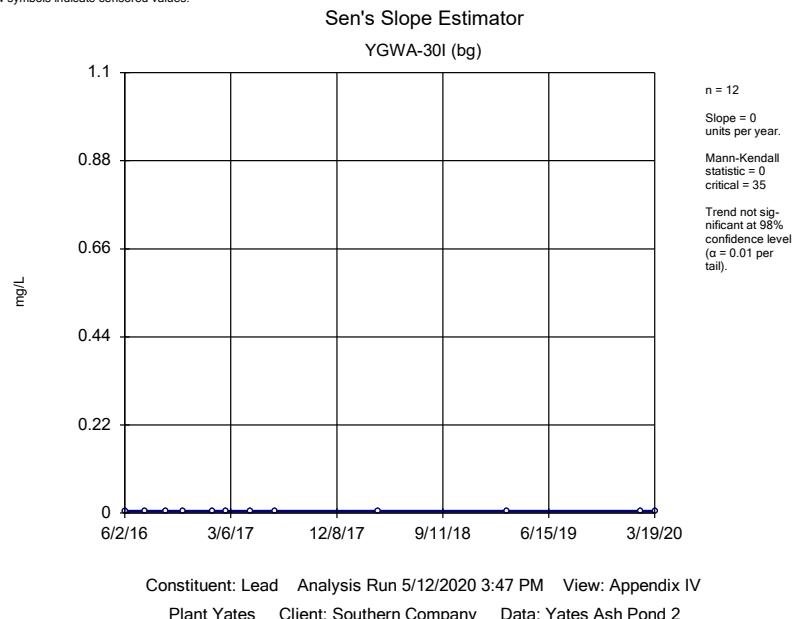
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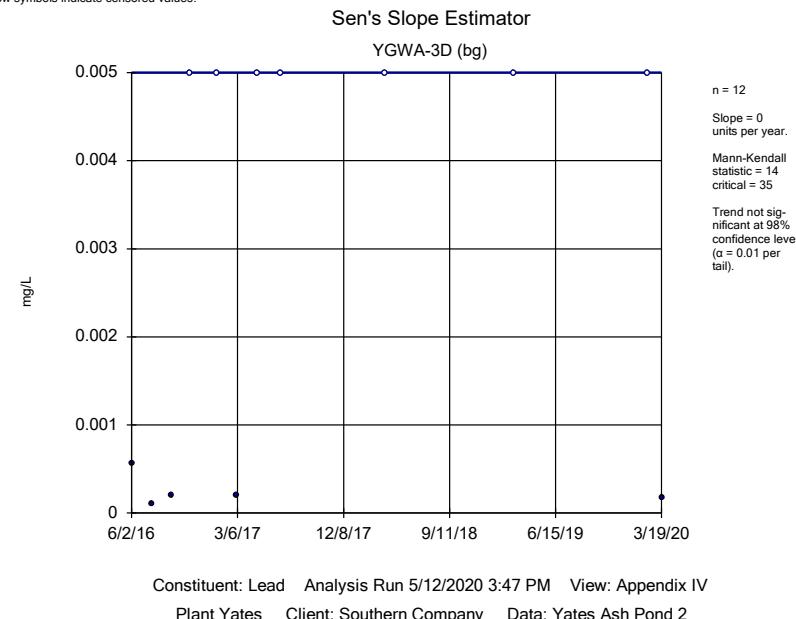
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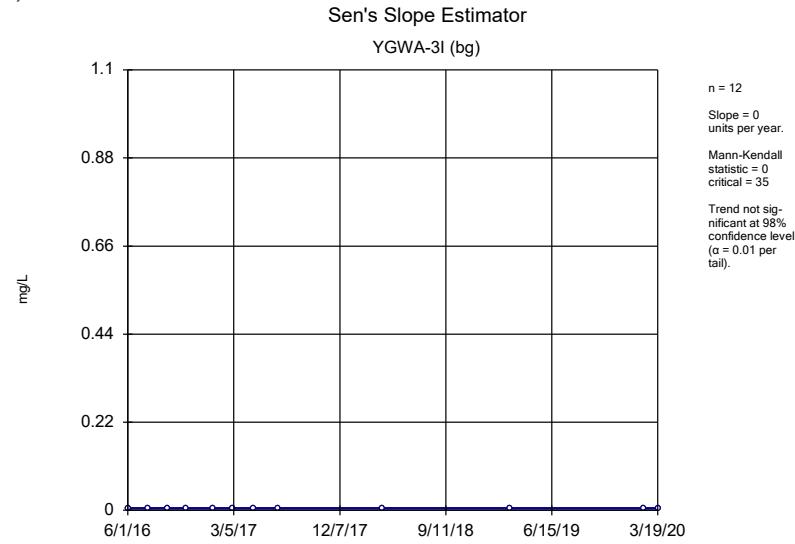
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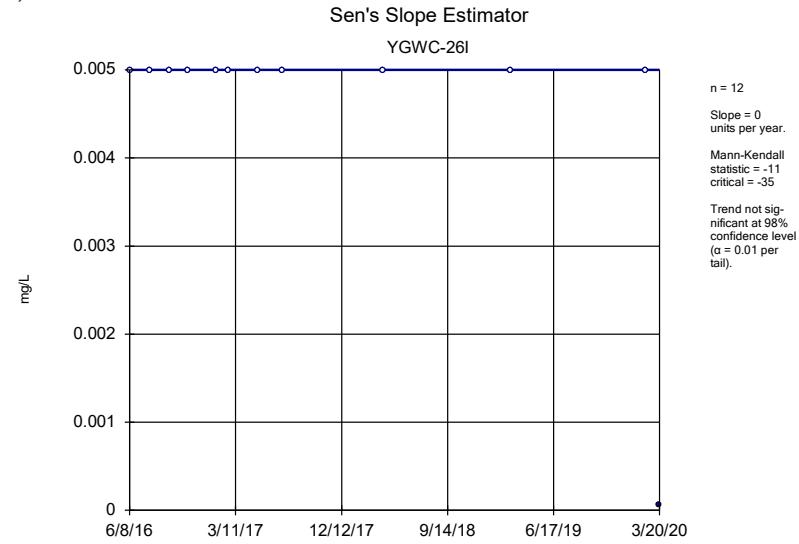


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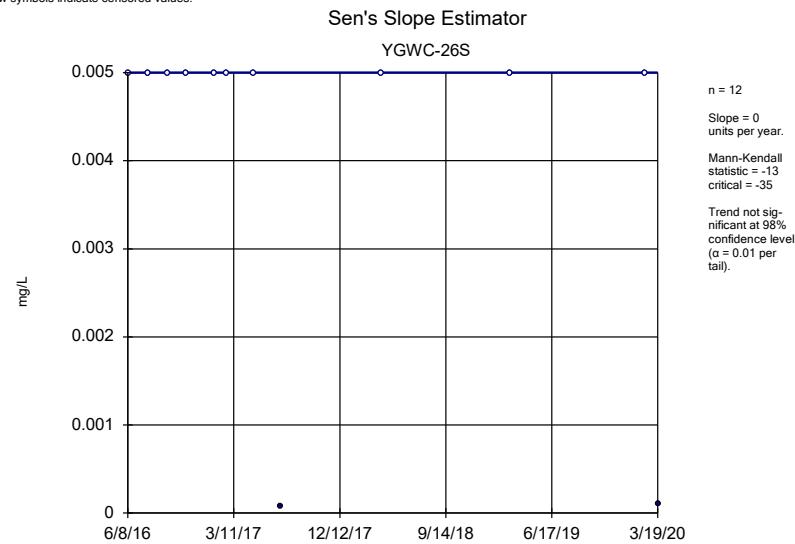
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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Constituent: Lead Analysis Run 5/12/2020 3:47 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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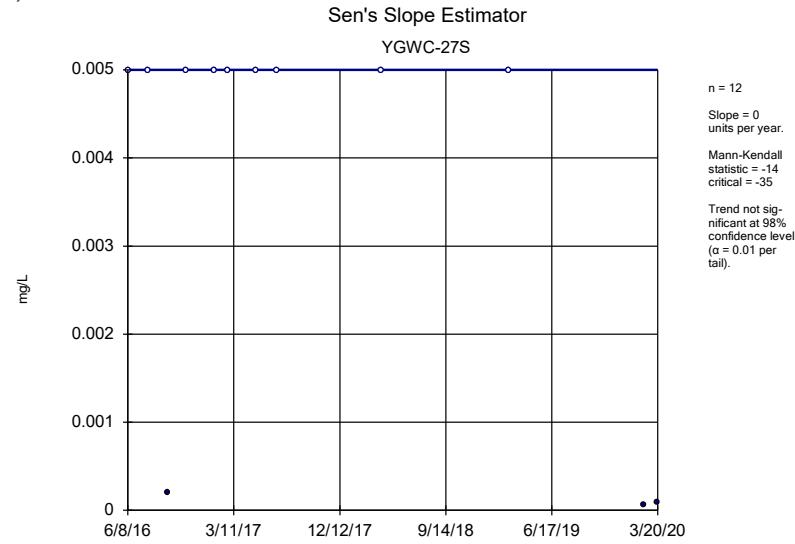
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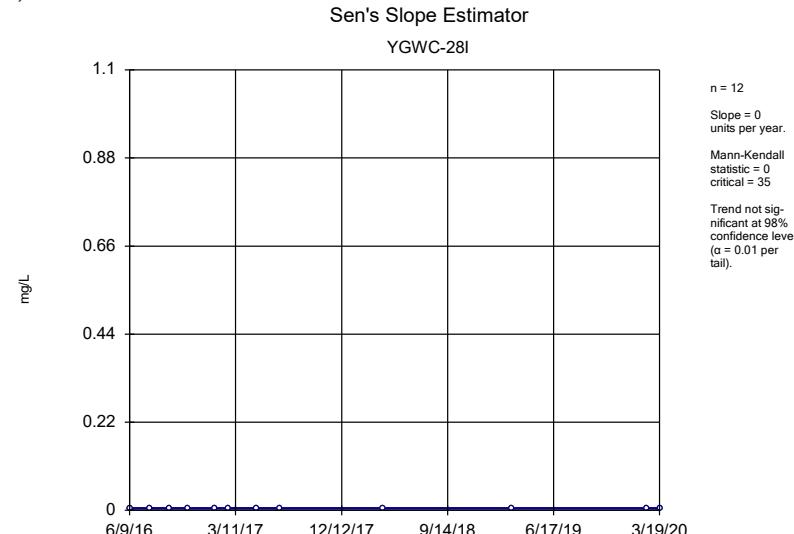
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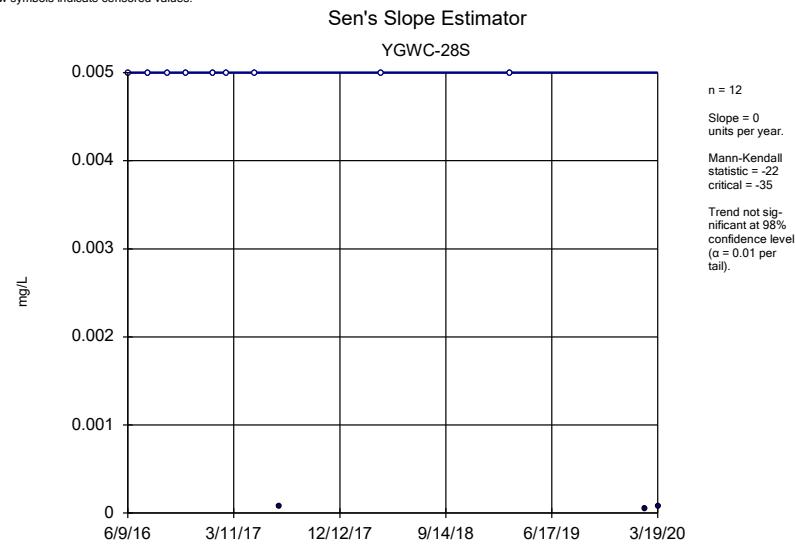
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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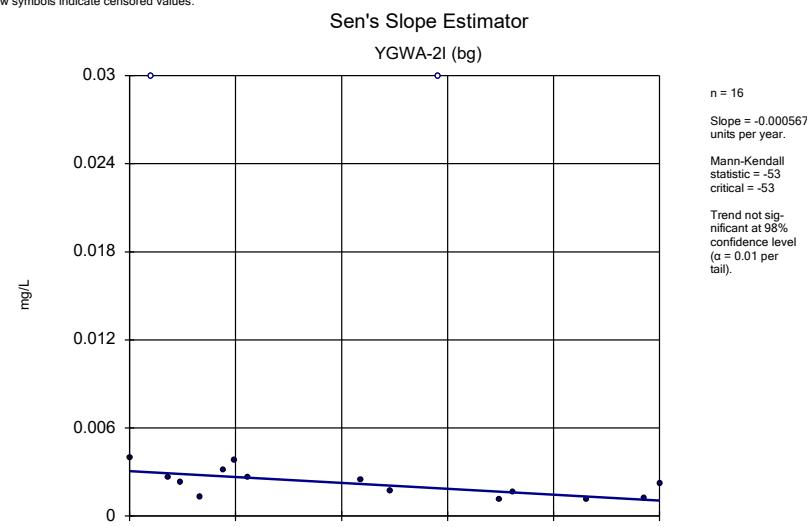
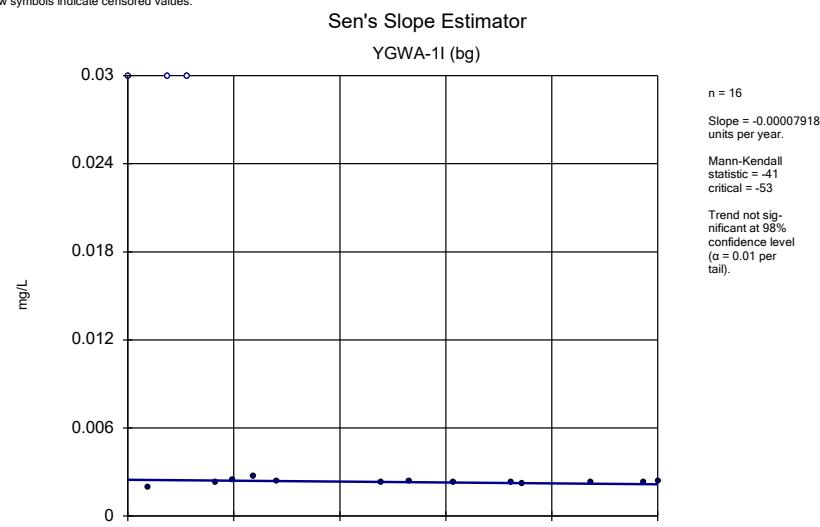
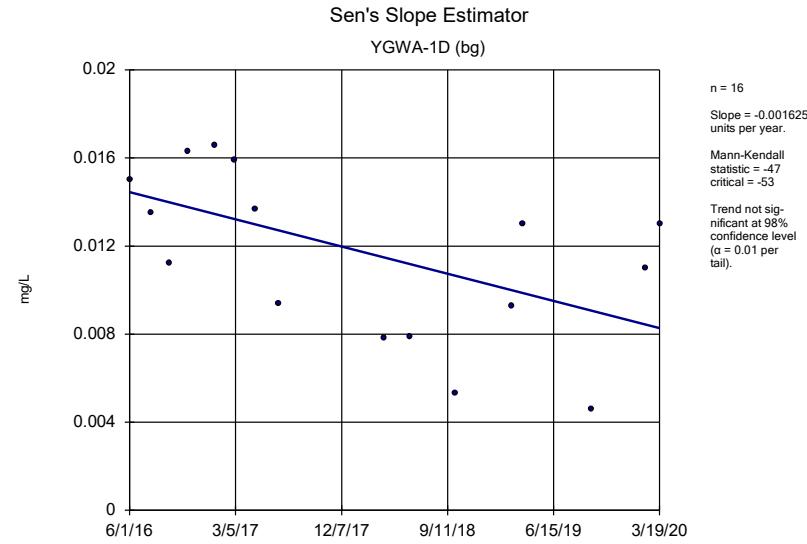
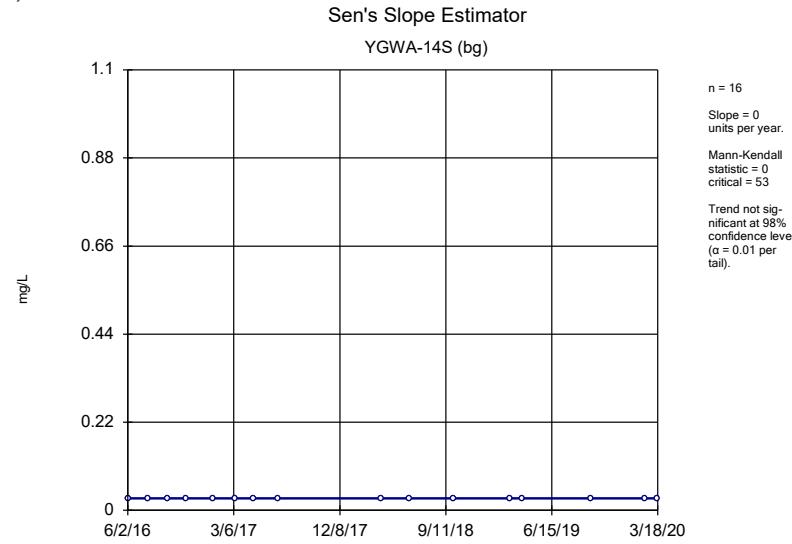


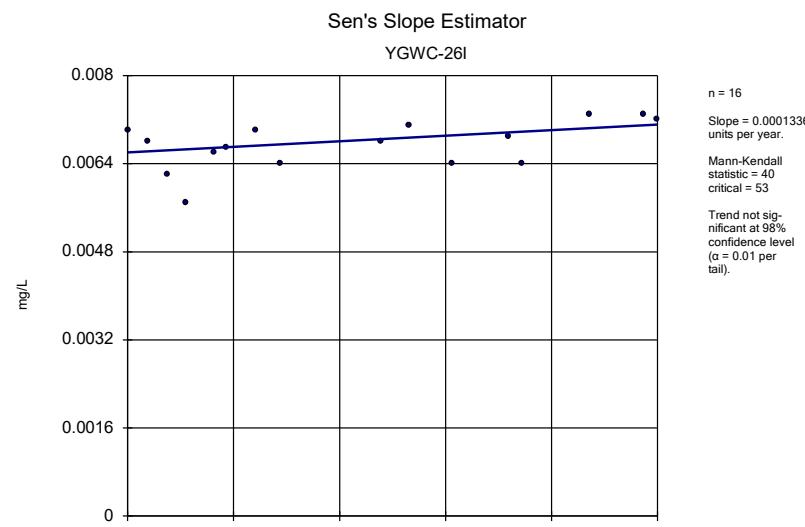
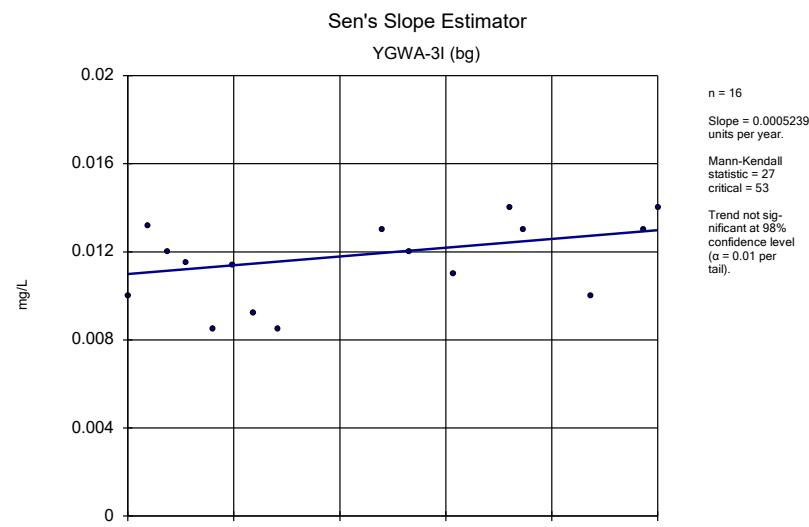
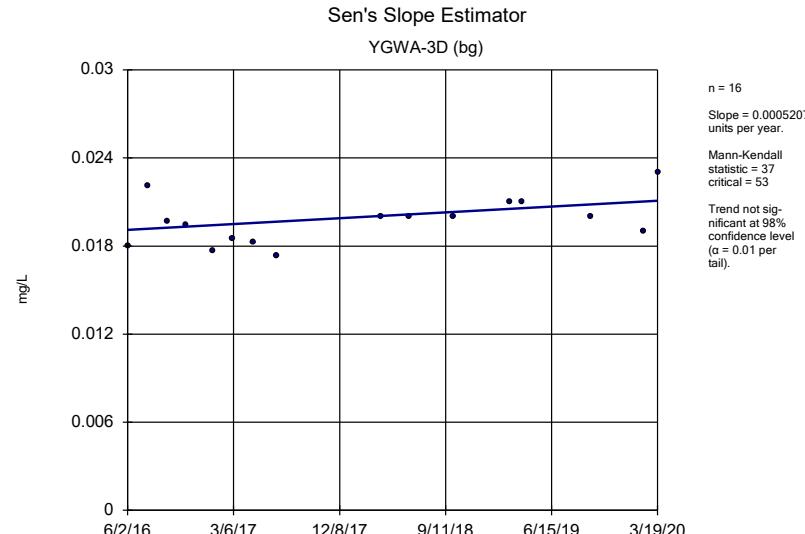
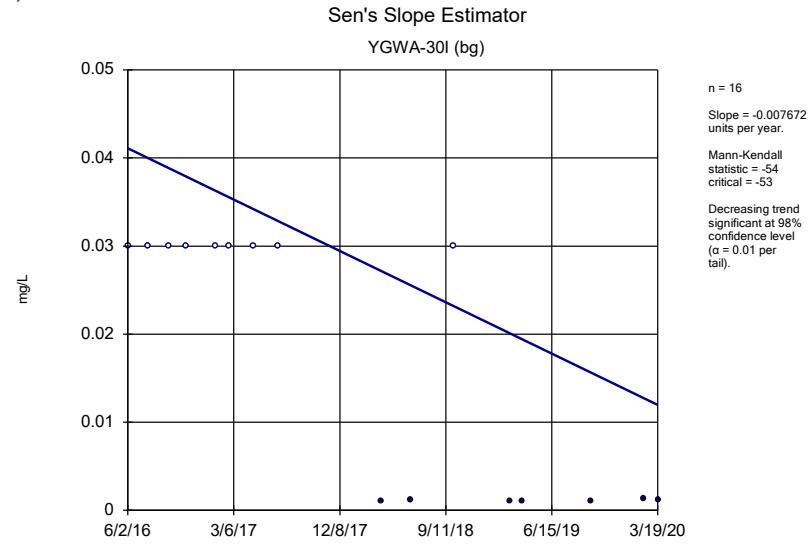
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

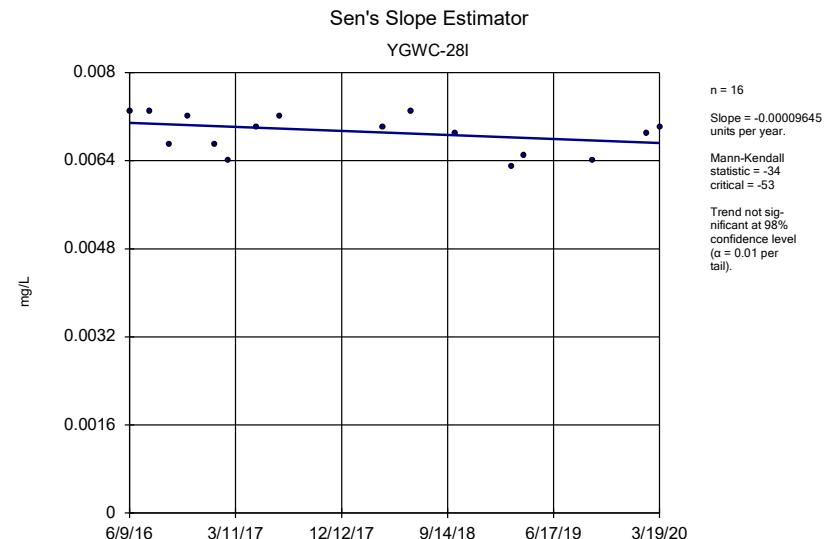
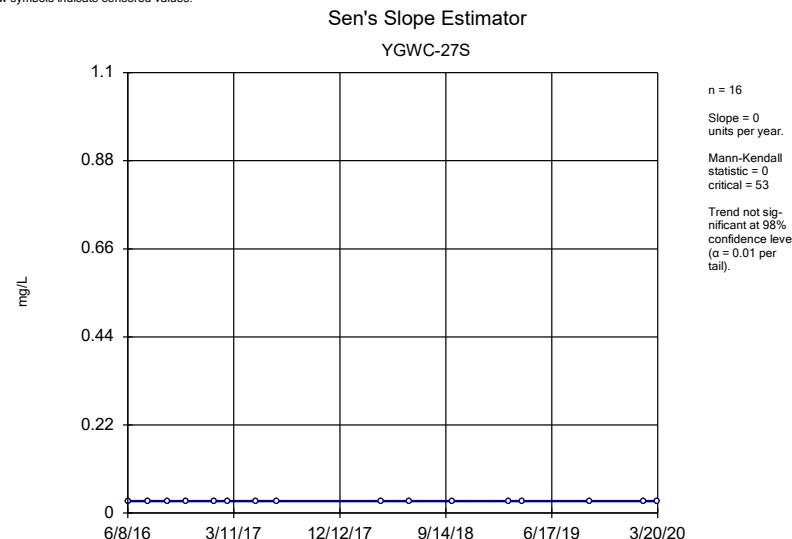
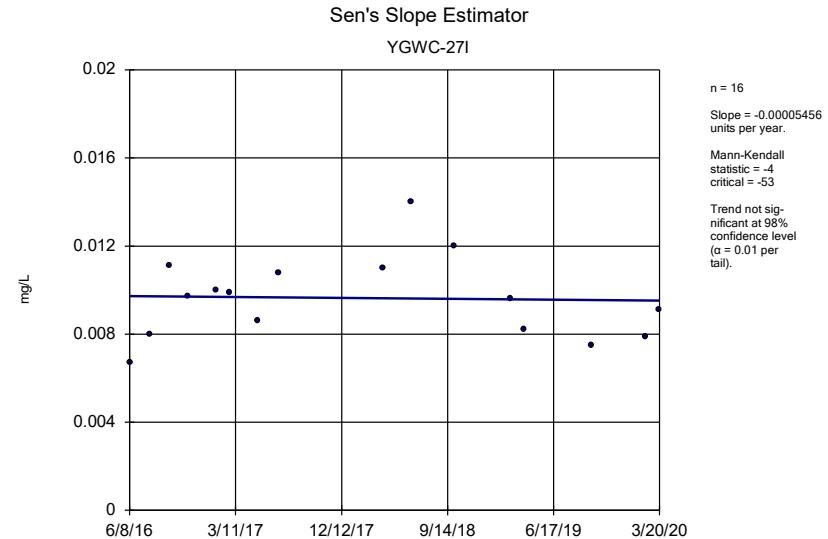
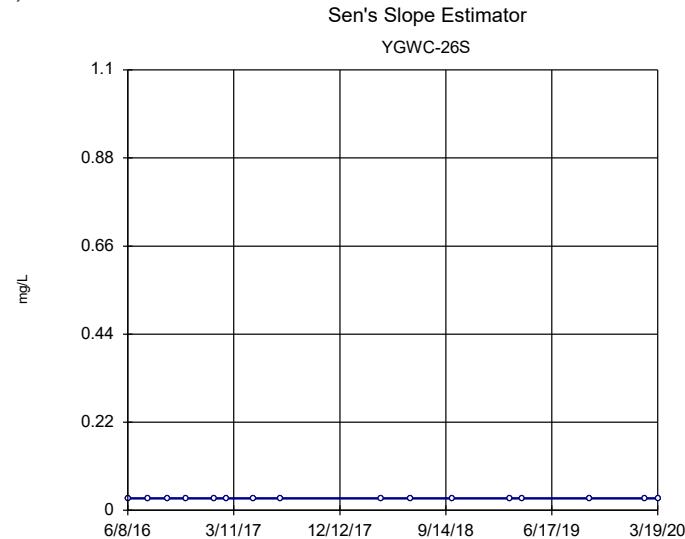
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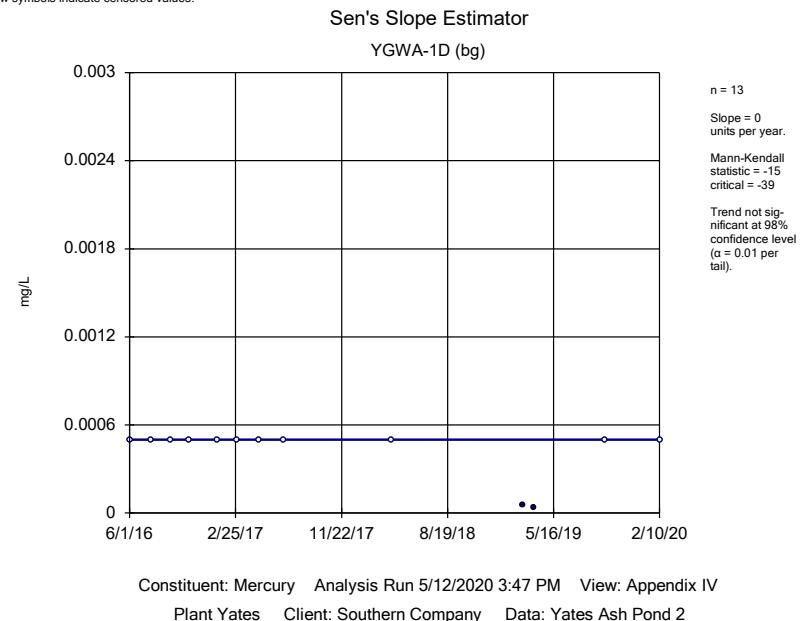
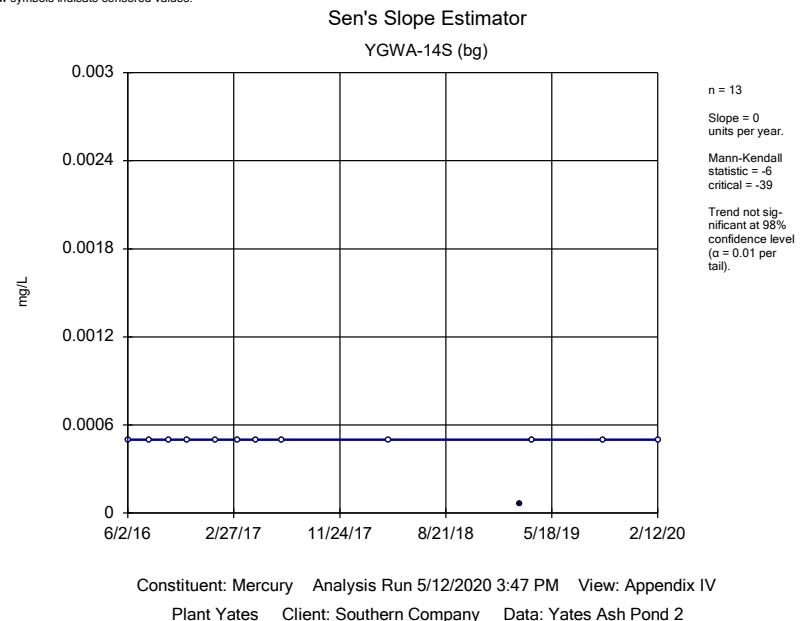
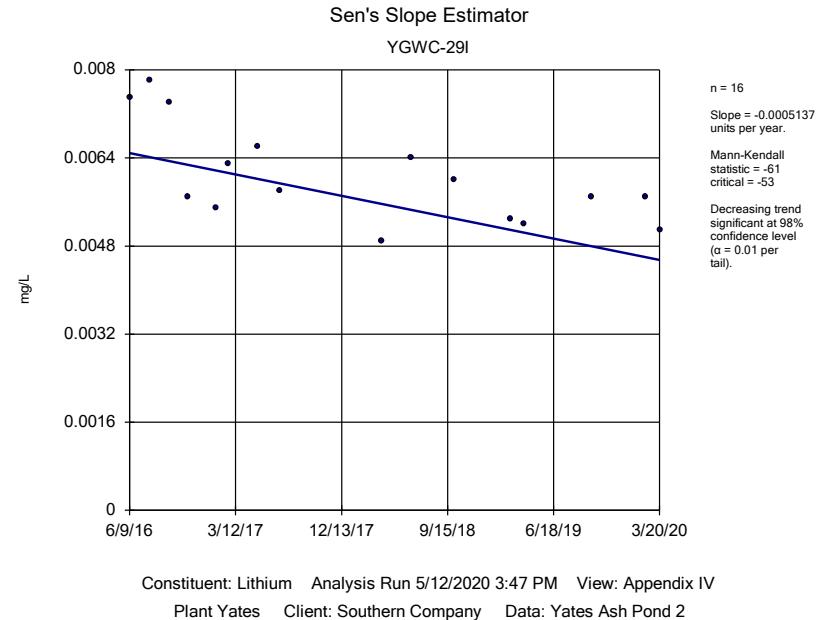
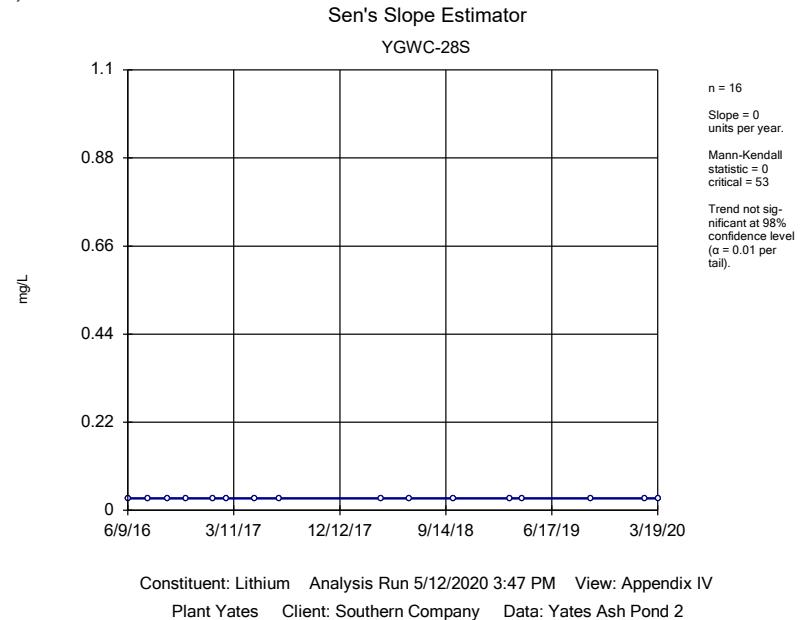


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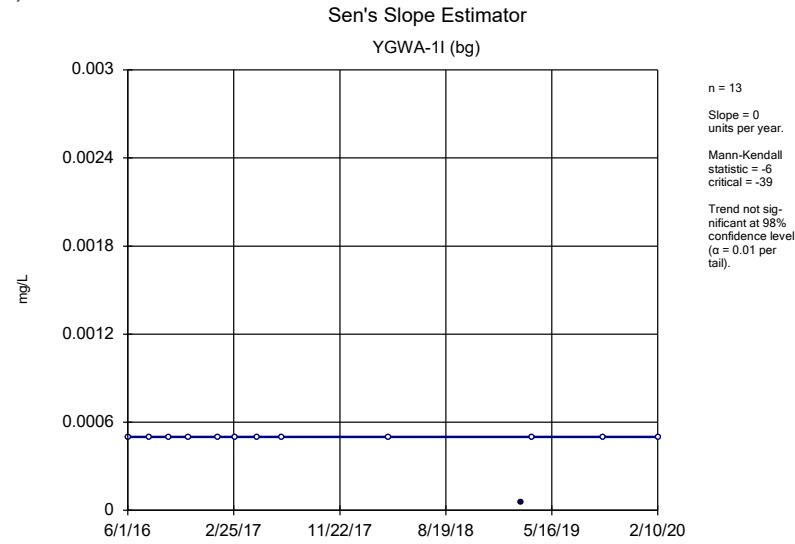




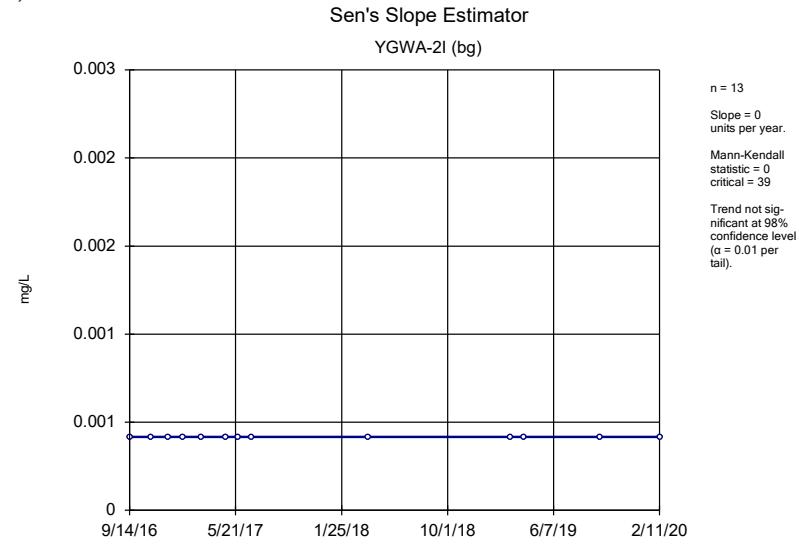




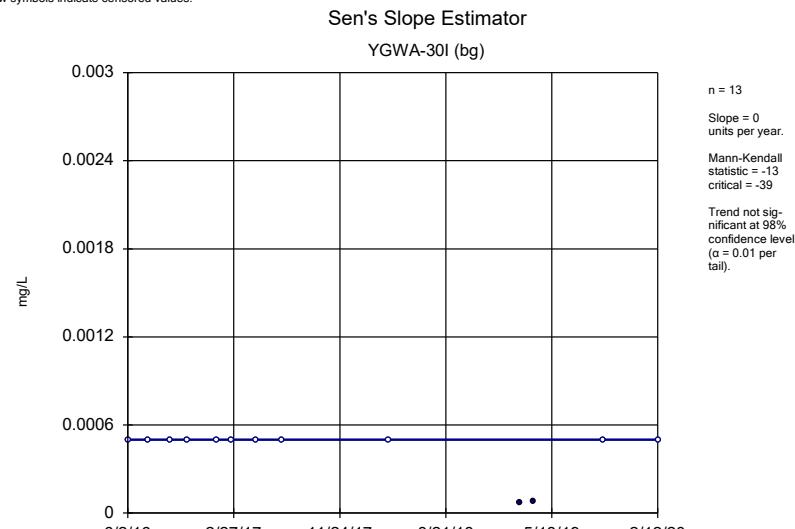
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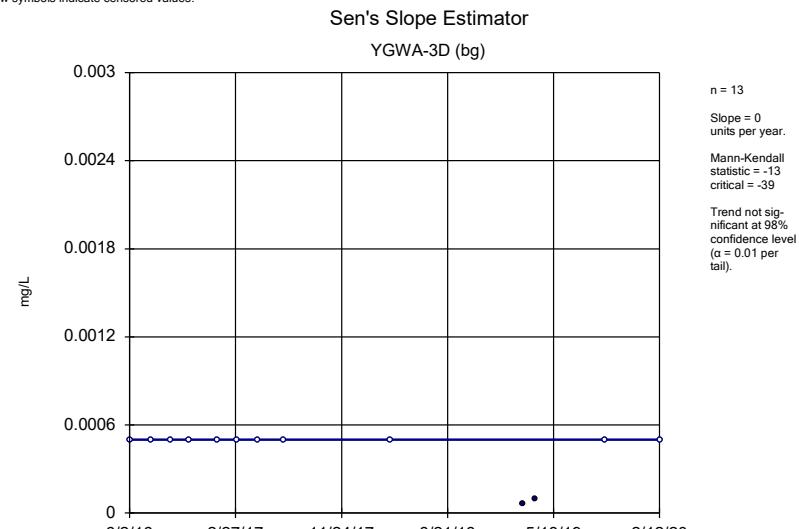
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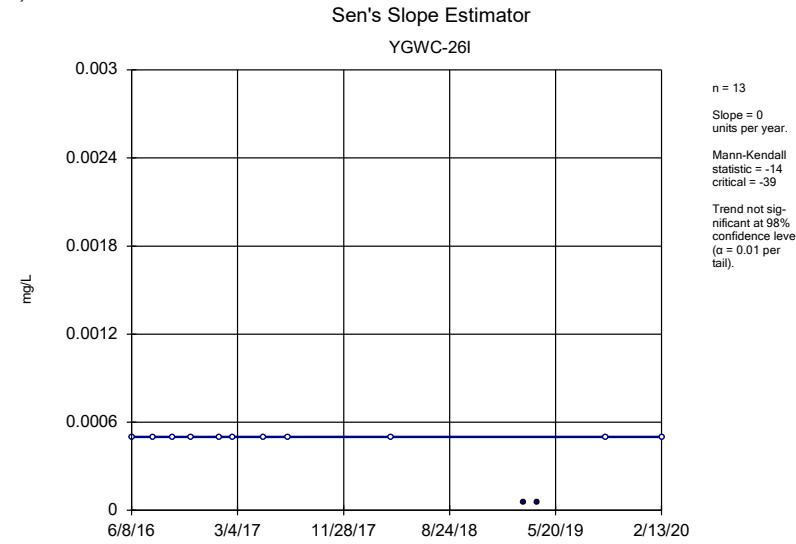


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Constituent: Mercury Analysis Run 5/12/2020 3:47 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



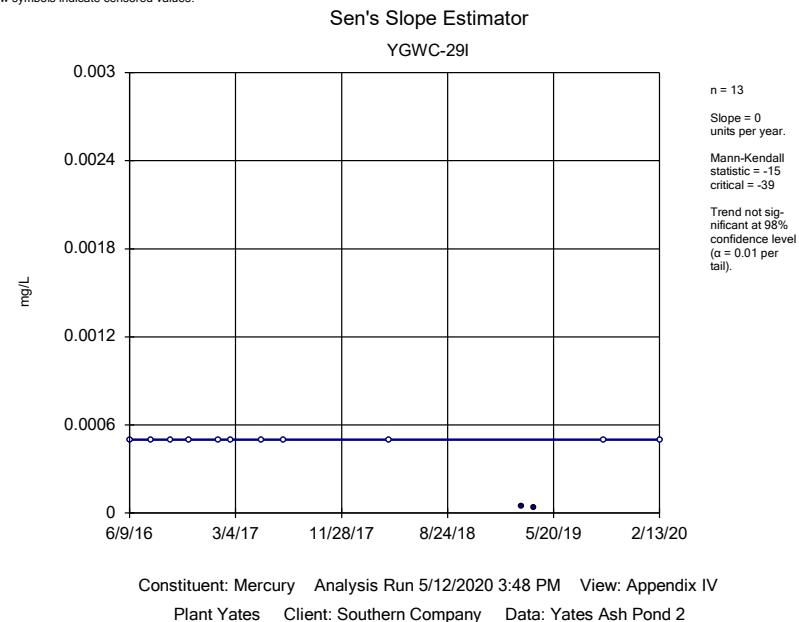
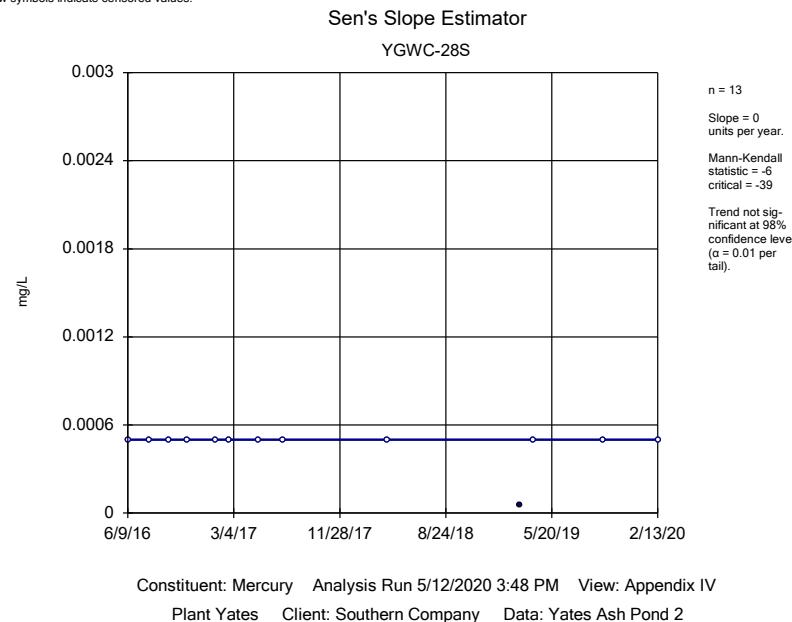
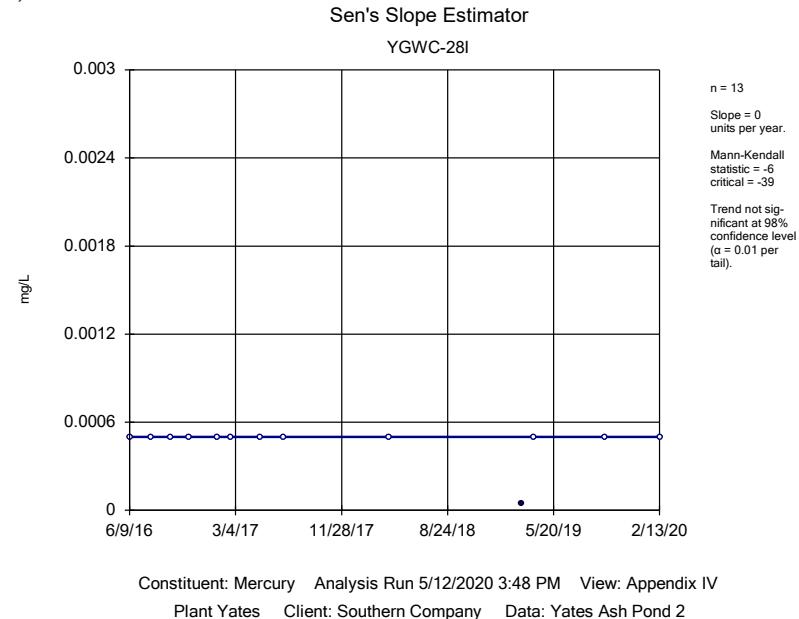
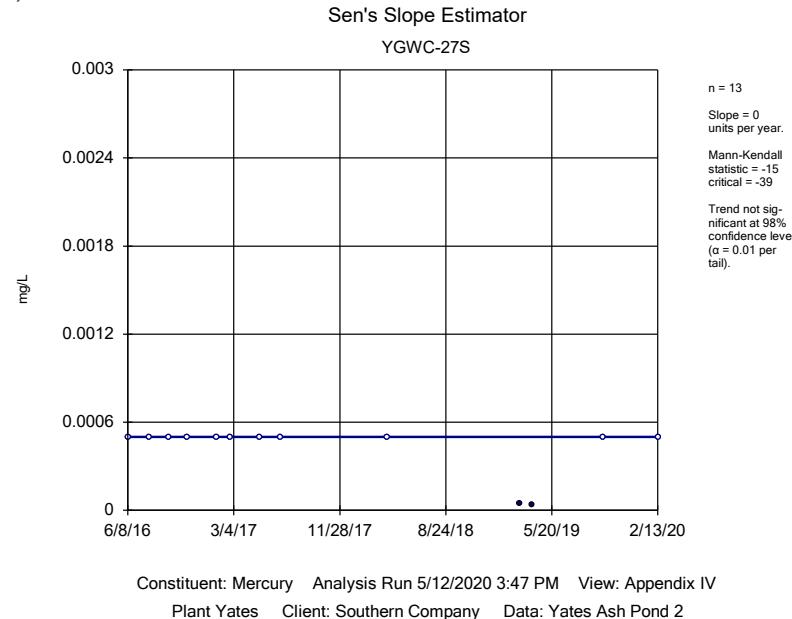
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

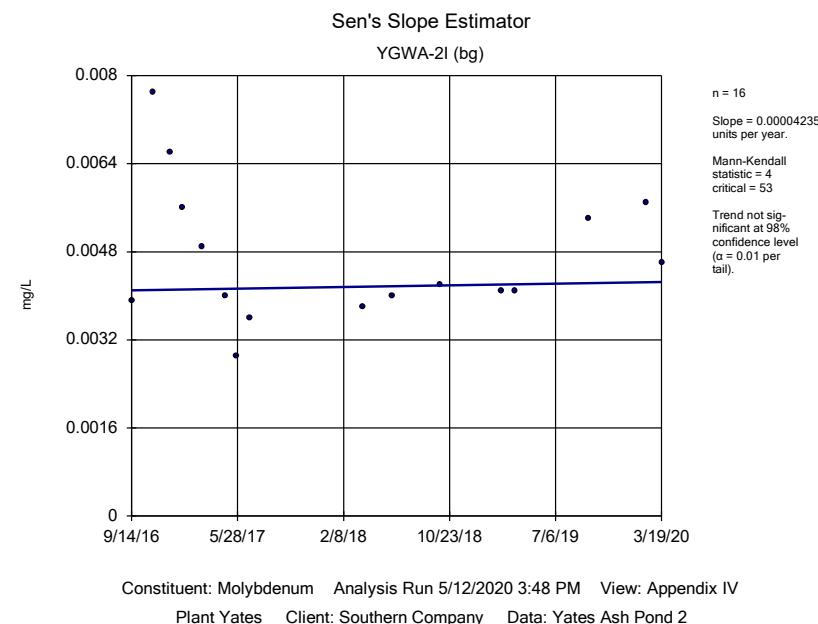
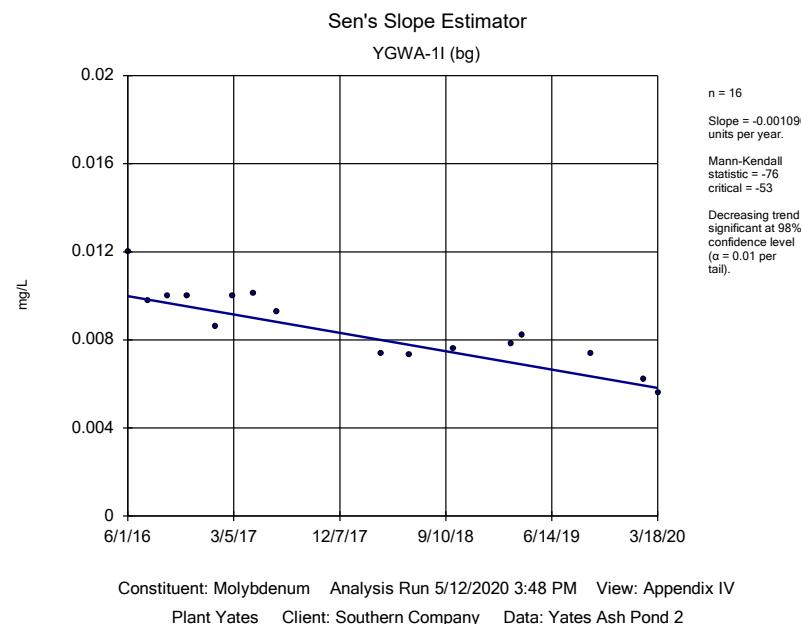
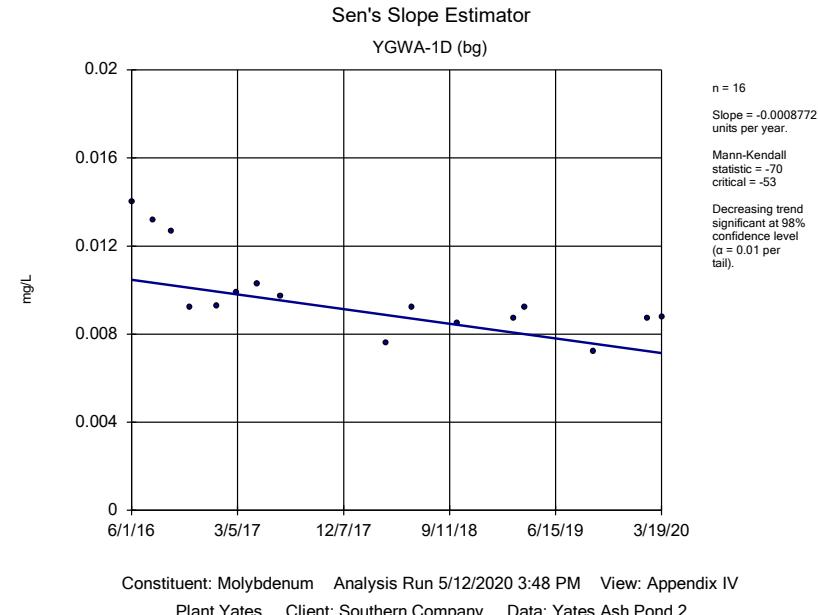
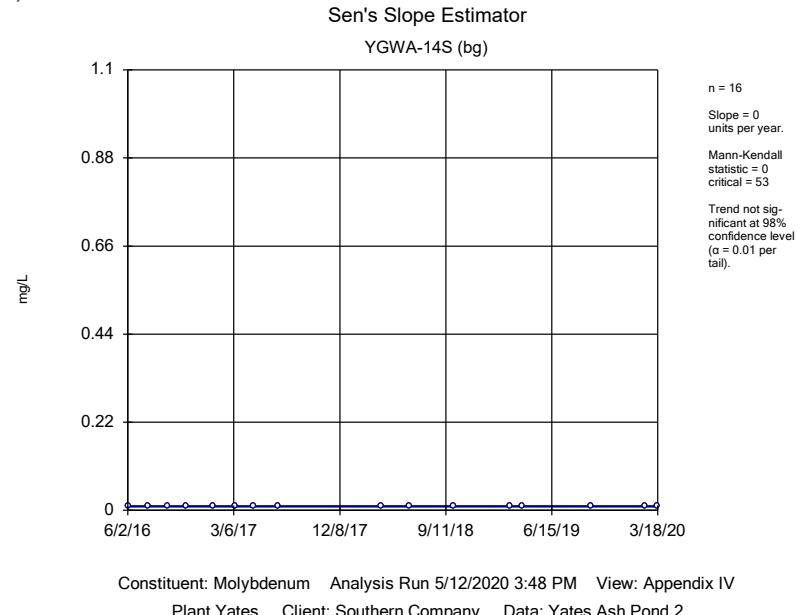


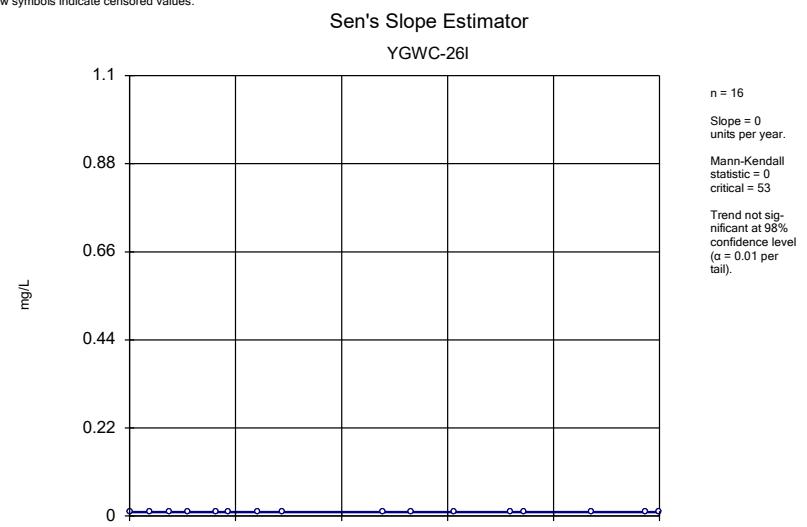
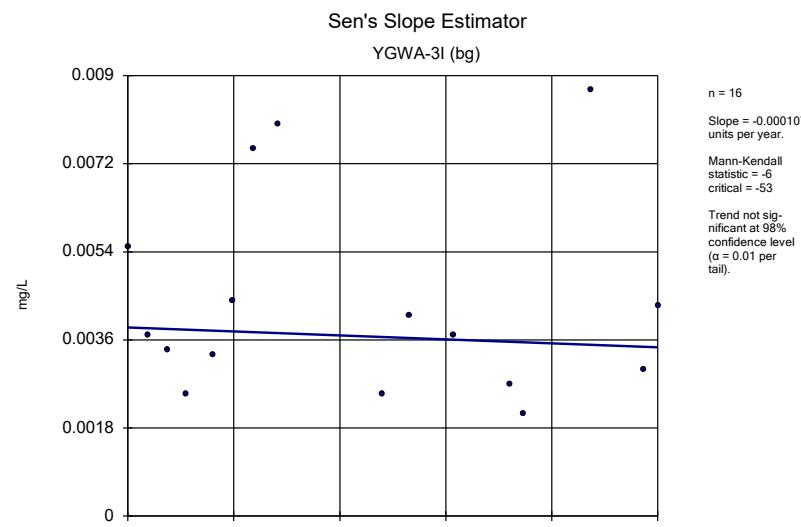
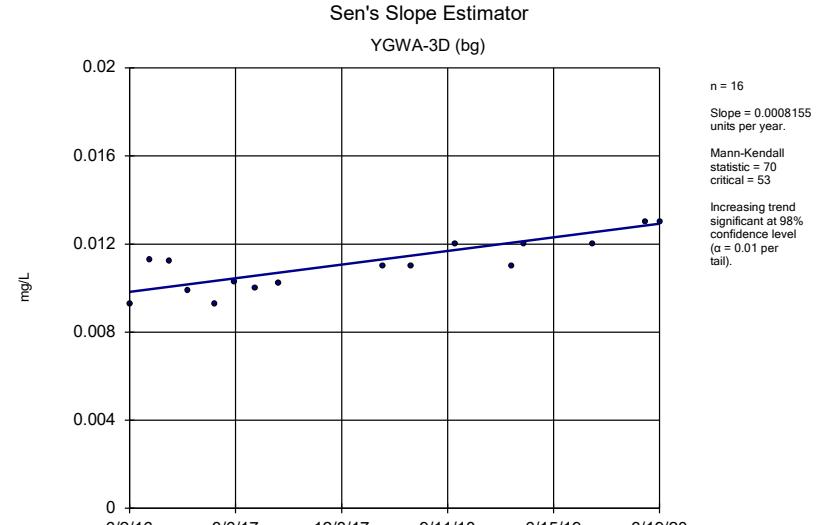
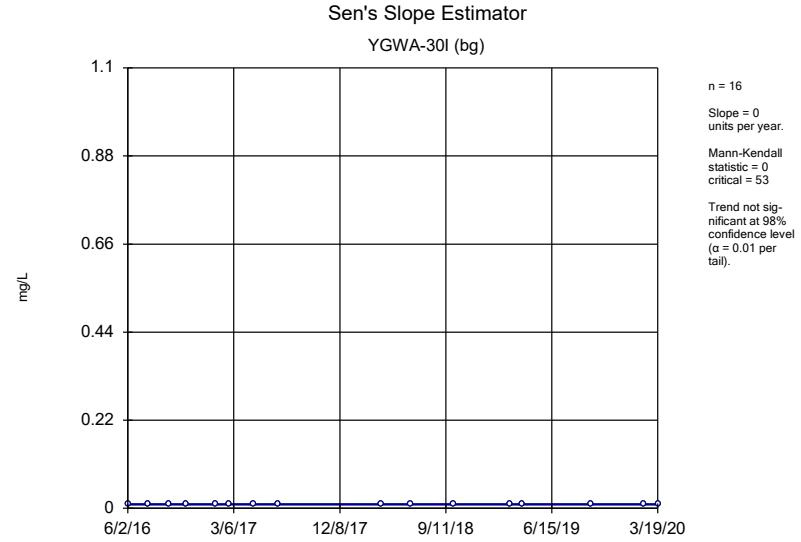
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2



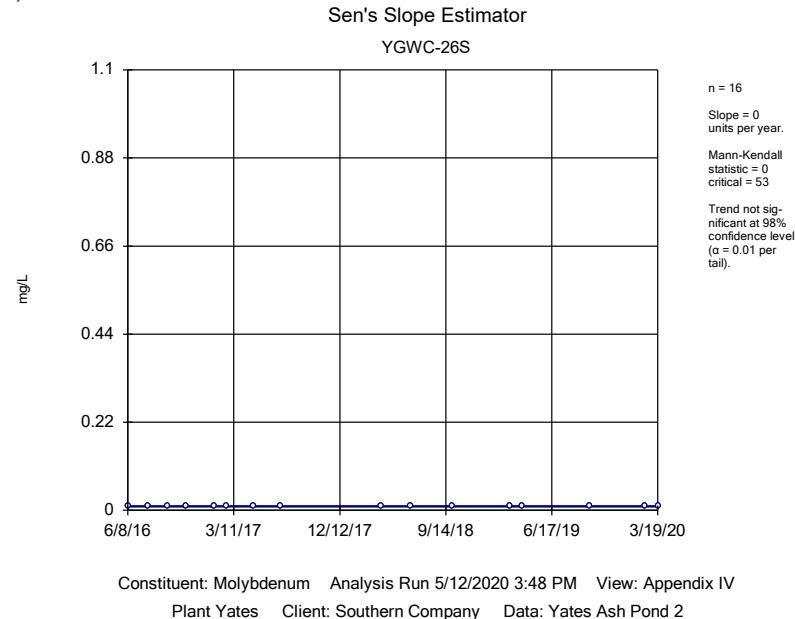
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2



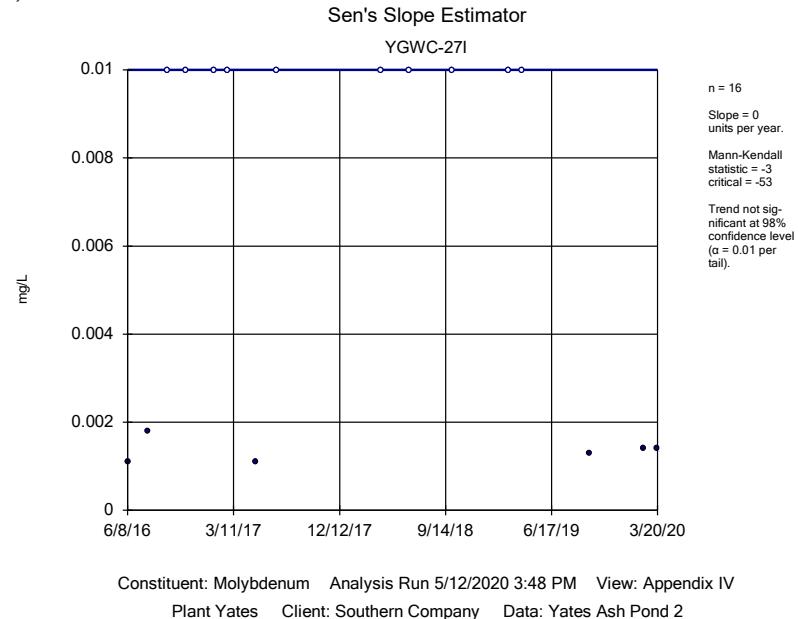




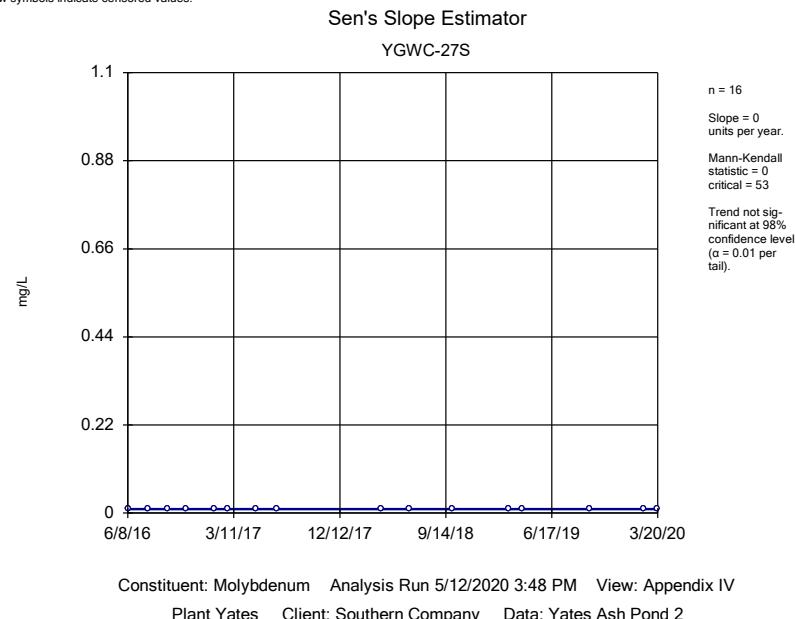
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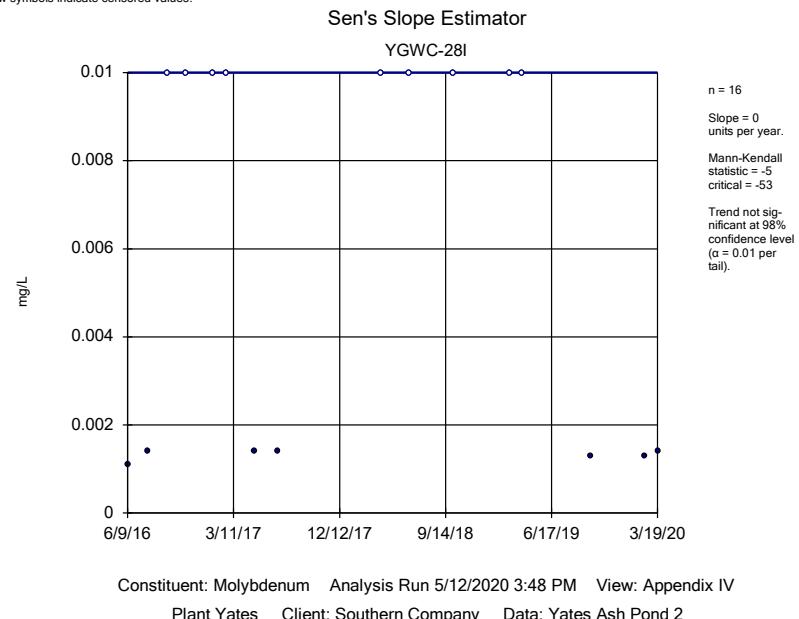
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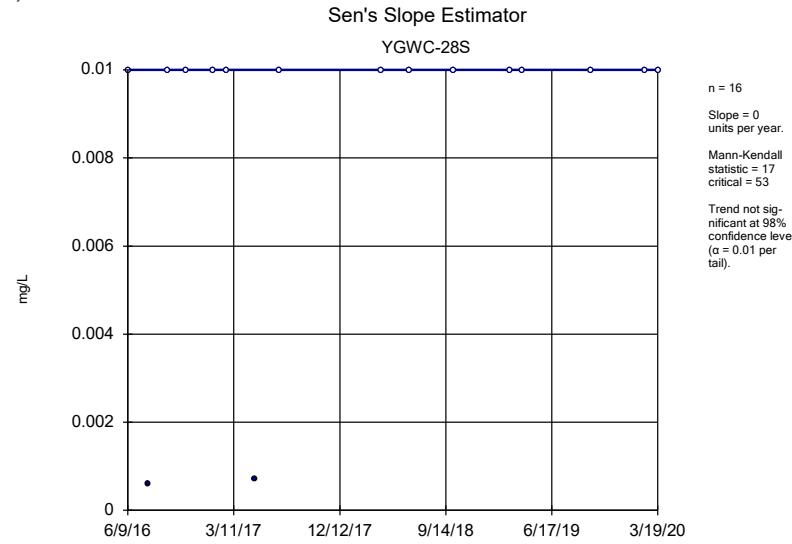
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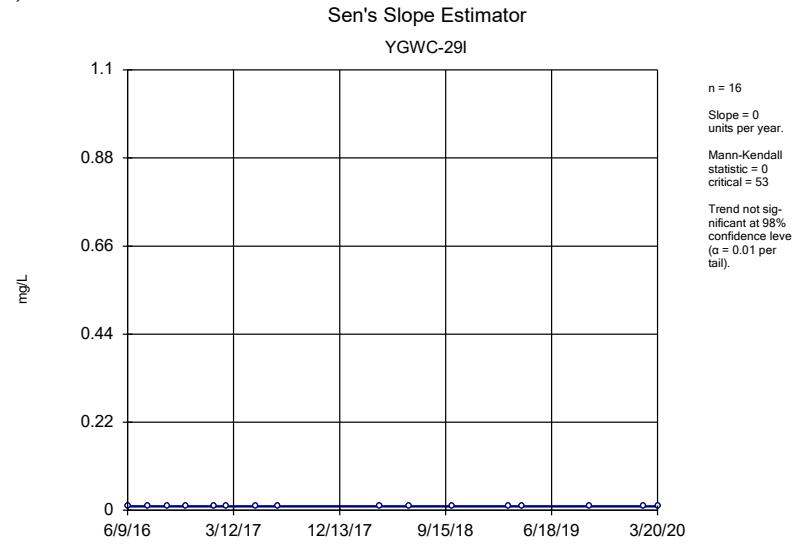


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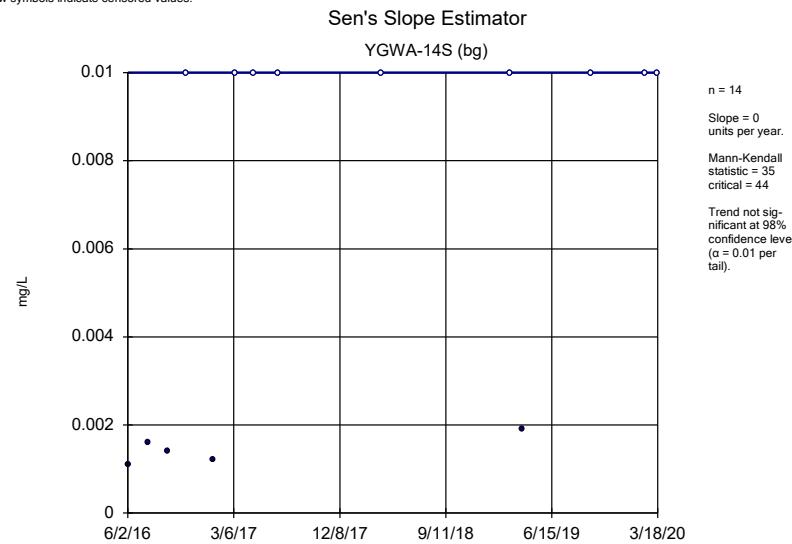
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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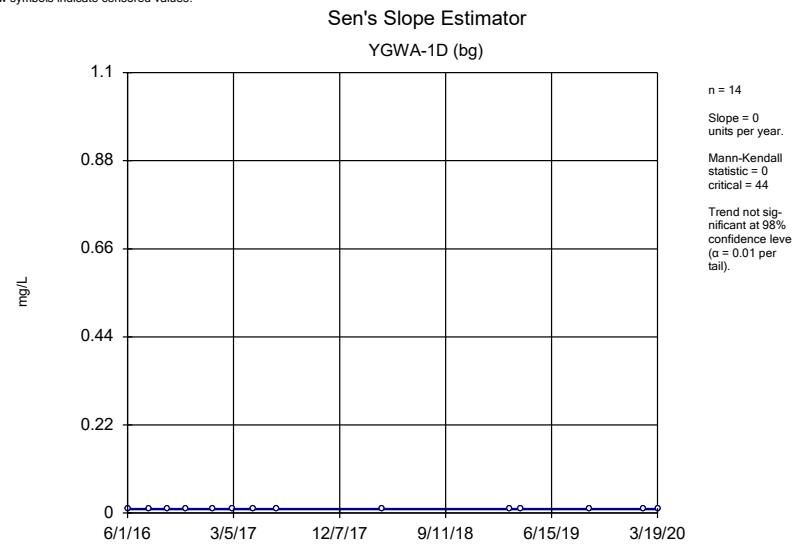
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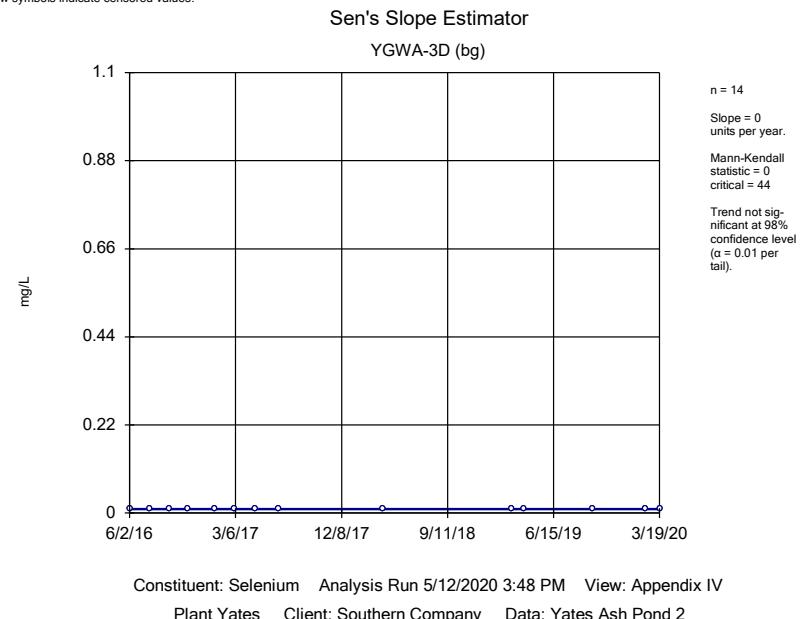
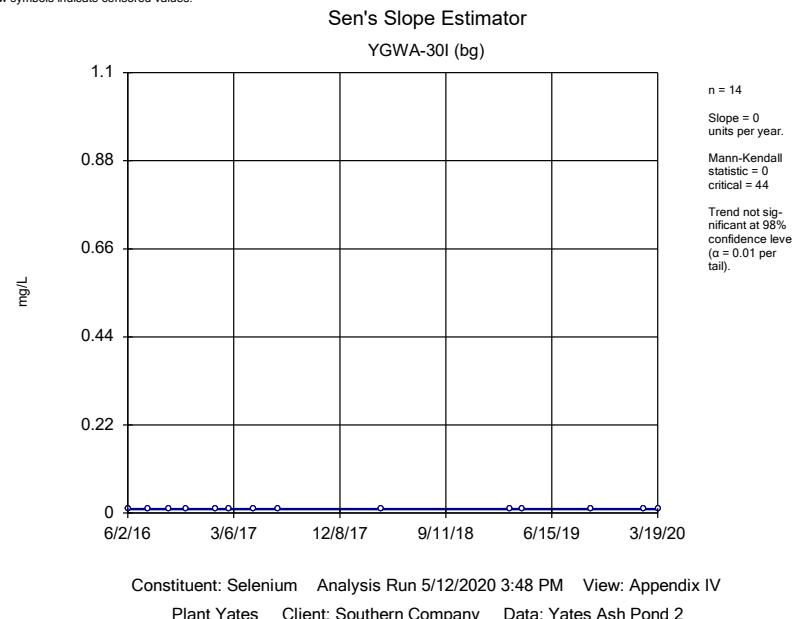
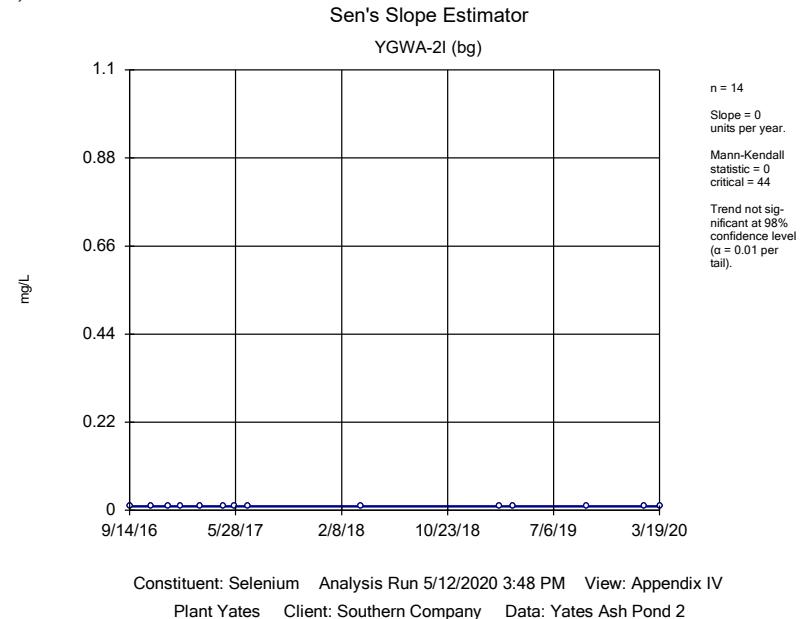
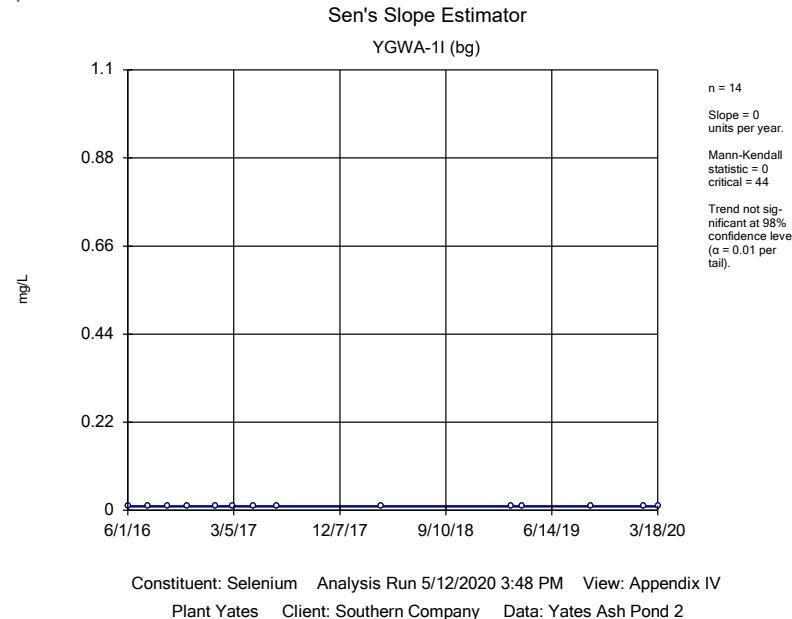


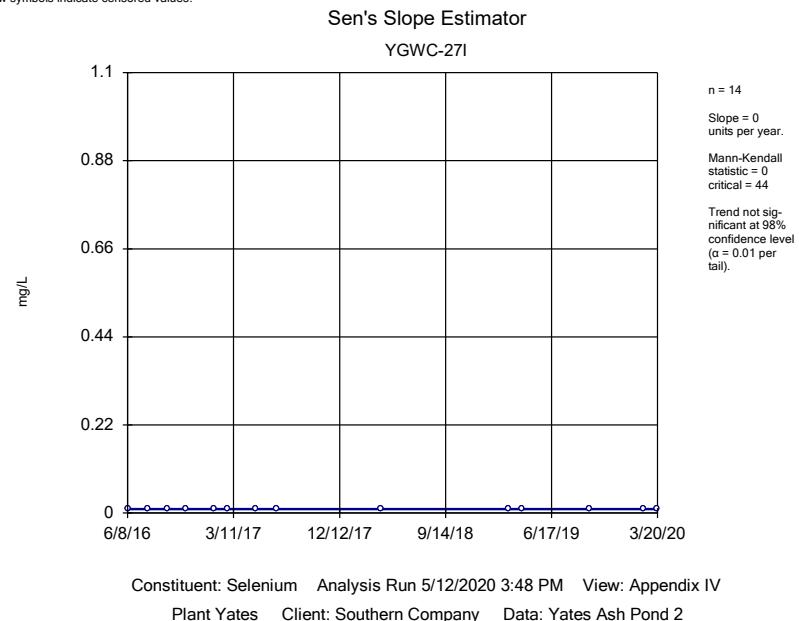
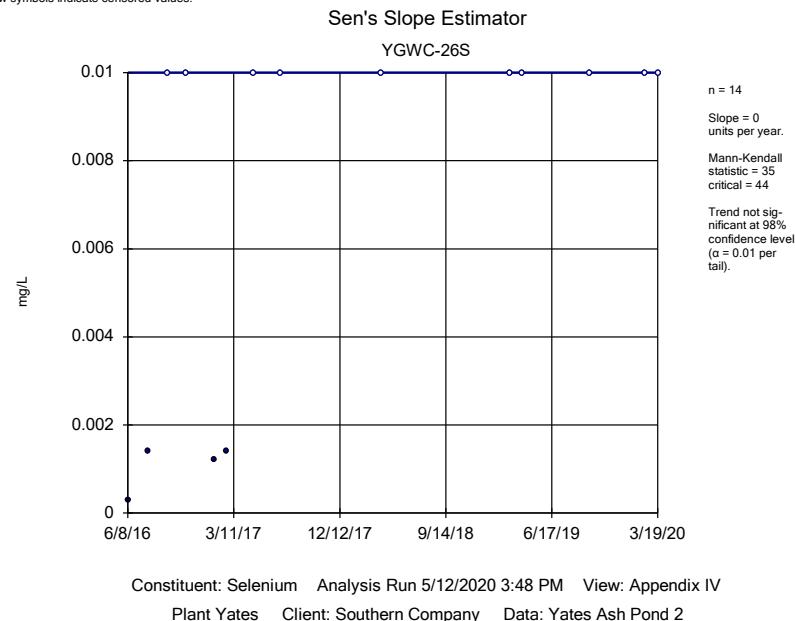
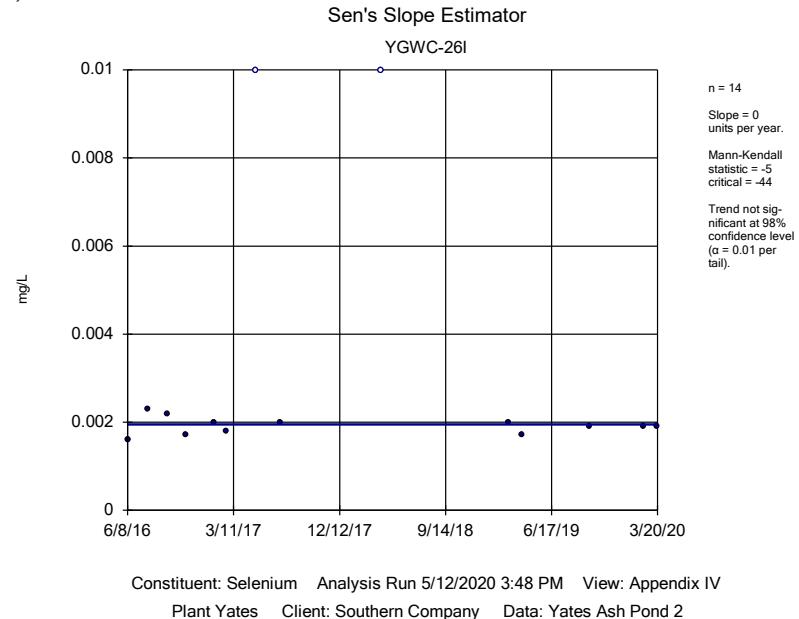
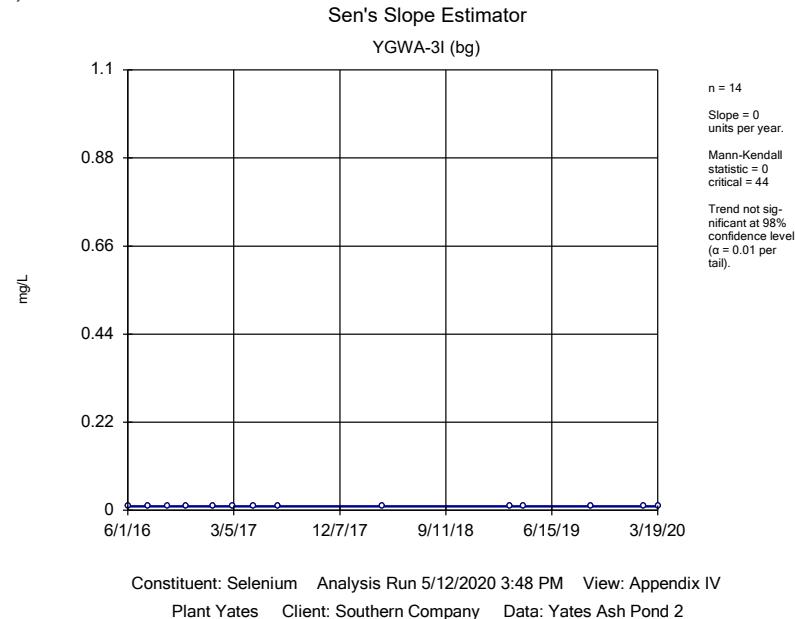
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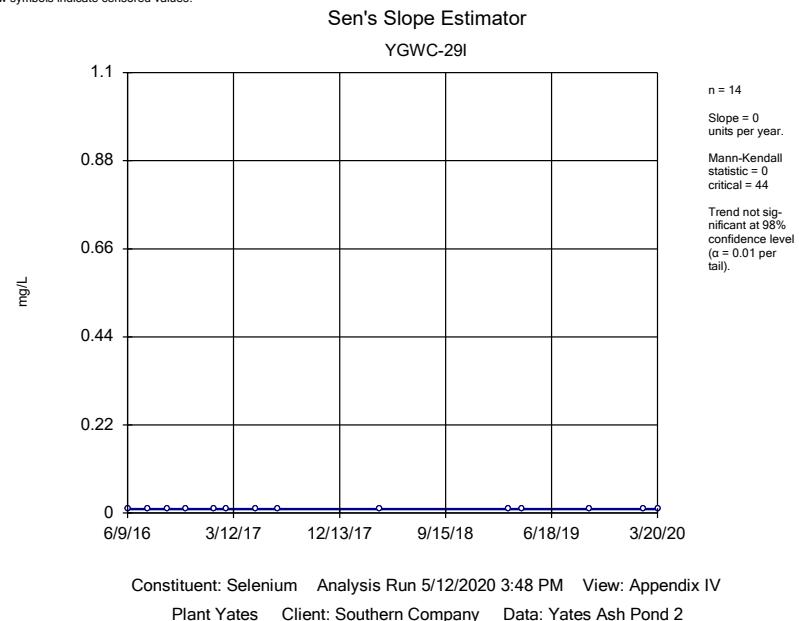
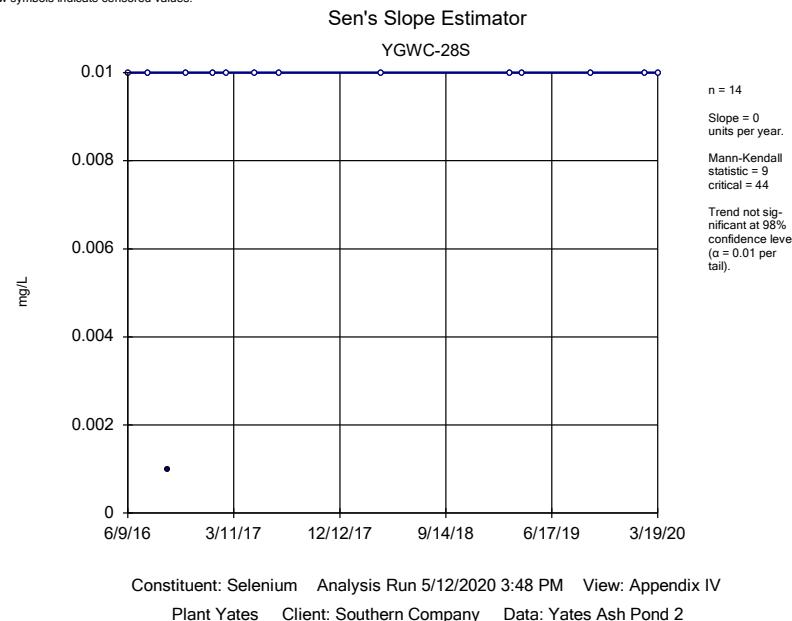
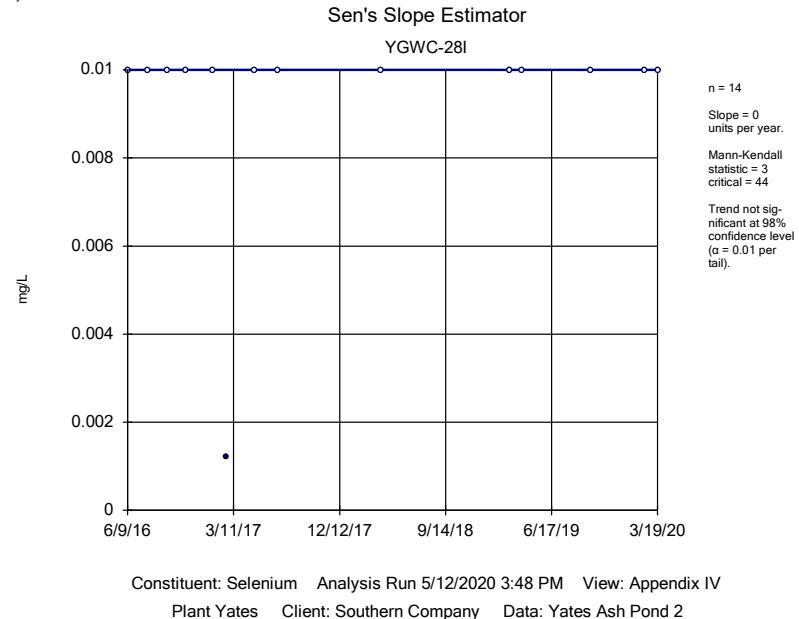
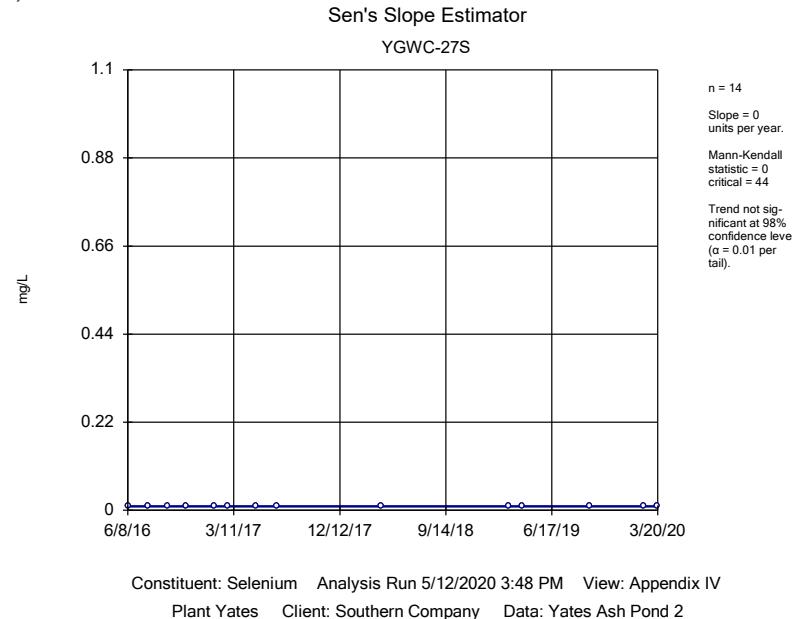
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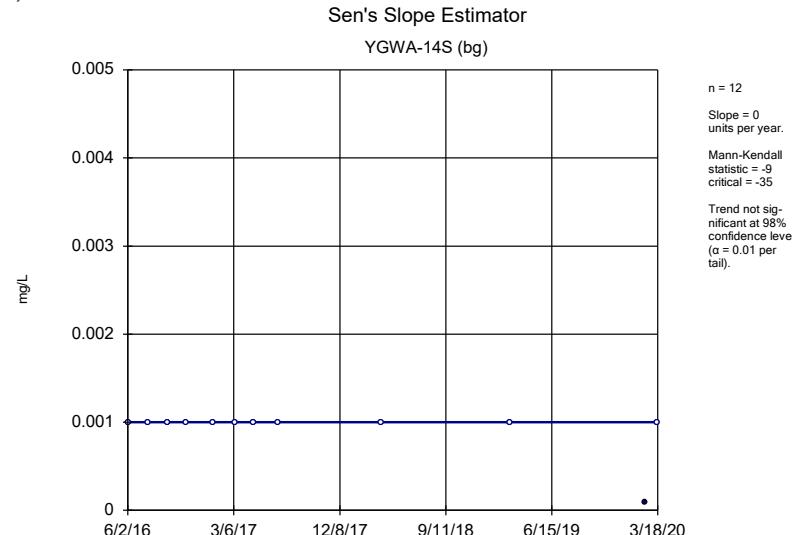
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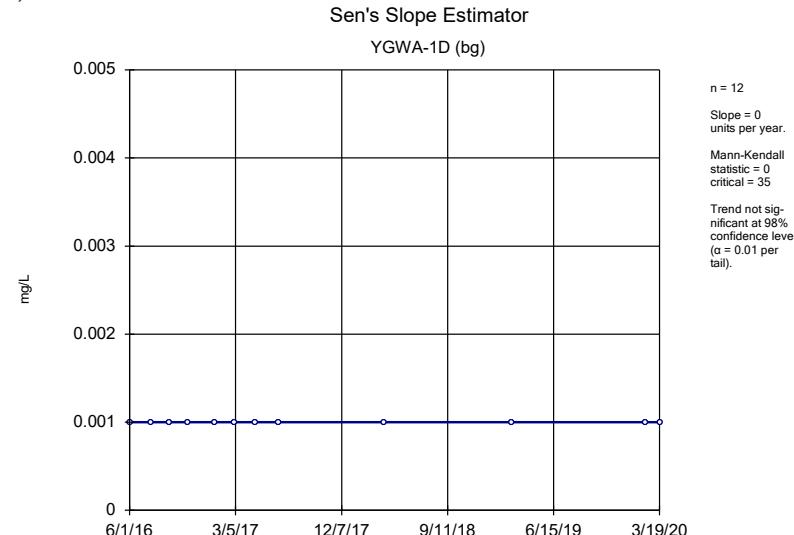


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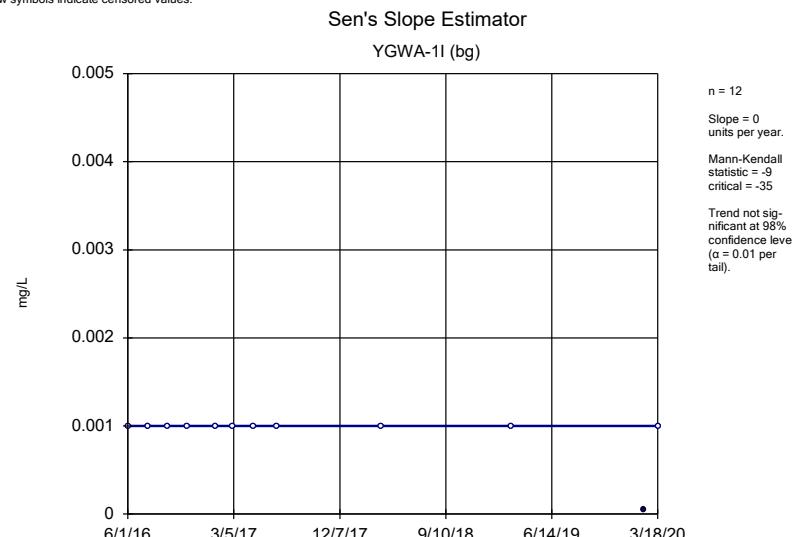
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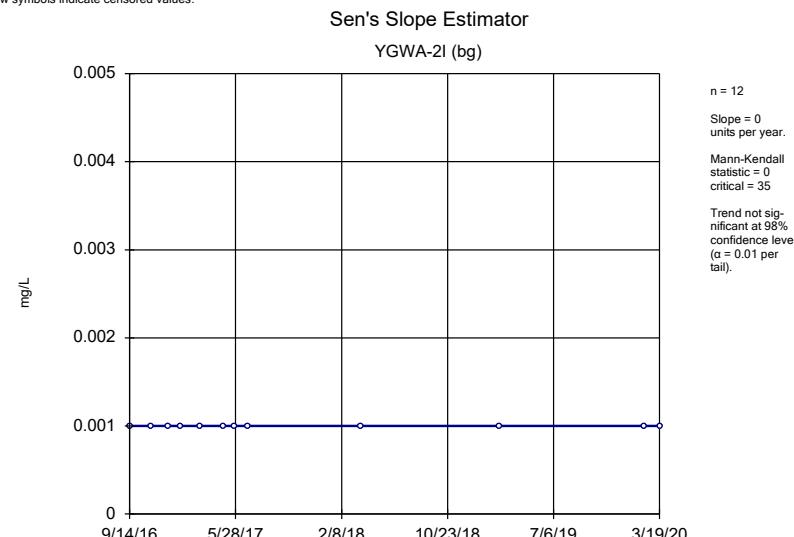
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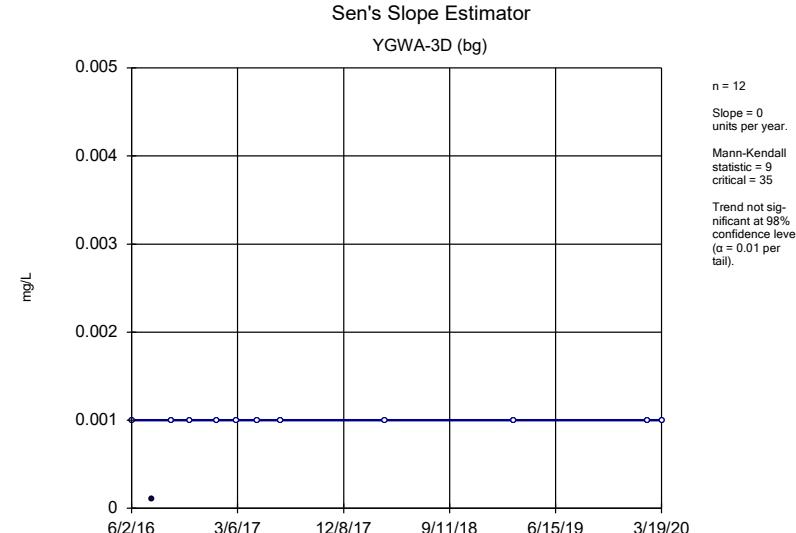


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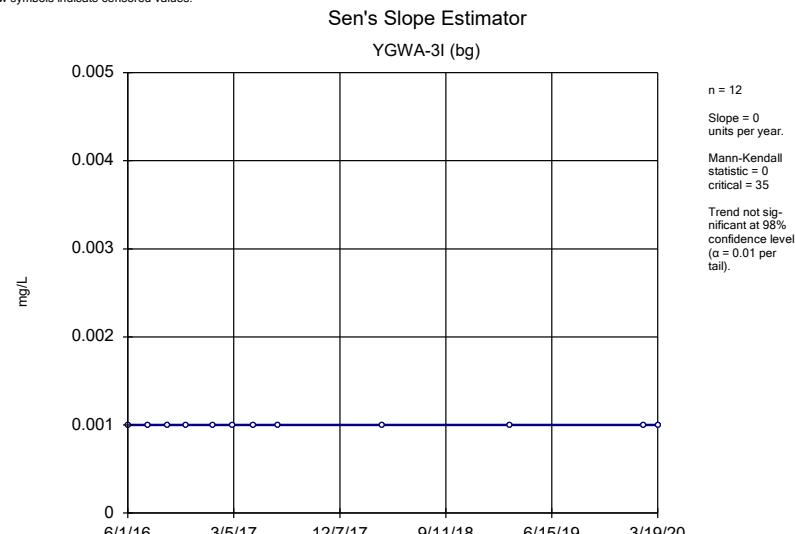
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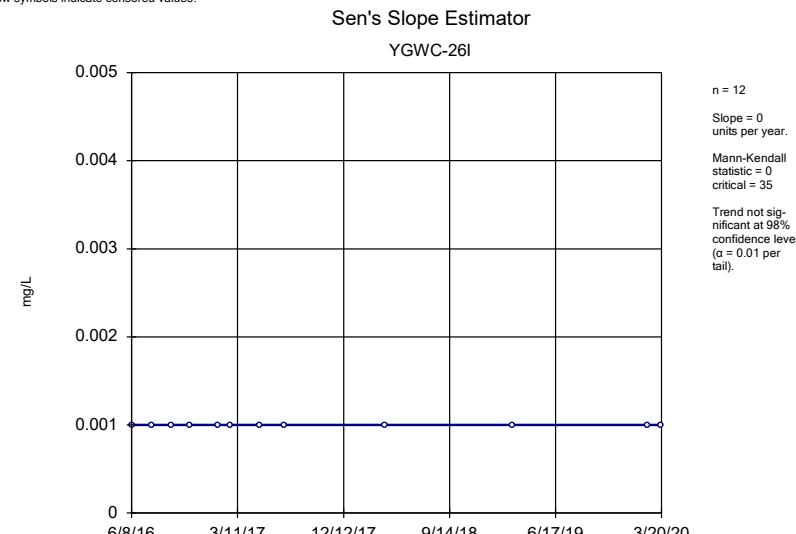
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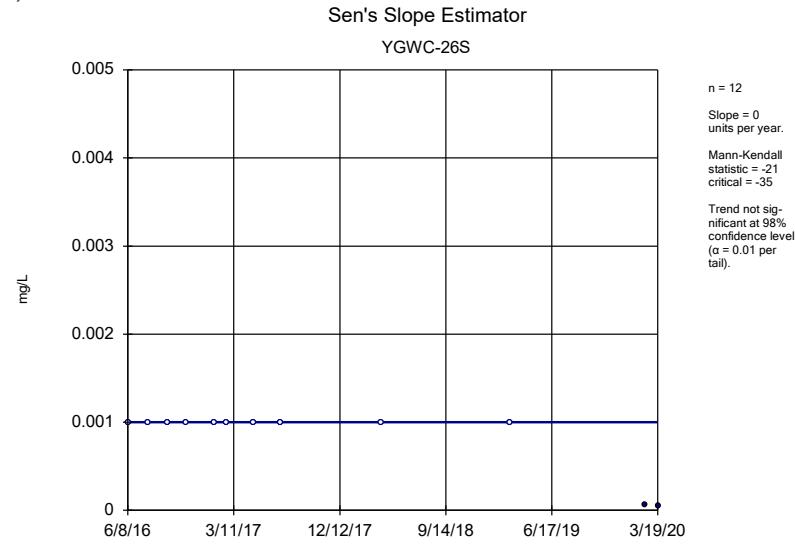
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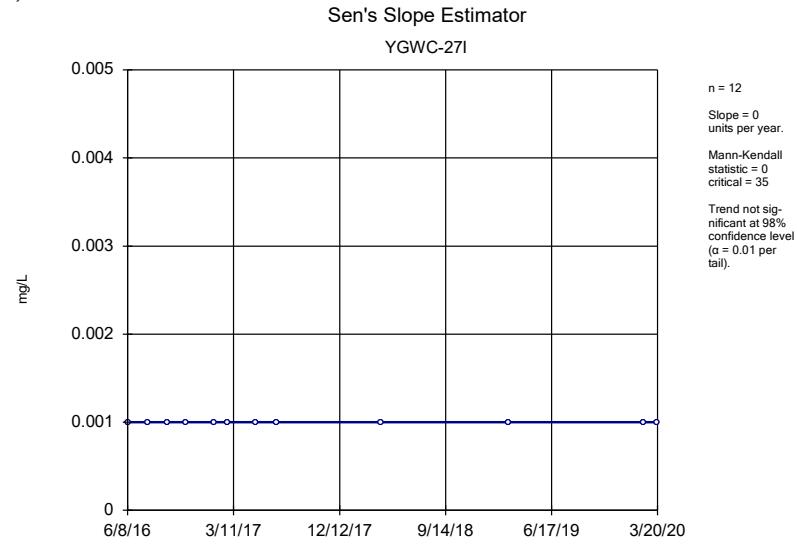
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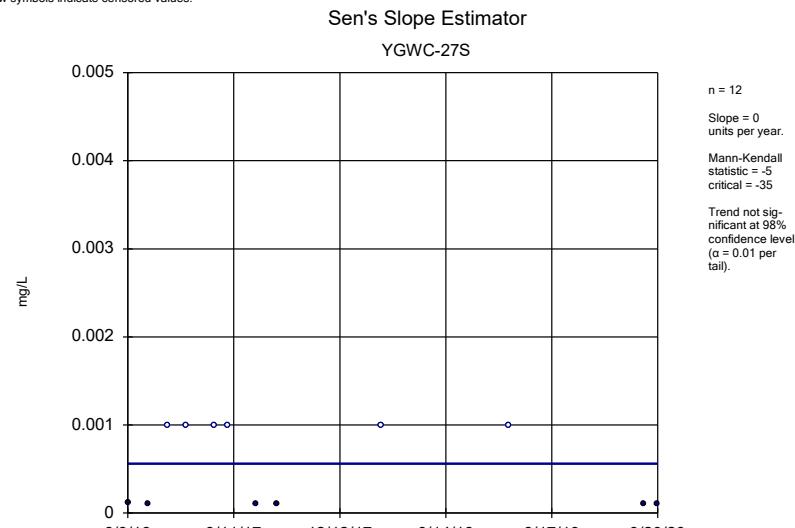
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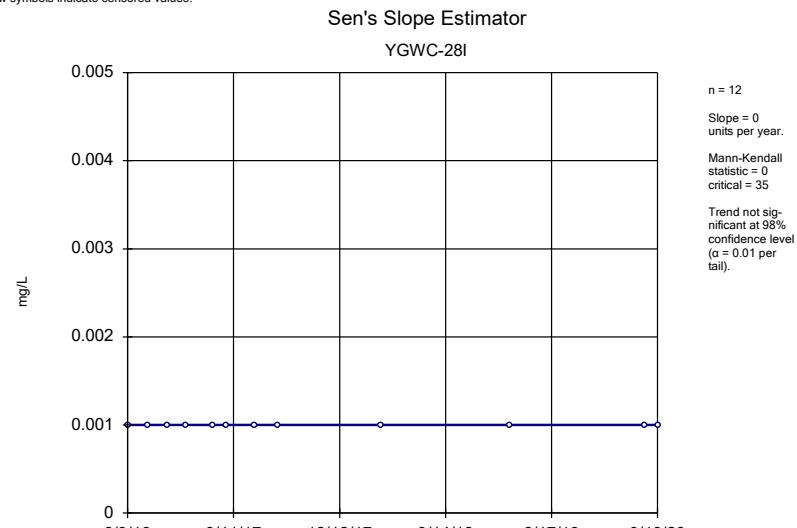
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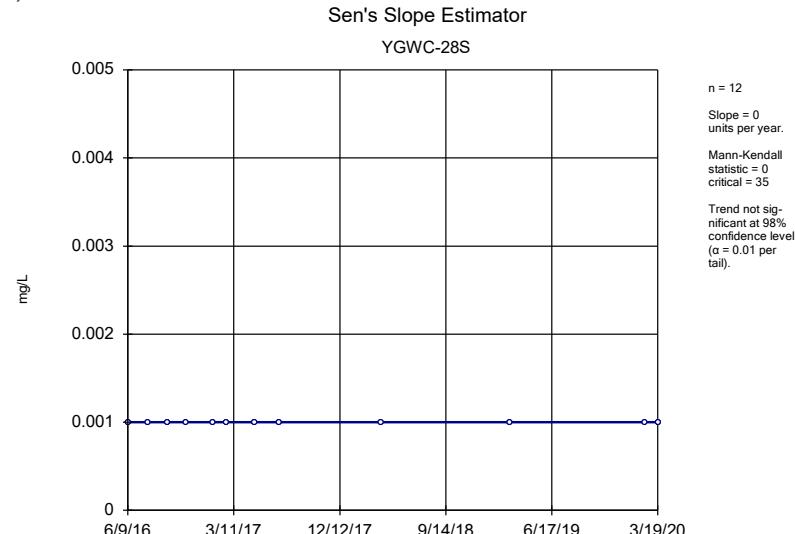


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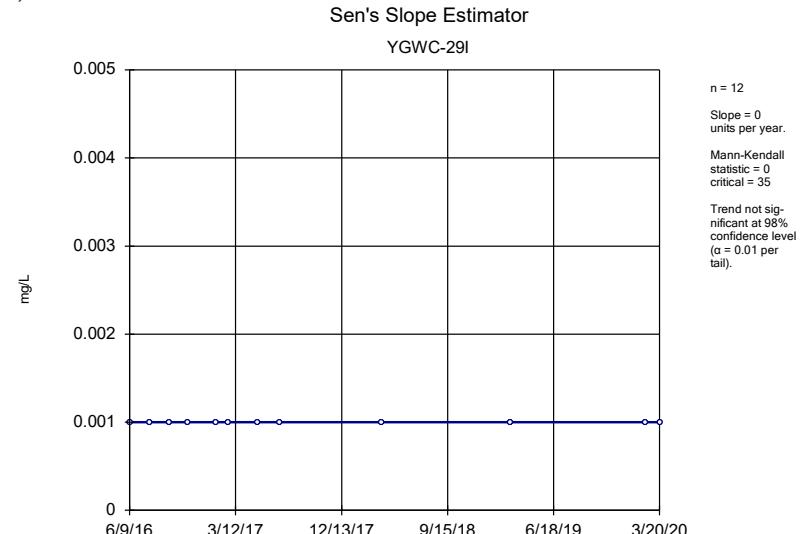


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Constituent: Thallium Analysis Run 5/12/2020 3:48 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Thallium Analysis Run 5/12/2020 3:48 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## FIGURE E.

### Appendix III Interwell Prediction Limits Summary Table - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:55 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg</u>	<u>NBg</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWC-26I	0.04	n/a	3/20/2020	0.94	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-26S	0.04	n/a	3/19/2020	0.73	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-27I	0.04	n/a	3/20/2020	2.1	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-27S	0.04	n/a	3/20/2020	1.4	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-28I	0.04	n/a	3/19/2020	2.4	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-28S	0.04	n/a	3/19/2020	2.5	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-29I	0.04	n/a	3/20/2020	0.8	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	YGWC-27S	31.5	n/a	3/20/2020	42.1	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-28I	31.5	n/a	3/19/2020	37.3	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-26I	5.2	n/a	3/20/2020	17.7	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-26S	5.2	n/a	3/19/2020	15.4	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-27I	5.2	n/a	3/20/2020	13	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-27S	5.2	n/a	3/20/2020	17.7	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-28I	5.2	n/a	3/19/2020	16	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-28S	5.2	n/a	3/19/2020	18.1	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-29I	5.2	n/a	3/20/2020	11.3	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	YGWC-26I	12.46	n/a	3/20/2020	84.7	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-26S	12.46	n/a	3/19/2020	99.4	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-27S	12.46	n/a	3/20/2020	21.1	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-29I	12.46	n/a	3/20/2020	33	Yes	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	

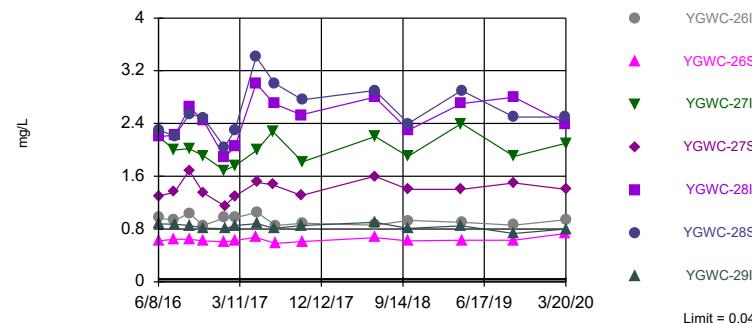
### Appendix III Interwell Prediction Limits Summary Table - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:55 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg</u>	<u>NBg</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWC-26I	0.04	n/a	3/20/2020	0.94	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-26S	0.04	n/a	3/19/2020	0.73	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-27I	0.04	n/a	3/20/2020	2.1	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-27S	0.04	n/a	3/20/2020	1.4	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-28I	0.04	n/a	3/19/2020	2.4	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-28S	0.04	n/a	3/19/2020	2.5	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Boron (mg/L)	YGWC-29I	0.04	n/a	3/20/2020	0.8	Yes	98	n/a	n/a	57.14	n/a	0.0002018	NP Inter (NDs) 1 of 2	
Calcium (mg/L)	YGWC-26I	31.5	n/a	3/20/2020	17.1	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-26S	31.5	n/a	3/19/2020	13	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-27I	31.5	n/a	3/20/2020	30.3	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	<b>YGWC-27S</b>	<b>31.5</b>	<b>n/a</b>	<b>3/20/2020</b>	<b>42.1</b>	Yes	98	n/a	n/a	0	n/a	<b>0.0002018</b>	<b>NP Inter (normality) 1 of 2</b>	
Calcium (mg/L)	YGWC-28I	31.5	n/a	3/19/2020	37.3	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-28S	31.5	n/a	3/19/2020	30.4	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Calcium (mg/L)	YGWC-29I	31.5	n/a	3/20/2020	12.7	No	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-26I	5.2	n/a	3/20/2020	17.7	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-26S	5.2	n/a	3/19/2020	15.4	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-27I	5.2	n/a	3/20/2020	13	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-27S	5.2	n/a	3/20/2020	17.7	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-28I	5.2	n/a	3/19/2020	16	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-28S	5.2	n/a	3/19/2020	18.1	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Chloride (mg/L)	YGWC-29I	5.2	n/a	3/20/2020	11.3	Yes	98	n/a	n/a	0	n/a	0.0002018	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	YGWC-26I	0.68	n/a	3/20/2020	0.06	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-26S	0.68	n/a	3/19/2020	0.3ND	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-27I	0.68	n/a	3/20/2020	0.3ND	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-27S	0.68	n/a	3/20/2020	0.097	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-28I	0.68	n/a	3/19/2020	0.07	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-28S	0.68	n/a	3/19/2020	0.16	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
Fluoride (mg/L)	YGWC-29I	0.68	n/a	3/20/2020	0.057	No	119	n/a	n/a	52.94	n/a	0.0001378	NP Inter (NDs) 1 of 2	
pH (S.U.)	YGWC-26I	7.91	5.02	3/20/2020	5.94	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-26S	7.91	5.02	3/19/2020	5.46	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-27I	7.91	5.02	3/20/2020	6.32	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-27S	7.91	5.02	3/20/2020	6.18	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-28I	7.91	5.02	3/19/2020	7.01	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-28S	7.91	5.02	3/19/2020	6.98	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
pH (S.U.)	YGWC-29I	7.91	5.02	3/20/2020	6.17	No	119	n/a	n/a	0	n/a	0.0002756	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	<b>YGWC-26I</b>	<b>12.46</b>	<b>n/a</b>	<b>3/20/2020</b>	<b>84.7</b>	Yes	98	<b>6.415</b>	<b>3.211</b>	<b>2.041</b>	<b>None</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>	
Sulfate (mg/L)	<b>YGWC-26S</b>	<b>12.46</b>	<b>n/a</b>	<b>3/19/2020</b>	<b>99.4</b>	Yes	98	<b>6.415</b>	<b>3.211</b>	<b>2.041</b>	<b>None</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>	
Sulfate (mg/L)	YGWC-27I	12.46	n/a	3/20/2020	5.2	No	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	<b>YGWC-27S</b>	<b>12.46</b>	<b>n/a</b>	<b>3/20/2020</b>	<b>21.1</b>	Yes	98	<b>6.415</b>	<b>3.211</b>	<b>2.041</b>	<b>None</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>	
Sulfate (mg/L)	YGWC-28I	12.46	n/a	3/19/2020	9.1	No	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	YGWC-28S	12.46	n/a	3/19/2020	1.7	No	98	6.415	3.211	2.041	None	0.001075	Param Inter 1 of 2	
Sulfate (mg/L)	<b>YGWC-29I</b>	<b>12.46</b>	<b>n/a</b>	<b>3/20/2020</b>	<b>33</b>	Yes	98	<b>6.415</b>	<b>3.211</b>	<b>2.041</b>	<b>None</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>	
Total Dissolved Solids (mg/L)	YGWC-26I	223	n/a	3/20/2020	211	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-26S	223	n/a	3/19/2020	194	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-27I	223	n/a	3/20/2020	195	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-27S	223	n/a	3/20/2020	182	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-28I	223	n/a	3/19/2020	212	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-28S	223	n/a	3/19/2020	202	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	
Total Dissolved Solids (mg/L)	YGWC-29I	223	n/a	3/20/2020	137	No	98	n/a	n/a	2.041	n/a	0.0002018	NP Inter (normality) 1 of 2	

Exceeds Limit: YGWC-26I, YGWC-26S,  
YGWC-27I, YGWC-27S, YGWC-28I, YGWC-  
-28S, YGWC-29I

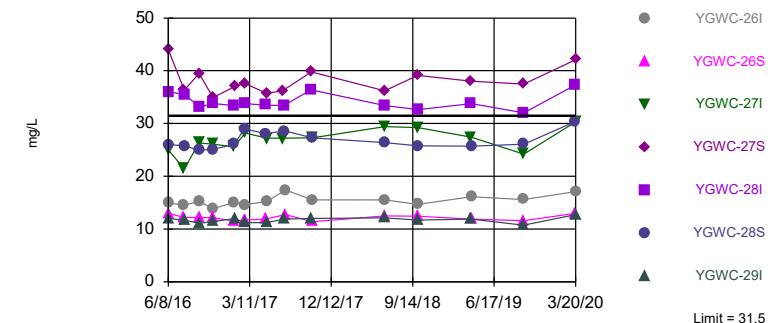
### Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 98 background values. 57.14% NDs. Annual per-constituent alpha = 0.002821. Individual comparison alpha = 0.0002018 (1 of 2). Comparing 7 points to limit.

Exceeds Limit: YGWC-27S, YGWC-28I

### Prediction Limit Interwell Non-parametric



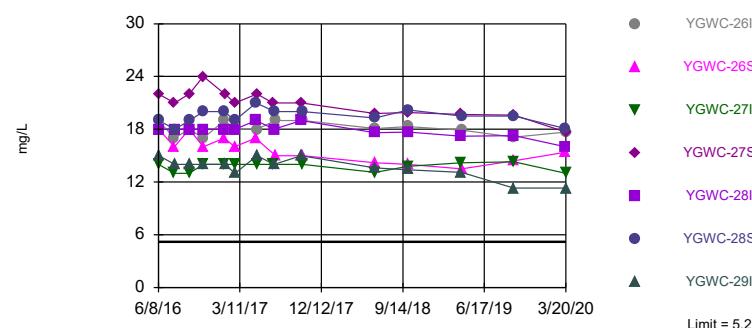
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 98 background values. Annual per-constituent alpha = 0.002821. Individual comparison alpha = 0.0002018 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 5/12/2020 3:54 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Constituent: Calcium Analysis Run 5/12/2020 3:54 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-26I, YGWC-26S,  
YGWC-27I, YGWC-27S, YGWC-28I, YGWC-  
-28S, YGWC-29I

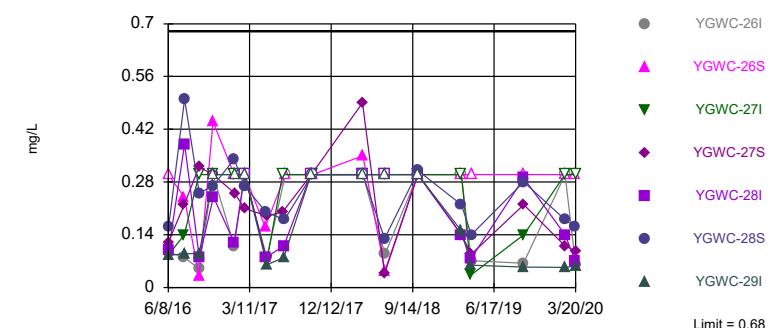
### Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 98 background values. Annual per-constituent alpha = 0.002821. Individual comparison alpha = 0.0002018 (1 of 2). Comparing 7 points to limit.

Within Limit

### Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 119 background values. 52.94% NDs. Annual per-constituent alpha = 0.001928. Individual comparison alpha = 0.0001378 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 5/12/2020 3:54 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Constituent: Fluoride Analysis Run 5/12/2020 3:54 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/1/2016	<0.04	<0.04	<0.04						
6/2/2016				<0.04	<0.04	<0.04			
6/8/2016							1.3	2.2	0.62
6/9/2016									
7/25/2016	<0.04	<0.04		<0.04					
7/26/2016				0.0055 (J)		0.0097 (J)	0.0177 (J)		
8/1/2016							1.36	2	0.643
8/2/2016									
9/13/2016	<0.04		<0.04						
9/14/2016		<0.04							
9/15/2016					0.0102 (J)	0.0214 (J)			
9/19/2016				<0.04					
9/20/2016							1.69	2.02	0.644
9/21/2016									
11/1/2016		<0.04		0.0086 (J)	<0.04	<0.04			
11/2/2016						<0.04 (*)			
11/4/2016	<0.04								
11/7/2016							1.35	1.91	0.621
11/8/2016									
12/15/2016									
1/10/2017						0.0198 (J)			
1/11/2017		<0.04		0.0074 (J)		<0.04			
1/16/2017	<0.04				<0.04				
1/18/2017								1.69	0.607
1/19/2017							1.15		
2/21/2017				<0.04					0.624
2/22/2017							1.3		
2/23/2017								1.76	
3/1/2017		<0.04 (*)							
3/2/2017	<0.04			0.008 (J)		0.0084 (J)			
3/3/2017									
3/8/2017						0.0189 (J)			
4/26/2017		<0.04			<0.04		0.0161 (J)		
4/27/2017	<0.04			0.0066 (J)					
4/28/2017									
5/3/2017									0.676
5/5/2017									
5/8/2017							1.51	2	
5/26/2017									
6/27/2017	0.006 (J)			0.0087 (J)					
6/28/2017		<0.04			<0.04				
6/30/2017					<0.04		0.0173 (J)	1.47	2.28
7/5/2017									
7/7/2017									
7/10/2017									0.58
10/3/2017	0.0071 (J)			0.0072 (J)					
10/4/2017		<0.04			<0.04	<0.04			
10/5/2017							0.0173 (J)		
10/6/2017								1.31	
10/9/2017									1.82
10/10/2017									0.612
6/5/2018				0.0052 (J)					

# Prediction Limit

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Constituent: Boron (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/6/2018	<0.04								
6/7/2018					0.004 (J)				
6/8/2018		<0.04				0.013 (J)			
6/11/2018				0.014 (J)					
6/12/2018							1.6		
6/13/2018								2.2	0.67
10/1/2018	0.0049 (J)	<0.04	0.021 (J)		<0.04	0.015 (J)			
10/2/2018				<0.04			1.4	1.9	0.62
10/3/2018									
3/28/2019	<0.04		0.005 (J)						
3/29/2019					0.014 (J)				
4/1/2019		<0.04		<0.04	<0.04		1.4	2.4	
4/2/2019									0.63
9/24/2019	0.0055 (J)		0.0064 (J)						
9/25/2019		<0.04		<0.04	0.0054 (J)	0.018 (J)			0.63
9/26/2019							1.5	1.9	
3/18/2020	0.0087 (J)					0.02 (J)			
3/19/2020		0.0053 (J)	0.0085 (J)	0.0052 (J)	0.0073 (J)				0.73
3/20/2020							1.4	2.1	

# Prediction Limit

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Constituent: Boron (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	0.97				
6/9/2016		2.2	0.88	2.3	
7/25/2016					
7/26/2016					
8/1/2016	0.932				
8/2/2016		2.22	0.872	2.21	
9/13/2016					
9/14/2016				<0.04	
9/15/2016					
9/19/2016					
9/20/2016	1.04				
9/21/2016		2.65	0.853	2.54	
11/1/2016					
11/2/2016					
11/4/2016				<0.04	
11/7/2016	0.852		0.815	2.49	
11/8/2016		2.44			
12/15/2016				0.0107 (J)	
1/10/2017					
1/11/2017					
1/16/2017				<0.04	
1/18/2017	0.972	1.88		2.04	
1/19/2017			0.803		
2/21/2017	0.972			2.29	
2/22/2017		2.05	0.855		
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017				<0.04	
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017				<0.04	
5/3/2017					
5/5/2017		3.01		3.41	
5/8/2017	1.05		0.884		
5/26/2017				<0.04	
6/27/2017					
6/28/2017				<0.04	
6/30/2017					
7/5/2017		2.7	0.811		
7/7/2017			3.01		
7/10/2017	0.855				
10/3/2017				<0.04	
10/4/2017					
10/5/2017		2.53	0.851		
10/6/2017					
10/9/2017			2.76		
10/10/2017	0.887				
6/5/2018					

# Prediction Limit

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Constituent: Boron (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					<0.04
6/8/2018					
6/11/2018			0.9		
6/12/2018		2.8		2.9	
6/13/2018	0.86				
10/1/2018					<0.04
10/2/2018	0.93		0.81		
10/3/2018		2.3		2.4	
3/28/2019					
3/29/2019					0.0065 (J)
4/1/2019		2.7	0.85		
4/2/2019	0.9			2.9	
9/24/2019					0.0076 (J)
9/25/2019	0.86		0.73		
9/26/2019		2.8		2.5	
3/18/2020					
3/19/2020		2.4		2.5	0.0073 (J)
3/20/2020	0.94		0.8		

## Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/1/2016	2.5	21	12						
6/2/2016				1.3	28	1.3			
6/8/2016							44	25	13
6/9/2016									
7/25/2016	2.16	20.3		1.17					
7/26/2016			11		24.5	1.24			
8/1/2016							36.3	21.4	12.2
8/2/2016									
9/13/2016	2.21		11.8						
9/14/2016		19.7							
9/15/2016					27	1.17			
9/19/2016				1.05					
9/20/2016							39.5	26.3	12.2
9/21/2016									
11/1/2016		18.4	11	1.14	25.6				
11/2/2016						1.23			
11/4/2016	2.67								
11/7/2016							34.9	26.1	12.1
11/8/2016									
12/15/2016									
1/10/2017						1.24			
1/11/2017		20.3	11.2		27.5				
1/16/2017	2.45			1.23					
1/18/2017								25.6	11.5
1/19/2017							37		
2/21/2017				1.25					11.7
2/22/2017							37.6		
2/23/2017								28.2	
3/1/2017		18.6							
3/2/2017	2.57		11		27.5				
3/3/2017									
3/8/2017						1.21			
4/26/2017		25.6		1.03	30.4	1.14			
4/27/2017	2.38		11.1						
4/28/2017									
5/3/2017									11.9
5/5/2017									
5/8/2017							35.7	27.2	
5/26/2017									
6/27/2017	2.36		13.8						
6/28/2017		23.9			29.8				
6/30/2017				1.13		1.24	36.2	27.2	
7/5/2017									
7/7/2017									
7/10/2017									12.7
10/3/2017	2.21		14						
10/4/2017		22.1		1.09	29.7				
10/5/2017						1.11			
10/6/2017							39.8		
10/9/2017								27.3	
10/10/2017									11.4
6/5/2018		15.2 (J)							

# Prediction Limit

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Constituent: Calcium (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/6/2018	2.3								
6/7/2018					29.1				
6/8/2018		21.9 (J)				1.1			
6/11/2018				1.1					
6/12/2018							36.2		
6/13/2018								29.4	12.5
10/1/2018	1.8	19.7	15.1		26.9	0.99			
10/2/2018				1.1			39.1	29.2	12.4 (J)
10/3/2018									
3/28/2019	2.2		13.3 (J)						
3/29/2019						1.1			
4/1/2019		20.4 (J)		1.3	30.1		38	27.4	
4/2/2019									11.9 (J)
9/24/2019	2.3		15.8						
9/25/2019		22.4		1.1	29.5	1.1			11.6
9/26/2019							37.5	24.2	
3/18/2020	2.1					1.1			
3/19/2020		21.9	15	1.2	31.5				13
3/20/2020							42.1	30.3	

# Prediction Limit

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Constituent: Calcium (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	15				
6/9/2016		36	12	26	
7/25/2016					
7/26/2016					
8/1/2016	14.5				
8/2/2016		35.5	11.7	25.8	
9/13/2016					
9/14/2016					23.5
9/15/2016					
9/19/2016					
9/20/2016	15.3				
9/21/2016		33.2	11.1	24.9	
11/1/2016					
11/2/2016					
11/4/2016					23.7
11/7/2016	13.8		11.4	25.1	
11/8/2016		33.8			
12/15/2016					23.1
1/10/2017					
1/11/2017					
1/16/2017					23.3
1/18/2017	15.1	33.4		26.1	
1/19/2017			12		
2/21/2017	14.6			29	
2/22/2017		33.8	11.2		
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017					25.1
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					30.7
5/3/2017					
5/5/2017		33.5		28.1	
5/8/2017	15.2		11.2		
5/26/2017					26.2
6/27/2017					
6/28/2017					26.1
6/30/2017					
7/5/2017		33.4	11.9		
7/7/2017					28.6
7/10/2017	17.4				
10/3/2017					26.7
10/4/2017					
10/5/2017		36.4	12		
10/6/2017					
10/9/2017					27.3
10/10/2017	15.5				
6/5/2018					

# Prediction Limit

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Constituent: Calcium (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					25
6/8/2018					
6/11/2018			12.1		
6/12/2018		33.4		26.4	
6/13/2018	15.5				
10/1/2018				25	
10/2/2018	14.7		11.7 (J)		
10/3/2018		32.6		25.8	
3/28/2019					
3/29/2019				23.5 (J)	
4/1/2019		33.8	11.9 (J)		
4/2/2019	16.1 (J)			25.7	
9/24/2019					26.4
9/25/2019	15.6		10.7		
9/26/2019		32		26.1	
3/18/2020					
3/19/2020		37.3		30.4	27.4
3/20/2020	17.1		12.7		

## Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/1/2016	1.6	1.3	1.3						
6/2/2016				1.9	1.4	4.1			
6/8/2016							22	14	18
6/9/2016									
7/25/2016	1.4	1.3		1.7					
7/26/2016			1.2		1.6	4			
8/1/2016							21	13	16
8/2/2016									
9/13/2016	1.3		1.1						
9/14/2016		1.3							
9/15/2016					1.5	4.2			
9/19/2016				1.6					
9/20/2016							22	13	18
9/21/2016									
11/1/2016		1.4	1.3	1.8	1.7				
11/2/2016						4.9			
11/4/2016	1.6								
11/7/2016							24	14	16
11/8/2016									
12/15/2016									
1/10/2017						4.1			
1/11/2017		1.1	1.1		1.2				
1/16/2017	1.4			1.7					
1/18/2017								14	17
1/19/2017							22		
2/21/2017				1.7					16
2/22/2017							21		
2/23/2017								14	
3/1/2017		1.1							
3/2/2017	1.3		1		1.2				
3/3/2017									
3/8/2017						4.2			
4/26/2017		1.1		1.7	1.2	4.1			
4/27/2017	1.3		1						
4/28/2017									
5/3/2017									17
5/5/2017									
5/8/2017							22	14	
5/26/2017									
6/27/2017	1.4		1.1						
6/28/2017		1.2			1.3				
6/30/2017				1.8		3.7	21	14	
7/5/2017									
7/7/2017									
7/10/2017									15
10/3/2017	1.7		1.1						
10/4/2017		1.2		1.8	1.5				
10/5/2017						3.8			
10/6/2017							21		
10/9/2017								14	
10/10/2017									15
6/5/2018		1.1							

# Prediction Limit

Page 2

Constituent: Chloride (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/6/2018	1.4								
6/7/2018					1.2				
6/8/2018		1.2					3.4		
6/11/2018			2						
6/12/2018							19.8		
6/13/2018								13.1	14.2
10/1/2018	1.4	1.2	1.1		1.5	3.8			
10/2/2018				1.8			19.9	13.8	14
10/3/2018									
3/28/2019	1.5		1.4						
3/29/2019						4.2			
4/1/2019		1.1		1.7	1.2		19.7	14.2	
4/2/2019									13.5
9/24/2019	1.3		1.1						
9/25/2019		1.1		1.6	1.1	4.8			14.4
9/26/2019							19.6	14.3	
3/18/2020	1.4					5.2			
3/19/2020		1.1	1.1	1.8	1.2				15.4
3/20/2020							17.7	13	

# Prediction Limit

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Constituent: Chloride (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	19				
6/9/2016		18	15	19	
7/25/2016					
7/26/2016					
8/1/2016	17				
8/2/2016		18	14	18	
9/13/2016					
9/14/2016					1.1
9/15/2016					
9/19/2016					
9/20/2016	18				
9/21/2016		18	14	19	
11/1/2016					
11/2/2016					
11/4/2016					1.4
11/7/2016	17		14	20	
11/8/2016		18			
12/15/2016					2.9
1/10/2017					
1/11/2017					
1/16/2017					0.98
1/18/2017	19	18		20	
1/19/2017			14		
2/21/2017	18			19	
2/22/2017		18	13		
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017					1.1
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					0.91
5/3/2017					
5/5/2017		19		21	
5/8/2017	18		15		
5/26/2017					0.93
6/27/2017					
6/28/2017					1
6/30/2017					
7/5/2017		18	14		
7/7/2017				20	
7/10/2017	19				
10/3/2017					1.2
10/4/2017					
10/5/2017		19	15		
10/6/2017					
10/9/2017				20	
10/10/2017	19				
6/5/2018					

# Prediction Limit

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Constituent: Chloride (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					1
6/8/2018					
6/11/2018			13.6		
6/12/2018		17.6		19.3	
6/13/2018	18.1				
10/1/2018				1.1	
10/2/2018	18.3		13.4		
10/3/2018		17.7		20.2	
3/28/2019					
3/29/2019				1.2	
4/1/2019		17.2	13.1		
4/2/2019	17.9			19.5	
9/24/2019					0.95 (J)
9/25/2019	17.1		11.3		
9/26/2019		17.3		19.5	
3/18/2020					
3/19/2020		16		18.1	0.97 (J)
3/20/2020	17.7		11.3		

## Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-3I (bg)	YGWA-1I (bg)	YGWA-1D (bg)	YGWA-14S (bg)	YGWA-3D (bg)	YGWA-30I (bg)	YGWC-26S	YGWC-26I	YGWC-27S
6/1/2016	0.15 (J)	<0.3	0.12 (J)						
6/2/2016				<0.3	0.62	<0.3			
6/8/2016							<0.3	0.094 (J)	0.12 (J)
6/9/2016									
7/25/2016	0.14 (J)	0.06 (J)				0.06 (J)			
7/26/2016			0.08 (J)	0.02 (J)	0.49				
8/1/2016							0.24 (J)	0.08 (J)	0.22 (J)
8/2/2016									
9/13/2016		<0.3	0.11 (J)						
9/14/2016	0.18 (J)								
9/15/2016				<0.3	0.54				
9/19/2016						<0.3			
9/20/2016							0.03 (J)	0.05 (J)	0.32
9/21/2016									
11/1/2016	<0.3 (*)		<0.3 (*)		0.68	<0.3 (*)			
11/2/2016				<0.3 (*)					
11/4/2016		<0.3 (*)							
11/7/2016							0.44	<0.3 (*)	<0.3 (*)
11/8/2016									
12/15/2016									
1/10/2017			<0.3						
1/11/2017	0.09 (J)		0.05 (J)		0.49				
1/16/2017		<0.3 (*)				<0.3			
1/18/2017							<0.3 (*)	0.11 (J)	
1/19/2017									0.25 (J)
2/21/2017						<0.3 (*)	<0.3 (*)	<0.3 (*)	
2/22/2017									0.21 (J)
2/23/2017									
3/1/2017	<0.3 (*)								
3/2/2017		<0.3 (*)	<0.3 (*)		0.48				
3/3/2017									
3/8/2017				<0.3 (*)					
4/26/2017	0.08 (J)			<0.3	0.48	<0.3			
4/27/2017		0.01 (J)	0.04 (J)						
4/28/2017									
5/3/2017							0.16 (J)		
5/5/2017									
5/8/2017								0.08 (J)	0.19 (J)
5/26/2017									
6/27/2017		<0.3 (*)	<0.3 (*)						
6/28/2017	0.12 (J)				0.47				
6/30/2017				<0.3		<0.3 (*)			0.2 (J)
7/5/2017									
7/7/2017									
7/10/2017							<0.3 (*)	<0.3 (*)	
10/3/2017		<0.3	<0.3 (*)						
10/4/2017	<0.3 (*)				<0.3 (*)	<0.3			
10/5/2017				<0.3					
10/6/2017									<0.3 (*)
10/9/2017									
10/10/2017							<0.3	<0.3	
3/27/2018		<0.3		<0.3		<0.3			

# Prediction Limit

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Constituent: Fluoride (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-3I (bg)	YGWA-1I (bg)	YGWA-1D (bg)	YGWA-14S (bg)	YGWA-3D (bg)	YGWA-30I (bg)	YGWC-26S	YGWC-26I	YGWC-27S
3/28/2018	<0.3				0.56				
3/29/2018			<0.3						0.49
3/30/2018							0.35	<0.3	
6/5/2018			0.055 (J)						
6/6/2018		<0.3							
6/7/2018					0.48				
6/8/2018	0.2 (J)			<0.3					
6/11/2018						<0.3			
6/12/2018									0.037 (J)
6/13/2018							0.044 (J)	0.088 (J)	
10/1/2018	<0.3	<0.3	<0.3	<0.3	0.44				
10/2/2018						<0.3	<0.3	<0.3	<0.3
10/3/2018						<0.3			
2/26/2019				<0.3		<0.3			
2/27/2019	0.13 (J)	<0.3	0.052 (J)		0.53		<0.3	<0.3	0.14 (J)
3/28/2019		<0.3	0.036 (J)						
3/29/2019				<0.3					
4/1/2019	0.1 (J)				0.45	<0.3			0.088 (J)
4/2/2019							<0.3	0.071 (J)	
9/24/2019		<0.3	0.063 (J)						
9/25/2019	0.1 (J)				<0.3	0.46	<0.3	<0.3	0.064 (J)
9/26/2019									0.22 (J)
2/10/2020		<0.3	0.061 (J)						
2/11/2020	0.094 (J)								
2/12/2020				<0.3	0.4	<0.3			
2/13/2020							<0.3	<0.3	0.11 (J)
3/18/2020		<0.3		<0.3					
3/19/2020	0.11 (J)		0.064 (J)		0.51	<0.3	<0.3		
3/20/2020								0.06 (J)	0.097 (J)

# Prediction Limit

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Constituent: Fluoride (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27I	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	0.086 (J)				
6/9/2016		0.085 (J)	0.16 (J)	0.098 (J)	
7/25/2016					
7/26/2016					
8/1/2016	0.14 (J)				
8/2/2016		0.09 (J)	0.5	0.38	
9/13/2016					
9/14/2016					0.08 (J)
9/15/2016					
9/19/2016					
9/20/2016	<0.3				
9/21/2016		0.09 (J)	0.25 (J)	0.08 (J)	
11/1/2016					
11/2/2016					
11/4/2016					<0.3 (*)
11/7/2016	<0.3 (*)	<0.3 (*)	0.27 (J)		
11/8/2016				0.24 (J)	
12/15/2016					0.06 (J)
1/10/2017					
1/11/2017					
1/16/2017					0.1 (J)
1/18/2017	<0.3 (*)		0.34	0.12 (J)	
1/19/2017		<0.3 (*)			
2/21/2017			0.27 (J)		
2/22/2017		<0.3 (*)		<0.3 (*)	
2/23/2017	<0.3 (*)				
3/1/2017					
3/2/2017					
3/3/2017					<0.3 (*)
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					0.06 (J)
5/3/2017					
5/5/2017			0.2 (J)	0.08 (J)	
5/8/2017	0.07 (J)	0.06 (J)			
5/26/2017					0.09 (J)
6/27/2017					
6/28/2017					0.11 (J)
6/30/2017	<0.3 (*)				
7/5/2017		0.08 (J)		0.11 (J)	
7/7/2017			0.18 (J)		
7/10/2017					
10/3/2017					<0.3 (*)
10/4/2017					
10/5/2017		<0.3 (*)		<0.3 (*)	
10/6/2017					
10/9/2017	<0.3 (*)		<0.3 (*)		
10/10/2017					
3/27/2018					

# Prediction Limit

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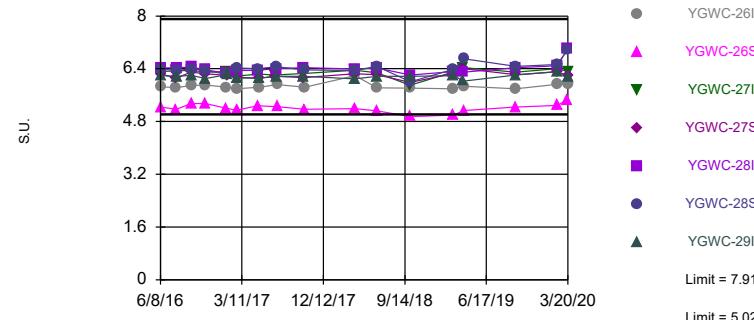
Constituent: Fluoride (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27I	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
3/28/2018					0.31
3/29/2018	<0.3	<0.3			
3/30/2018			<0.3	<0.3	
6/5/2018					
6/6/2018					
6/7/2018					0.11 (J)
6/8/2018					
6/11/2018		<0.3			
6/12/2018			0.13 (J)	<0.3	
6/13/2018	<0.3				
10/1/2018					<0.3
10/2/2018	<0.3	<0.3			
10/3/2018			0.31	<0.3	
2/26/2019					
2/27/2019	<0.3	0.15 (J)	0.22 (J)	0.14 (J)	0.12 (J)
3/28/2019					
3/29/2019					0.13 (J)
4/1/2019	0.034 (J)	0.059 (J)		0.078 (J)	
4/2/2019			0.14 (J)		
9/24/2019					0.081 (J)
9/25/2019		0.054 (J)			
9/26/2019	0.14 (J)		0.28 (J)	0.29 (J)	
2/10/2020					
2/11/2020					0.075 (J)
2/12/2020					
2/13/2020	<0.3	0.053 (J)	0.18 (J)	0.14 (J)	
3/18/2020					
3/19/2020			0.16 (J)	0.07 (J)	0.093 (J)
3/20/2020	<0.3	0.057 (J)			

Within Limits

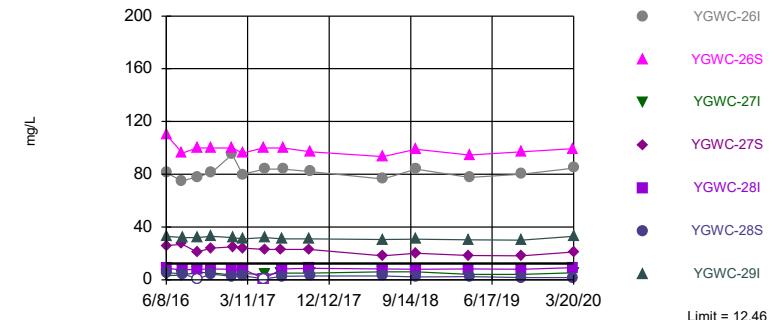
Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 119 background values. Annual per-constituent alpha = 0.003855. Individual comparison alpha = 0.0002756 (1 of 2). Comparing 7 points to limit.

Exceeds Limit: YGWC-26I, YGWC-26S,  
YGWC-27S, YGWC-29I

Prediction Limit  
Interwell Parametric



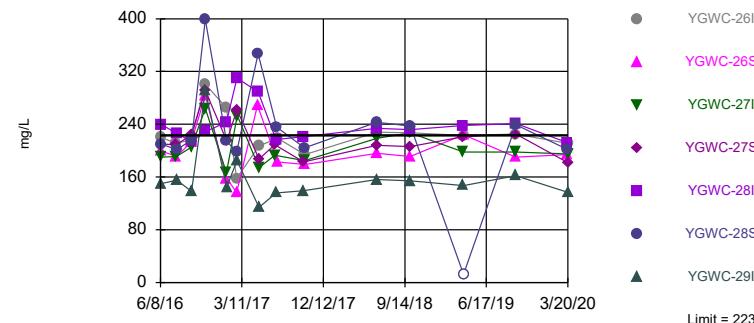
Background Data Summary: Mean=6.415, Std. Dev.=3.211, n=98, 2.041% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.979, critical = 0.966. Kappa = 1.882 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: pH Analysis Run 5/12/2020 3:54 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Constituent: Sulfate Analysis Run 5/12/2020 3:54 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 98 background values. 2.041% NDs. Annual per-constituent alpha = 0.002821. Individual comparison alpha = 0.0002018 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/12/2020 3:54 PM View: Appendix III  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-3I (bg)	YGWA-1I (bg)	YGWA-1D (bg)	YGWA-14S (bg)	YGWA-3D (bg)	YGWA-30I (bg)	YGWC-26I	YGWC-26S	YGWC-27S
6/1/2016	7.72	6.33	7.46						
6/2/2016				5.46	7.84	5.75			
6/8/2016							5.85	5.24	6.24
6/9/2016									
7/25/2016	7.74	6.21				5.82			
7/26/2016			7.43	5.45	7.88				
8/1/2016							5.83	5.17	6.12
8/2/2016									
9/13/2016		6.16	7.44						
9/14/2016	7.65								
9/15/2016				5.45	7.74				
9/19/2016						5.78 (D)			
9/20/2016							5.89	5.35	6.3
9/21/2016									
11/1/2016	7.7		7.24		7.75	5.62			
11/2/2016				5.41					
11/4/2016		6.29							
11/7/2016							5.91	5.35	6.25
11/8/2016									
12/15/2016									
1/10/2017			5.37						
1/11/2017	7.53		7.3		7.66				
1/16/2017		6.29				5.72			
1/18/2017							5.84	5.2	
1/19/2017									6.2
2/21/2017						5.67	5.79	5.14	
2/22/2017									6.14
2/23/2017									
3/1/2017	7.42								
3/2/2017		6.28	7.23		7.68				
3/3/2017									
3/8/2017				5.41					
4/26/2017	7.4			5.02	7.45	5.56			
4/27/2017		6.09	6.99						
4/28/2017									
5/3/2017							5.28		
5/5/2017									
5/8/2017							5.84		6.11
5/26/2017									
6/27/2017		6.21	6.87						
6/28/2017	7.5				7.65				
6/30/2017				5.39		5.72			6.17
7/5/2017									
7/7/2017									
7/10/2017							5.92	5.25	
10/3/2017		5.98	6.81						
10/4/2017	7.45				7.49	5.87			
10/5/2017				5.49					
10/6/2017									6.13
10/9/2017									
10/10/2017							5.84	5.17	
3/27/2018		6.25		5.47		5.83			

# Prediction Limit

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Constituent: pH (S.U.) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-3I (bg)	YGWA-1I (bg)	YGWA-1D (bg)	YGWA-14S (bg)	YGWA-3D (bg)	YGWA-30I (bg)	YGWC-26I	YGWC-26S	YGWC-27S
3/28/2018	7.74				7.91				
3/29/2018			7.38					6.25	
3/30/2018							6.19	5.19	
6/5/2018			7.16						
6/6/2018		6.17				7.69			
6/7/2018									
6/8/2018	7.64			5.45			5.69		
6/11/2018									
6/12/2018								6.22	
6/13/2018							5.82	5.12	
10/1/2018	7.47	5.9	6.8	5.39	7.39				
10/2/2018						5.39	5.81	4.95	5.99
10/3/2018									
2/26/2019				5.46		5.77			
2/27/2019	7.54	5.8	6.84		7.55		5.79	5	6.26
3/28/2019		6.15	6.99						
3/29/2019				5.34					
4/1/2019	7.74				7.87	5.62			6.4
4/2/2019							5.87	5.13	
9/24/2019		6.23	7.07						
9/25/2019	7.47			5.19	7.64	5.69	5.79	5.24	
9/26/2019									6.22
2/10/2020		6.1	7.2						
2/11/2020	7.09								
2/12/2020				5.48	7.83	5.8			
2/13/2020							5.93	5.29	6.31
3/18/2020		6.19		5.38					
3/19/2020	7.31		7.03		7.65	6		5.46	
3/20/2020							5.94		6.18

# Prediction Limit

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Constituent: pH (S.U.) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27I	YGWC-28S	YGWC-28I	YGWC-29I	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	6.32				
6/9/2016		6.39	6.42	6.19	
7/25/2016					
7/26/2016					
8/1/2016	6.34				
8/2/2016		6.35	6.43	6.17	
9/13/2016					7.41
9/14/2016					
9/15/2016					
9/19/2016					
9/20/2016	6.36				
9/21/2016		6.39	6.45	6.2	
11/1/2016					
11/2/2016					
11/4/2016					7.12
11/7/2016	6.3	6.36		6.1	
11/8/2016				6.37	
12/15/2016					7.24
1/10/2017					
1/11/2017					
1/16/2017					7.24
1/18/2017	6.31	6.23	6.27		
1/19/2017					6.22
2/21/2017		6.42			
2/22/2017			6.35	6.12	
2/23/2017	6.18				
3/1/2017					
3/2/2017					
3/3/2017					7.22
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					7.21
5/3/2017					
5/5/2017		6.4	6.36		
5/8/2017	6.24			6.11	
5/26/2017					7.13
6/27/2017					
6/28/2017					7.06
6/30/2017	6.21				
7/5/2017			6.4	6.17	
7/7/2017		6.46			
7/10/2017					
10/3/2017					6.99
10/4/2017					
10/5/2017			6.43	6.17	
10/6/2017					
10/9/2017	6.26	6.37			
10/10/2017					
3/27/2018					

# Prediction Limit

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Constituent: pH (S.U.) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27I	YGWC-28S	YGWC-28I	YGWC-29I	YGWA-2I (bg)
3/28/2018					7.3
3/29/2018	6.36				6.09
3/30/2018		6.35	6.39		
6/5/2018					
6/6/2018					
6/7/2018					7.29
6/8/2018					
6/11/2018					6.17
6/12/2018		6.47	6.42		
6/13/2018	6.28				
10/1/2018					7.07
10/2/2018	5.9				6.17
10/3/2018		6.01	6.21		
2/26/2019					
2/27/2019	6.31	6.38	6.32	6.19	7.27
3/28/2019					
3/29/2019					7.06
4/1/2019	6.43		6.3	6.03	
4/2/2019		6.7			
9/24/2019					7.01
9/25/2019					6.21
9/26/2019	6.3	6.47	6.43		
2/10/2020					
2/11/2020					7.38
2/12/2020					
2/13/2020	6.4	6.53	6.49	6.32	
3/18/2020					
3/19/2020		6.98	7.01		7.22
3/20/2020	6.32			6.17	

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/1/2016	4.2	12	5						
6/2/2016				1.3	5.8	6.6			
6/8/2016							26	3.2	110
6/9/2016									
7/25/2016	3.7	8.4		1.2					
7/26/2016			5.4		6.7	6.1			
8/1/2016							27	3.6	96
8/2/2016									
9/13/2016	5.2		2.9						
9/14/2016		8.6							
9/15/2016					6	6.1			
9/19/2016				1.2					
9/20/2016							21	5.6	100
9/21/2016									
11/1/2016		8.9	3.9	1.3	4.9				
11/2/2016						6.3			
11/4/2016	5								
11/7/2016							24	5.4	100
11/8/2016									
12/15/2016									
1/10/2017						5.9			
1/11/2017		8.6	3.7		4.5				
1/16/2017	7.9			<1.5 (*)					
1/18/2017								3.5	100
1/19/2017							25		
2/21/2017				1.4					96
2/22/2017							24		
2/23/2017								4.9	
3/1/2017		9.3							
3/2/2017	7.4		4.6		4.4				
3/3/2017									
3/8/2017						7			
4/26/2017		11		1.4	5.1	7			
4/27/2017	7.4		5.2						
4/28/2017									
5/3/2017									100
5/5/2017									
5/8/2017							23	3.9	
5/26/2017									
6/27/2017	6.4		5.9						
6/28/2017		12			5.4				
6/30/2017				<1.5 (*)		6.5	23	5	
7/5/2017									
7/7/2017									
7/10/2017									100
10/3/2017	5.9		6.6						
10/4/2017		12		1.4	6.2				
10/5/2017						7.9			
10/6/2017							23		
10/9/2017								5.1	
10/10/2017									97
6/5/2018		6.4							

# Prediction Limit

Page 2

Constituent: Sulfate (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/6/2018	4.4								
6/7/2018					6.7				
6/8/2018		9.6				6.4			
6/11/2018				1.1					
6/12/2018							18.1		
6/13/2018								6.1	93.3
10/1/2018	4	9.1	5.6		7.1	6.8			
10/2/2018				1			20.2	6.1	99
10/3/2018									
3/28/2019	4.3		8						
3/29/2019						7.3			
4/1/2019		8.5		0.96 (J)	7.2		18.3	4.1	
4/2/2019									94.5
9/24/2019	4.3		5.3						
9/25/2019		13.8		0.81 (J)	7	6.6			97
9/26/2019							18.2	4.2	
3/18/2020	5.3					8.1			
3/19/2020		12.9	10	1.6	9				99.4
3/20/2020							21.1	5.2	

# Prediction Limit

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Constituent: Sulfate (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	81				
6/9/2016		8.7	33	5.2	
7/25/2016					
7/26/2016					
8/1/2016	75				
8/2/2016		7.5	32	4.5	
9/13/2016					
9/14/2016				9.4	
9/15/2016					
9/19/2016					
9/20/2016	78				
9/21/2016		8	32	<1.5 (*)	
11/1/2016					
11/2/2016					
11/4/2016				13	
11/7/2016	81		33	4.3	
11/8/2016		8.3			1.8
12/15/2016					
1/10/2017					
1/11/2017					
1/16/2017				11	
1/18/2017	95	8		2.7	
1/19/2017			32		
2/21/2017	80			3	
2/22/2017		8.2	31		
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017				8.8	
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017				10	
5/3/2017					
5/5/2017		<1.5 (*)		<1.5 (*)	
5/8/2017	84		32		
5/26/2017				12	
6/27/2017					
6/28/2017				11	
6/30/2017					
7/5/2017		8.1	31		
7/7/2017				2.7	
7/10/2017	84				
10/3/2017				7.9	
10/4/2017					
10/5/2017		8.6	31		
10/6/2017					
10/9/2017				2.9	
10/10/2017	82				
6/5/2018					

# Prediction Limit

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Constituent: Sulfate (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					8.8
6/8/2018					
6/11/2018			30.6		
6/12/2018		8.2		2.9	
6/13/2018	76.5				
10/1/2018					9.1
10/2/2018	83.9		30.8		
10/3/2018		8		2.1	
3/28/2019					
3/29/2019					9
4/1/2019		8.2	30.4		
4/2/2019	77.6			2.4	
9/24/2019					9.1
9/25/2019	80.1		30		
9/26/2019		7.9		1.6	
3/18/2020					
3/19/2020		9.1		1.7	12.4
3/20/2020	84.7		33		

## Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/1/2016	54	150	120						
6/2/2016				36	130	46			
6/8/2016							210	190	200
6/9/2016									
7/25/2016	48	135		50					
7/26/2016			94		141	54			
8/1/2016							209	191	191
8/2/2016									
9/13/2016	67		105						
9/14/2016		127							
9/15/2016					153	54			
9/19/2016				35					
9/20/2016							224	205	213
9/21/2016									
11/1/2016		75	44	<25	92				
11/2/2016						71			
11/4/2016	60								
11/7/2016							291	264	284
11/8/2016									
12/15/2016									
1/10/2017						45			
1/11/2017		148	107		159				
1/16/2017	65			47					
1/18/2017								167 (D)	158 (D)
1/19/2017							215 (D)		
2/21/2017				<25					137
2/22/2017							262		
2/23/2017								253	
3/1/2017		182							
3/2/2017	61		98		117				
3/3/2017									
3/8/2017						178			
4/26/2017		92		55	181	52			
4/27/2017	31		116						
4/28/2017									
5/3/2017								269	
5/5/2017									
5/8/2017							187	174	
5/26/2017									
6/27/2017	42		89						
6/28/2017		126			169				
6/30/2017				42		45	209	193	
7/5/2017									
7/7/2017									
7/10/2017									183
10/3/2017	58		119						
10/4/2017		147		31	141				
10/5/2017						40			
10/6/2017							183		
10/9/2017								185	
10/10/2017									179
6/5/2018		127							

# Prediction Limit

Page 2

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-14S (bg)	YGWC-27S	YGWC-27I	YGWC-26S
6/6/2018	96								
6/7/2018					95				
6/8/2018		158				114			
6/11/2018				59					
6/12/2018							208		
6/13/2018								219	196
10/1/2018	60	138	117		165	50			
10/2/2018				57			206	227	191
10/3/2018									
3/28/2019	87		87						
3/29/2019						63			
4/1/2019		19 (J)		54	149		221	198	
4/2/2019									224
9/24/2019	54		124						
9/25/2019		159		51	157	64			190
9/26/2019							225	198	
3/18/2020	35					57			
3/19/2020		148	116	47	146				194
3/20/2020							182	195	

# Prediction Limit

Page 3

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	220				
6/9/2016		240	150	210	
7/25/2016					
7/26/2016					
8/1/2016	211				
8/2/2016		226	155	202	
9/13/2016					
9/14/2016					152
9/15/2016					
9/19/2016					
9/20/2016	217				
9/21/2016		214	138	216	
11/1/2016					
11/2/2016					
11/4/2016					148
11/7/2016	301		291	399	
11/8/2016		229			
12/15/2016					191
1/10/2017					
1/11/2017					
1/16/2017					180
1/18/2017	265 (D)	243 (D)		215 (D)	
1/19/2017			145 (D)		
2/21/2017	158			198	
2/22/2017		310	185		
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017					156
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					130
5/3/2017					
5/5/2017		289		347	
5/8/2017	207		114		
5/26/2017					223
6/27/2017					
6/28/2017					166
6/30/2017					
7/5/2017		217	136		
7/7/2017					236
7/10/2017	219				
10/3/2017					153
10/4/2017					
10/5/2017		221	139		
10/6/2017					
10/9/2017					204
10/10/2017	194				
6/5/2018					

# Prediction Limit

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Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2020 3:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-28I	YGWC-29I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					146
6/8/2018					
6/11/2018			156		
6/12/2018		234		243	
6/13/2018	228				
10/1/2018				155	
10/2/2018	227		154		
10/3/2018		232		237	
3/28/2019					
3/29/2019				150	
4/1/2019		238	147		
4/2/2019	223			<25	
9/24/2019					146
9/25/2019	225		162		
9/26/2019		241		239	
3/18/2020					
3/19/2020		212		202	148
3/20/2020	211		137		

## FIGURE F.

## Appendix III Trend Tests - PL Exceedances - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:59 PM

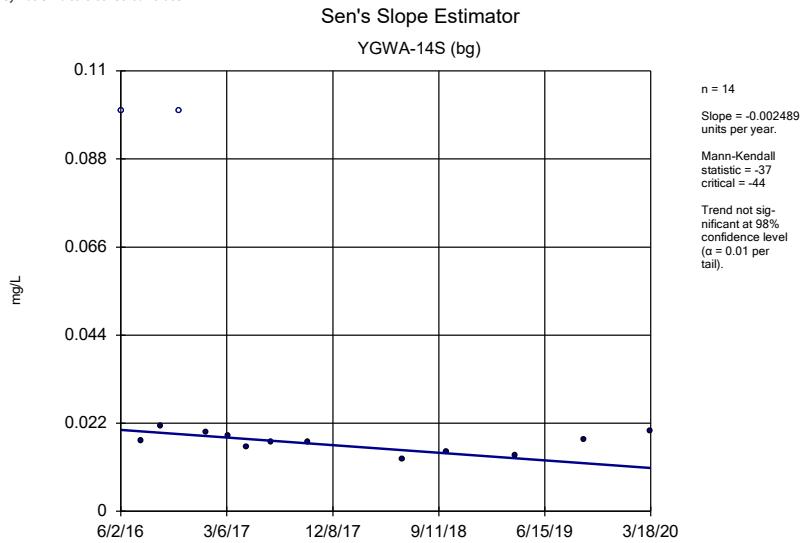
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	YGWA-14S (bg)	-0.05271	-60	-44	Yes	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-1D (bg)	1.11	48	44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-26S	-1.022	-55	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-27S	-0.9221	-63	-44	Yes	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-29I	-0.605	-47	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-1D (bg)	1.261	51	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-3D (bg)	0.7245	46	44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWC-27S	-2.238	-55	-44	Yes	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWC-29I	-0.6353	-49	-44	Yes	14	0	n/a	n/a	0.02	NP

### Appendix III Trend Tests - PL Exceedances - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 3:59 PM

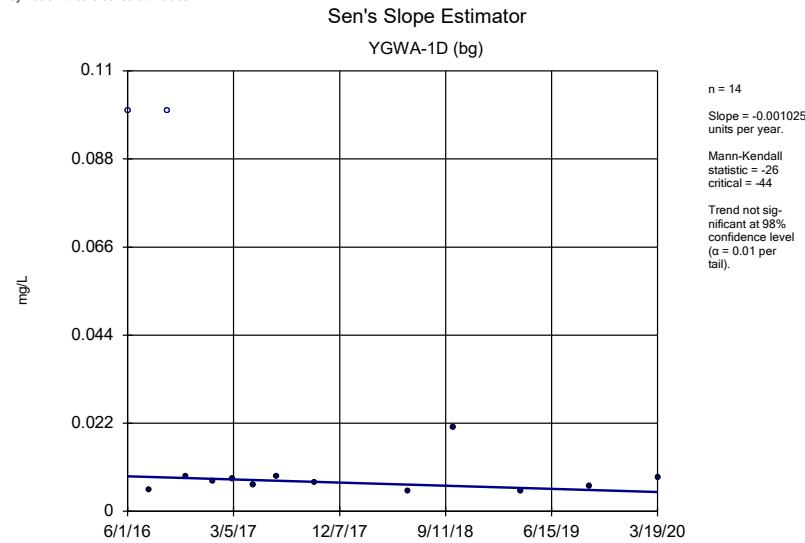
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWA-14S (bg)	-0.002489	-37	-44	No	14	14.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-1D (bg)	-0.001025	-26	-44	No	14	14.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-1I (bg)	0	-33	-44	No	14	64.29	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-2I (bg)	0	-26	-44	No	14	71.43	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-30I (bg)	0	-19	-44	No	14	85.71	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-3D (bg)	0	-13	-44	No	14	57.14	n/a	n/a	0.02	NP
Boron (mg/L)	YGWA-3I (bg)	0	-13	-44	No	14	92.86	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-26I	-0.01726	-15	-44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-26S	0.005659	17	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-27I	0.02751	6	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-27S	0.02086	19	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-28I	0.1086	27	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-28S	0.08094	21	44	No	14	0	n/a	n/a	0.02	NP
Boron (mg/L)	YGWC-29I	-0.01791	-35	-44	No	14	0	n/a	n/a	0.02	NP
<b>Calcium (mg/L)</b>	<b>YGWA-14S (bg)</b>	<b>-0.05271</b>	<b>-60</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
<b>Calcium (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>1.11</b>	<b>48</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Calcium (mg/L)	YGWA-1I (bg)	-0.1025	-37	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-2I (bg)	0.9579	31	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-30I (bg)	-0.0134	-7	-44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-3D (bg)	1.219	40	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWA-3I (bg)	0.4381	18	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWC-27S	0.4551	10	44	No	14	0	n/a	n/a	0.02	NP
Calcium (mg/L)	YGWC-28I	-0.3982	-15	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-14S (bg)	0	6	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-1D (bg)	0	-11	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-1I (bg)	0	-5	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-2I (bg)	-0.03701	-16	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-30I (bg)	0	4	44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-3D (bg)	-0.07067	-33	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWA-3I (bg)	-0.04953	-37	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-26I	0	-9	-44	No	14	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>YGWC-26S</b>	<b>-1.022</b>	<b>-55</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	YGWC-27I	0	13	44	No	14	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>YGWC-27S</b>	<b>-0.9221</b>	<b>-63</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Chloride (mg/L)	YGWC-28I	-0.215	-39	-44	No	14	0	n/a	n/a	0.02	NP
Chloride (mg/L)	YGWC-28S	0.02755	11	44	No	14	0	n/a	n/a	0.02	NP
<b>Chloride (mg/L)</b>	<b>YGWC-29I</b>	<b>-0.605</b>	<b>-47</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-14S (bg)	0.3425	40	44	No	14	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWA-1D (bg)</b>	<b>1.261</b>	<b>51</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-1I (bg)	-0.1237	-7	-44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-2I (bg)	0	0	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWA-30I (bg)	-0.05321	-7	-44	No	14	14.29	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWA-3D (bg)</b>	<b>0.7245</b>	<b>46</b>	<b>44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWA-3I (bg)	0.6413	31	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWC-26I	0.7464	13	44	No	14	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	YGWC-26S	-0.5868	-29	-44	No	14	0	n/a	n/a	0.02	NP
<b>Sulfate (mg/L)</b>	<b>YGWC-27S</b>	<b>-2.238</b>	<b>-55</b>	<b>-44</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.02</b>	<b>NP</b>
Sulfate (mg/L)	YGWC-29I	-0.6353	-49	-44	Yes	14	0	n/a	n/a	0.02	NP

Sanitas™ v.9.6.25 Groundwater Stats Consulting. UG  
Hollow symbols indicate censored values.



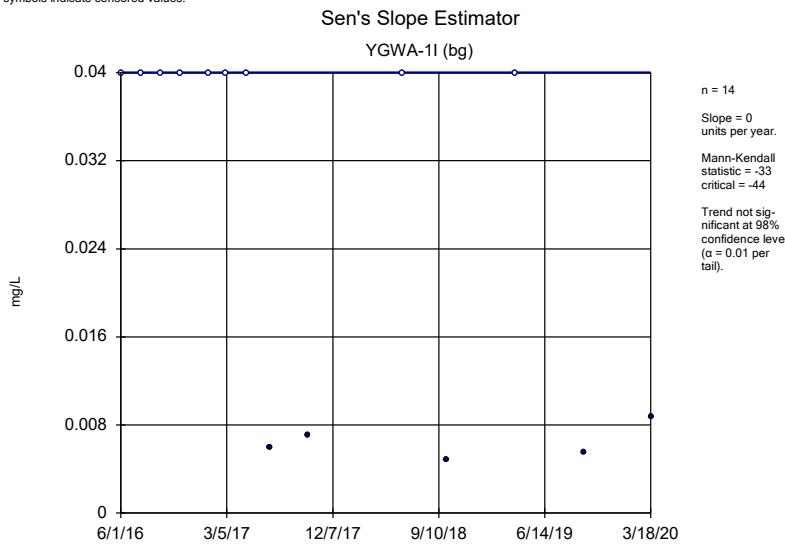
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.25 Groundwater Stats Consulting. UG  
Hollow symbols indicate censored values.



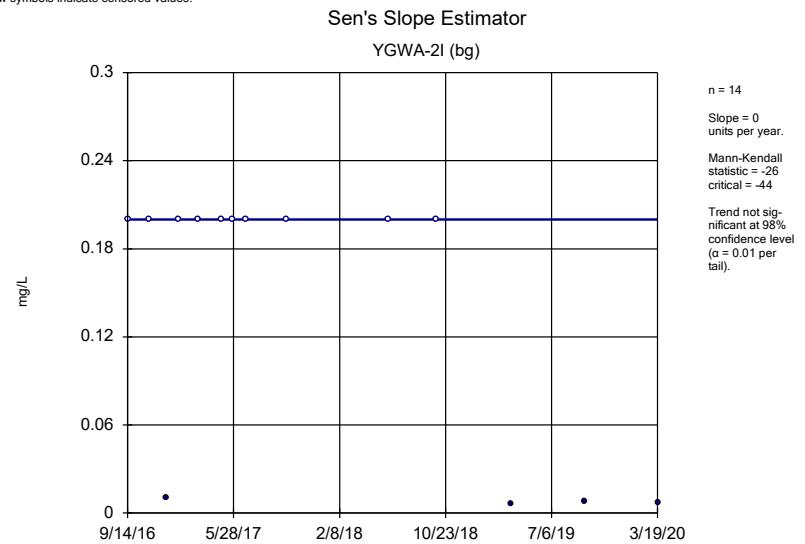
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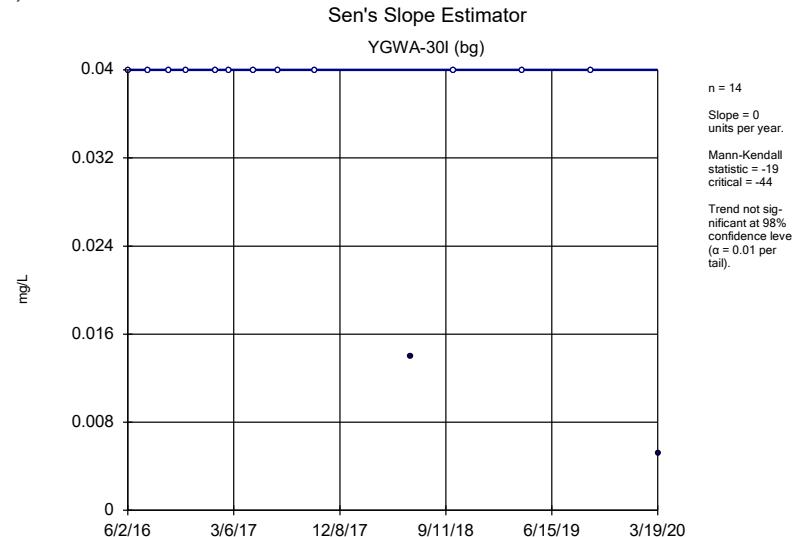
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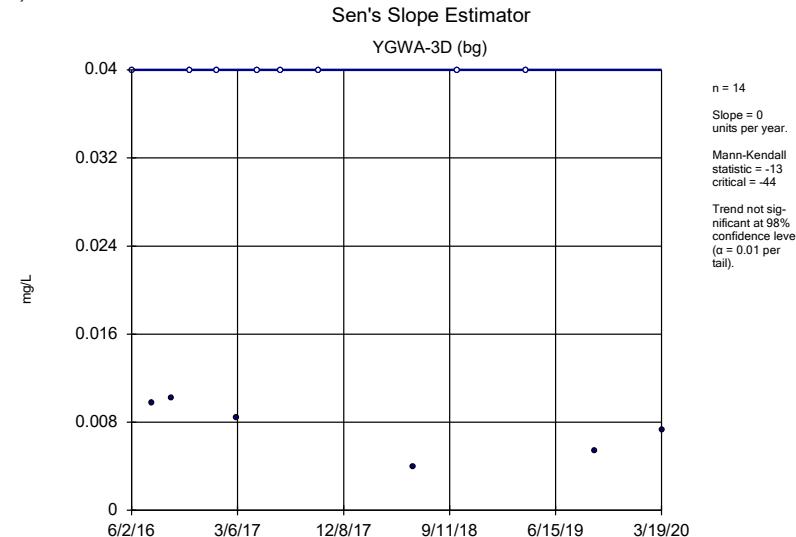
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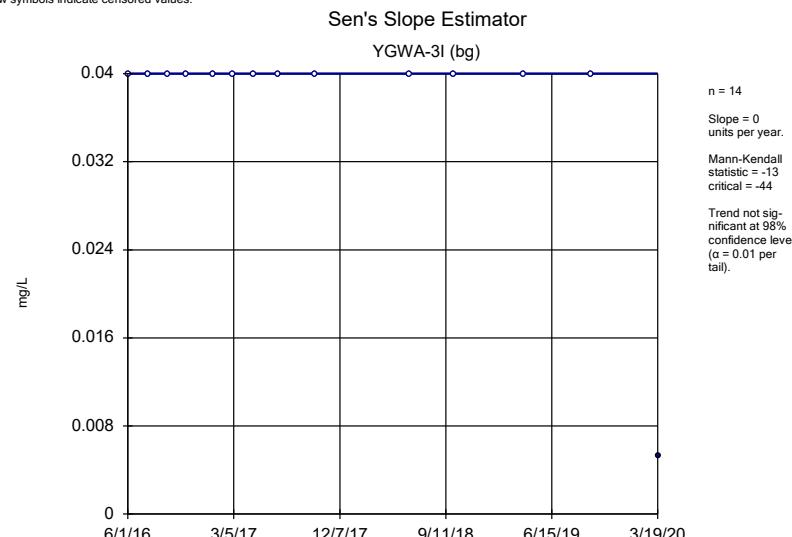
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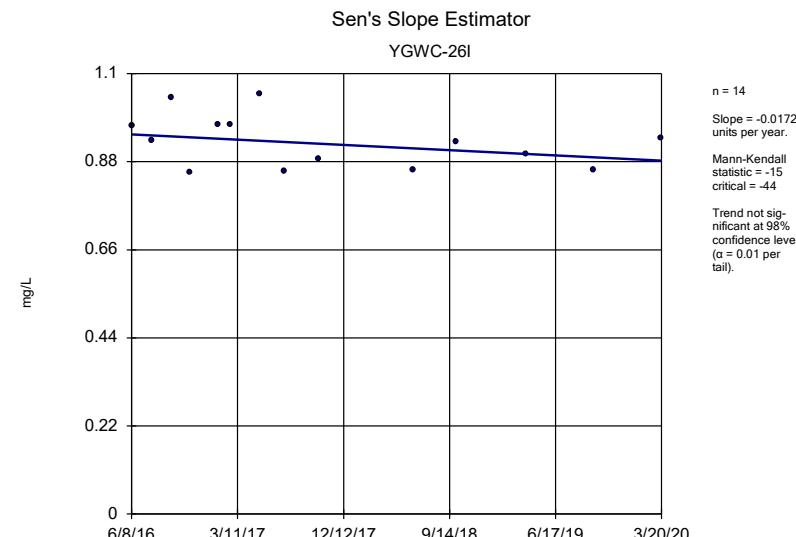
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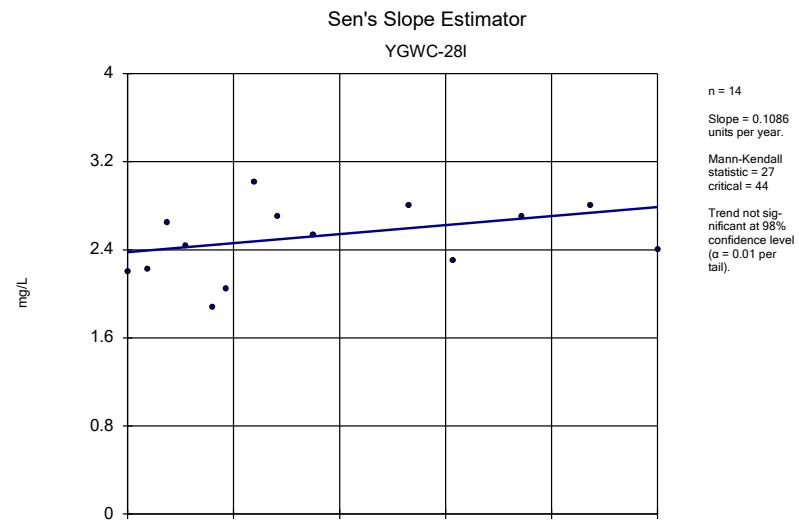
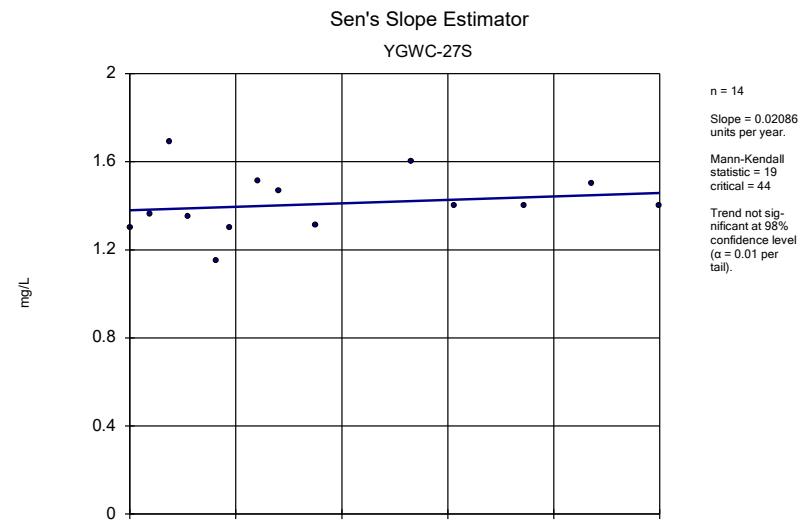
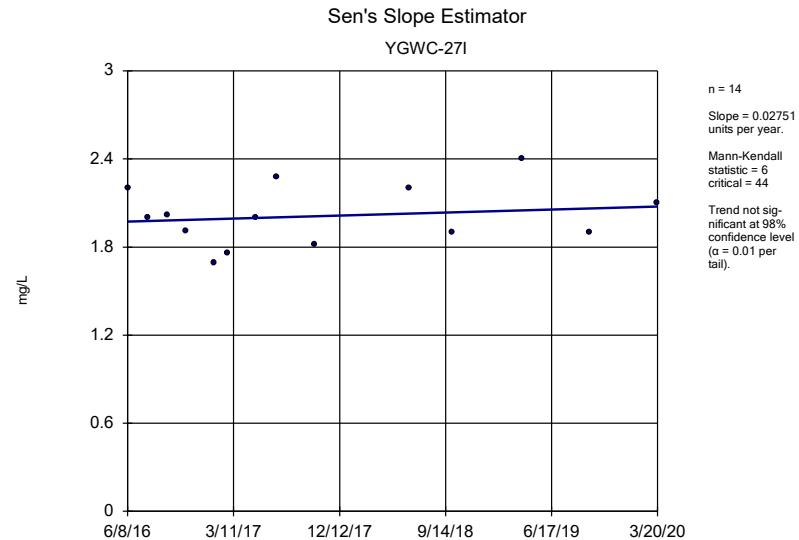
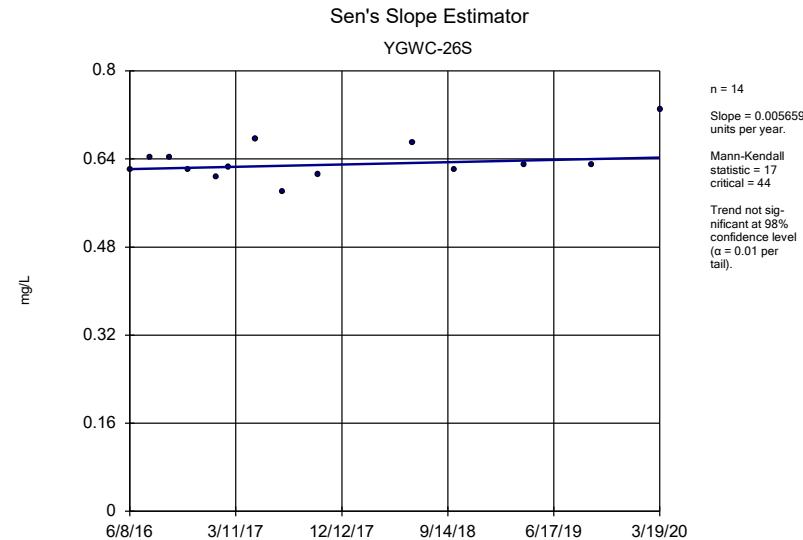


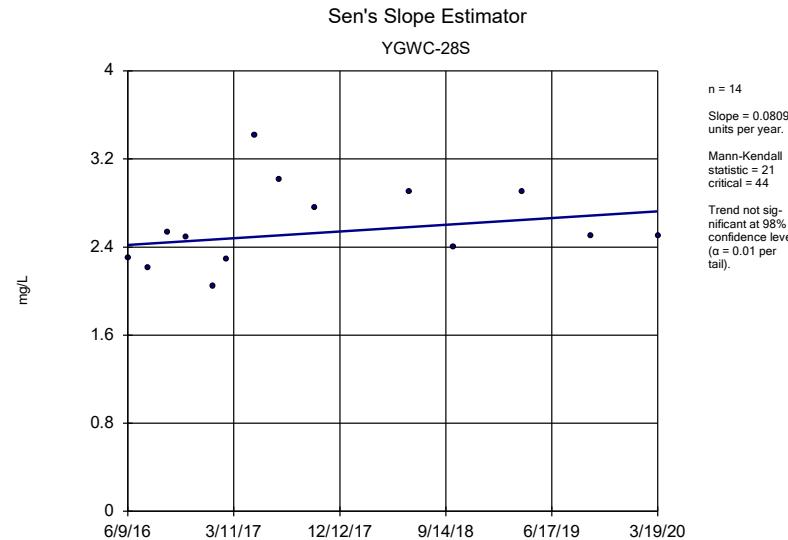
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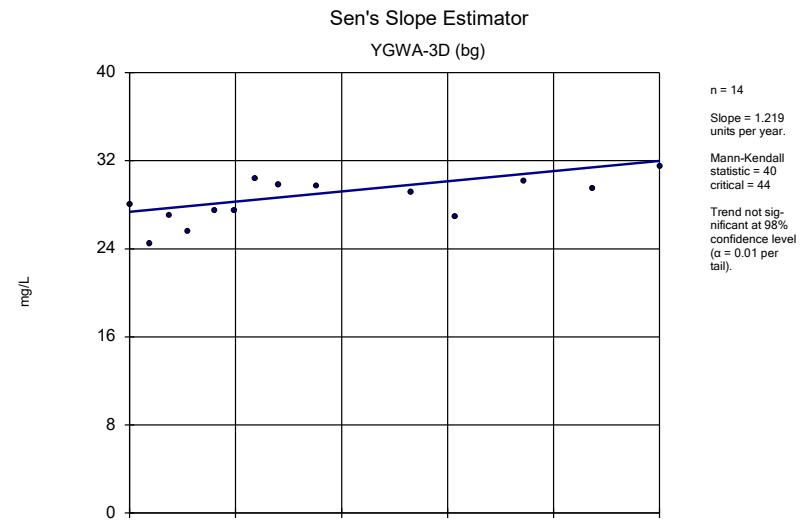
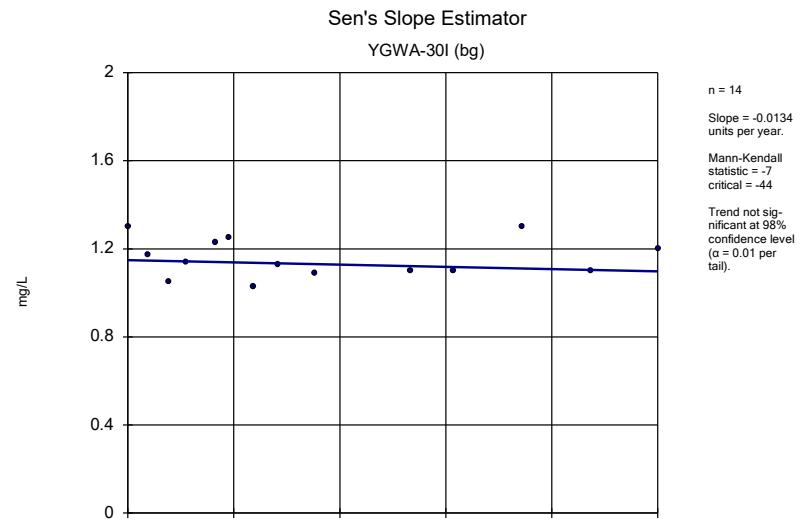
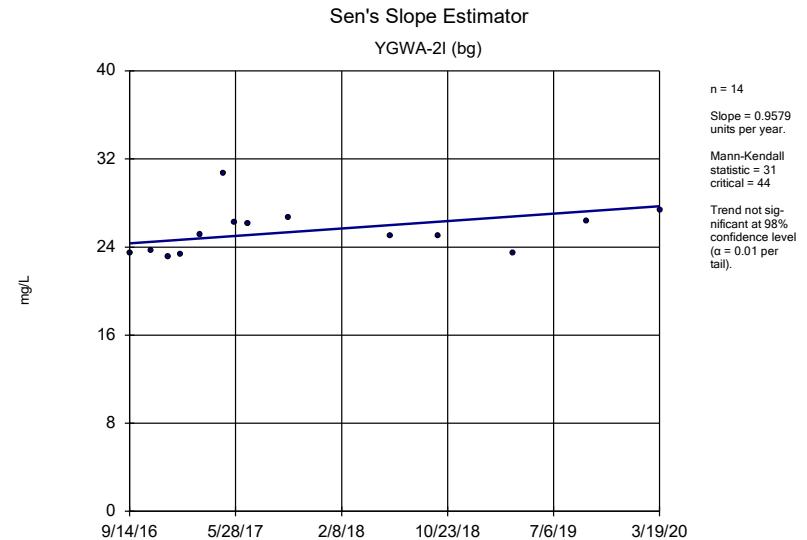
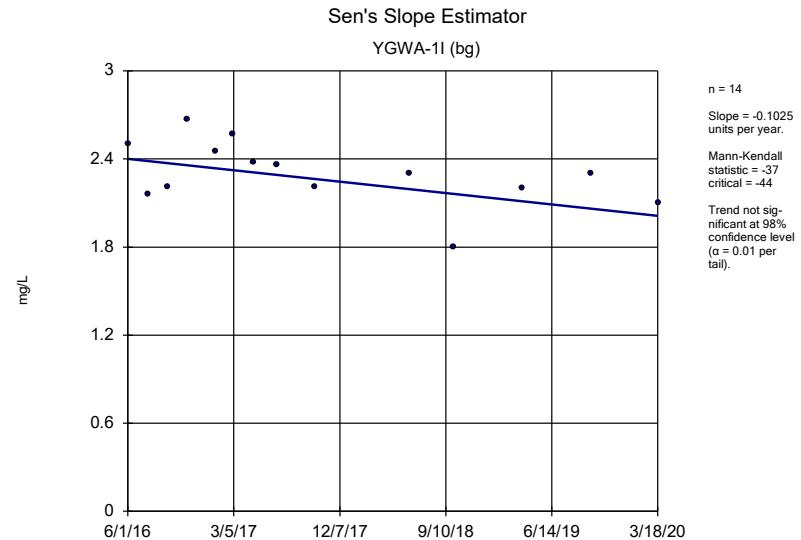
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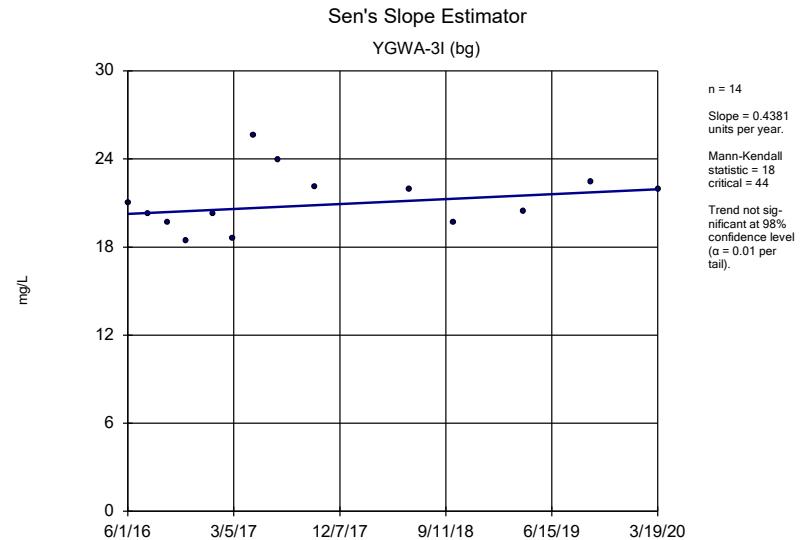


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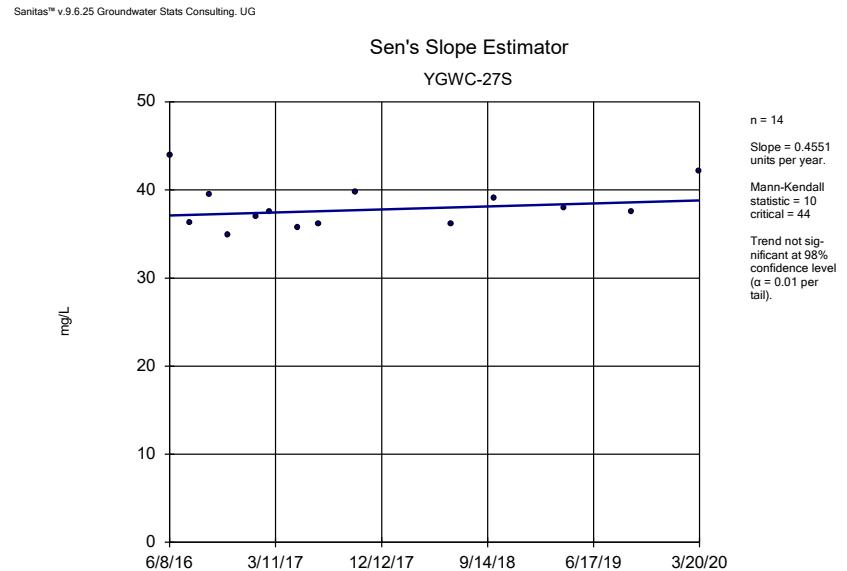




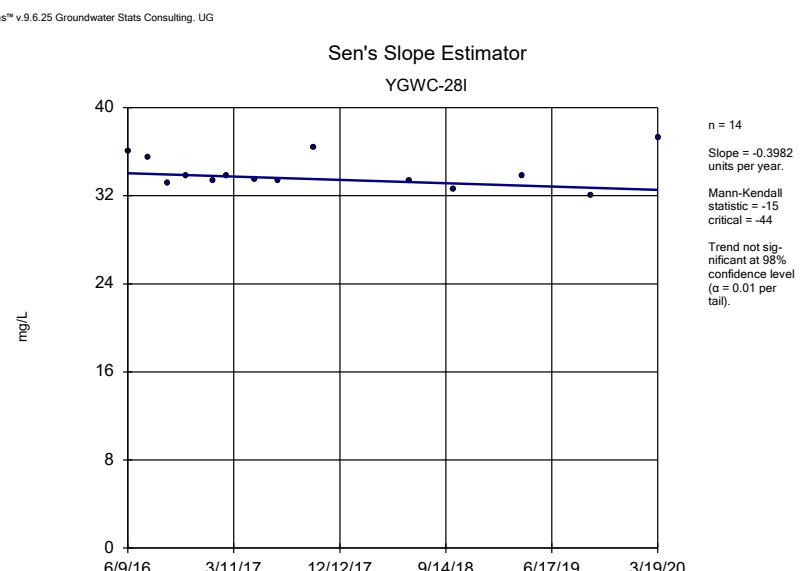




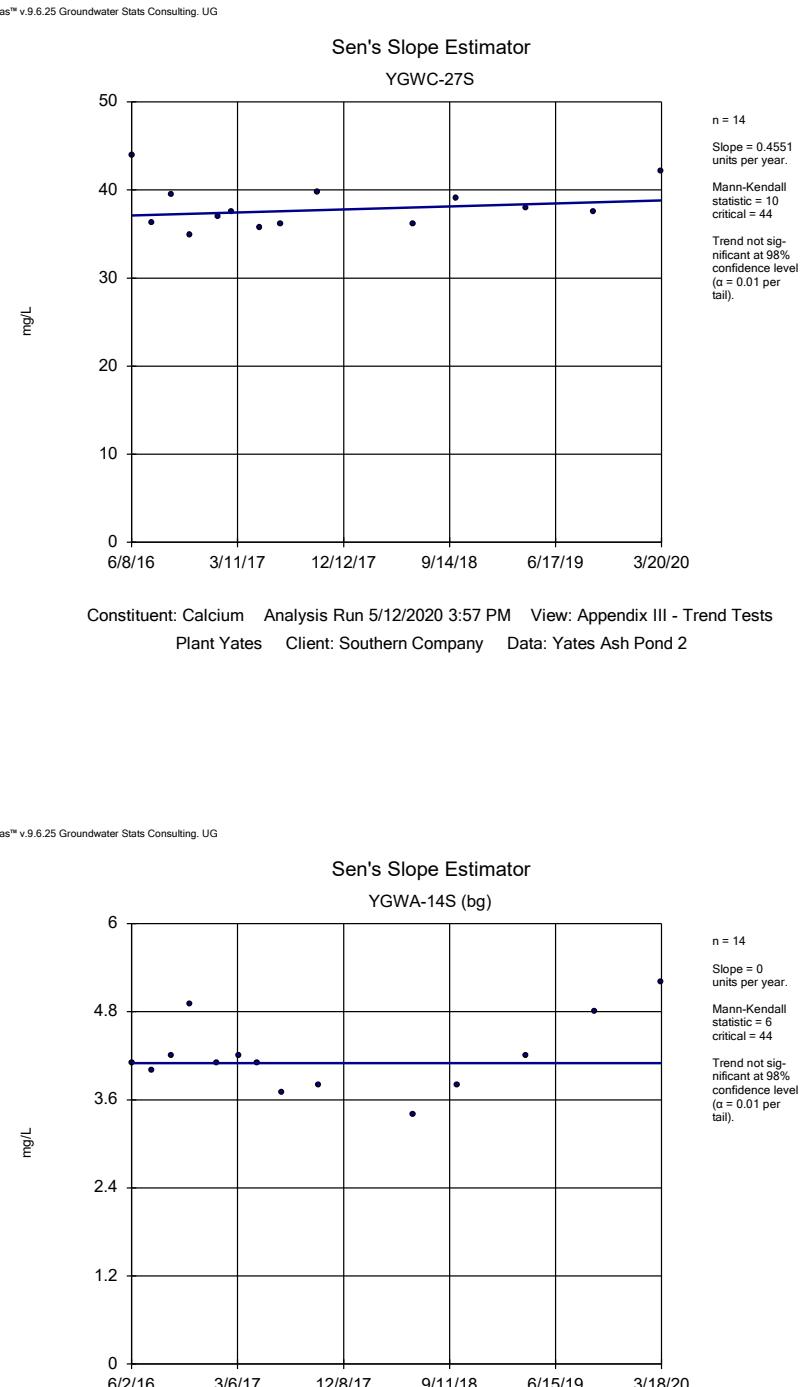
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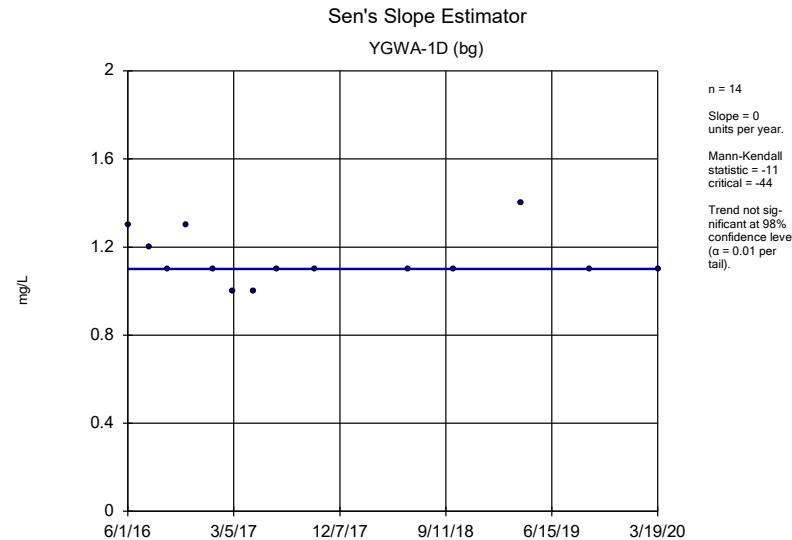


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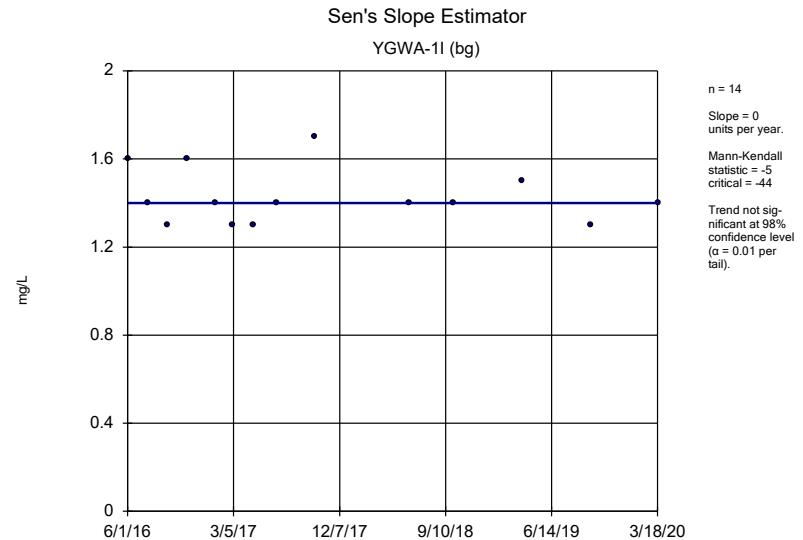


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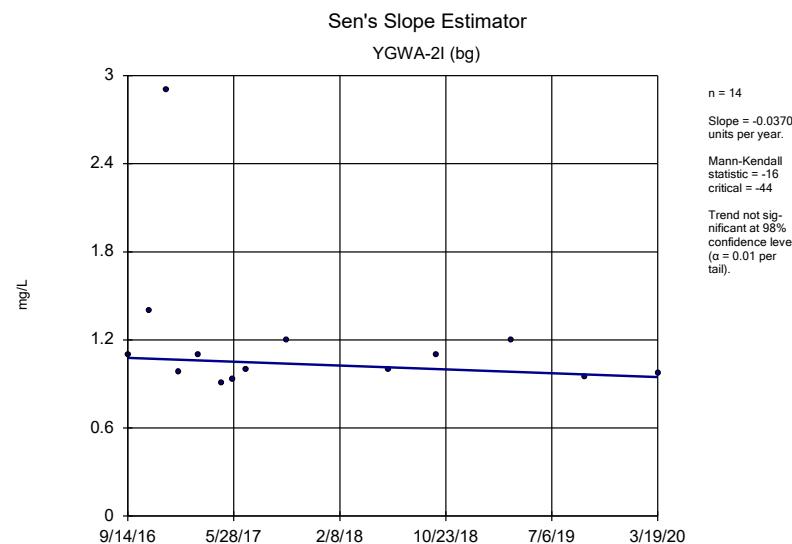




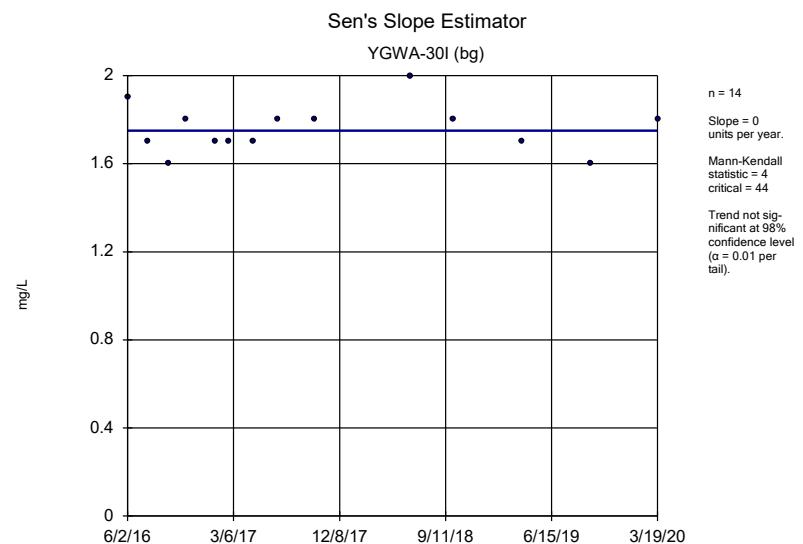
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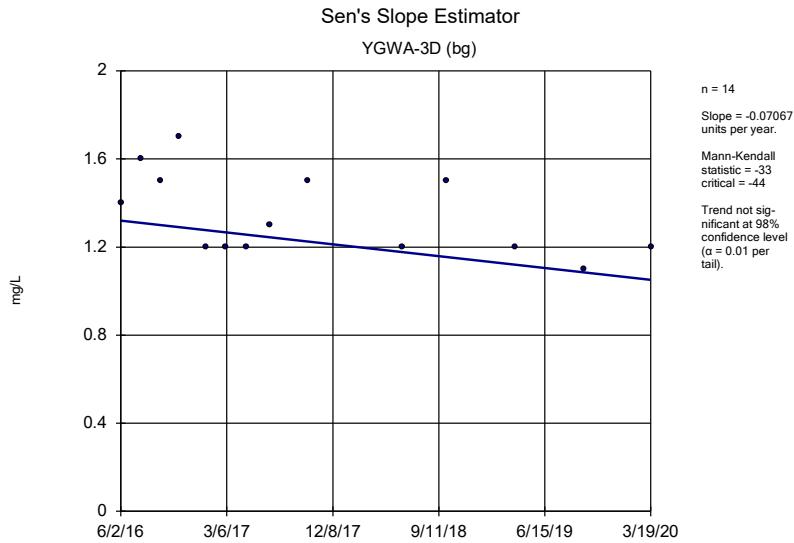
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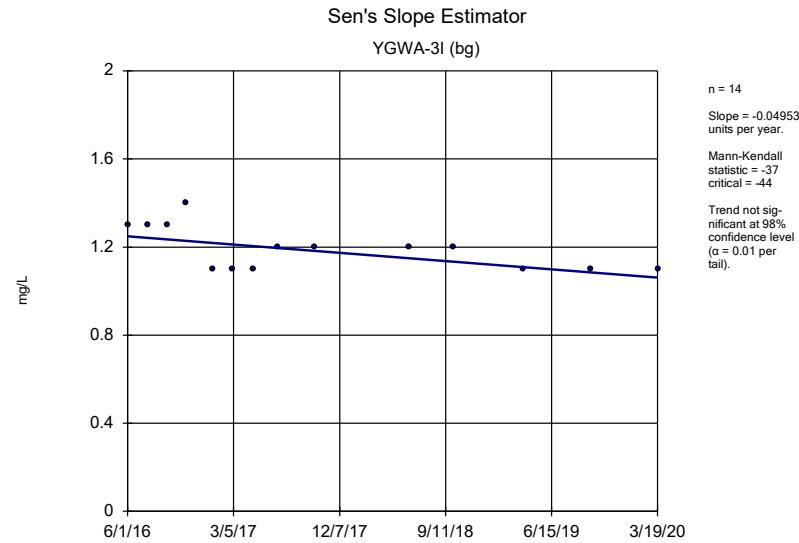
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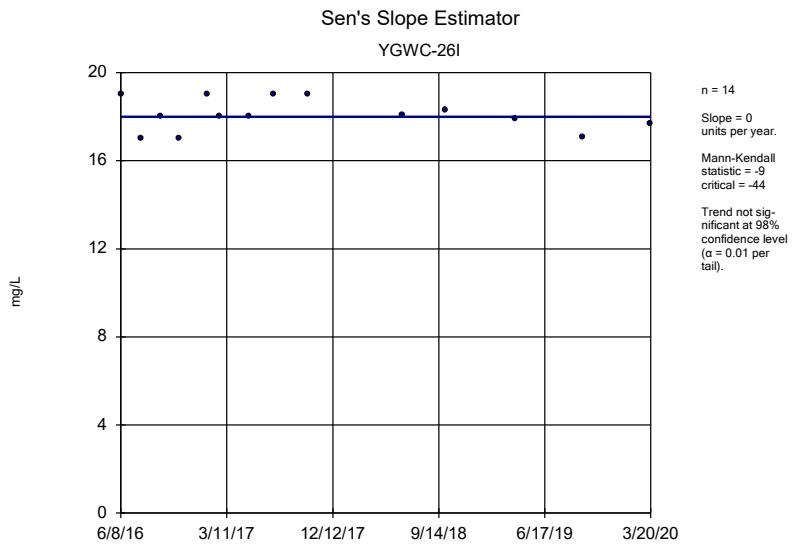
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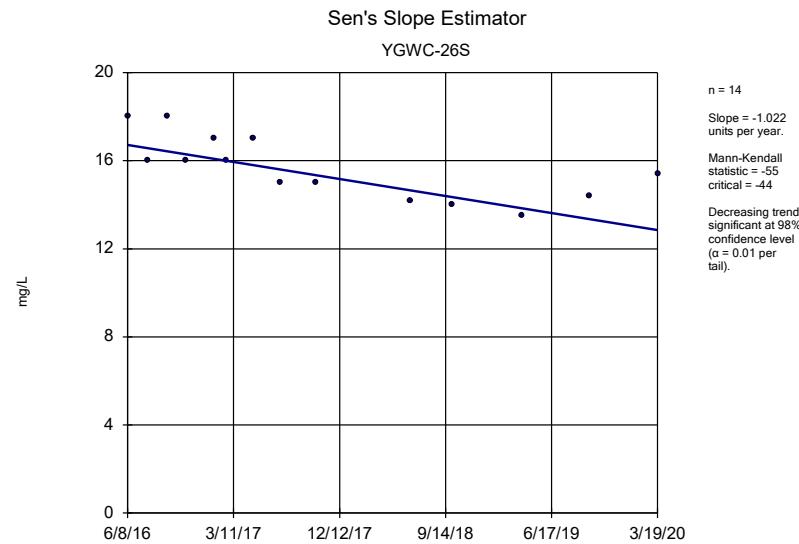
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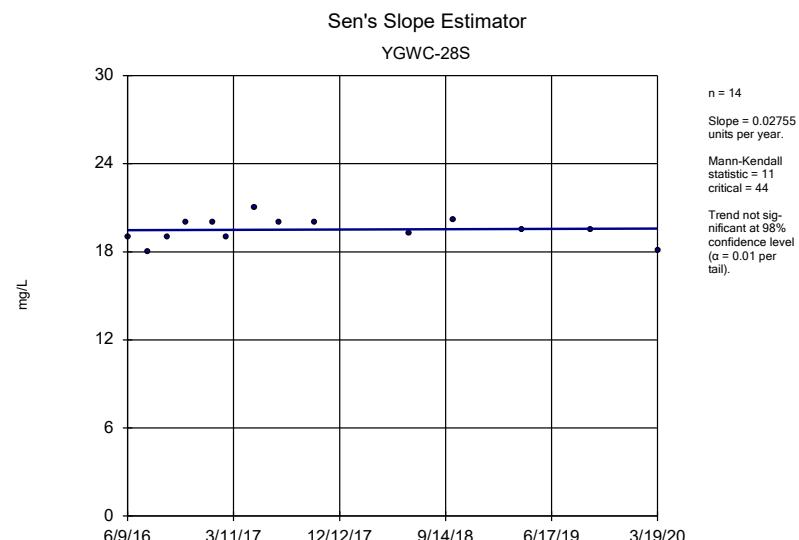
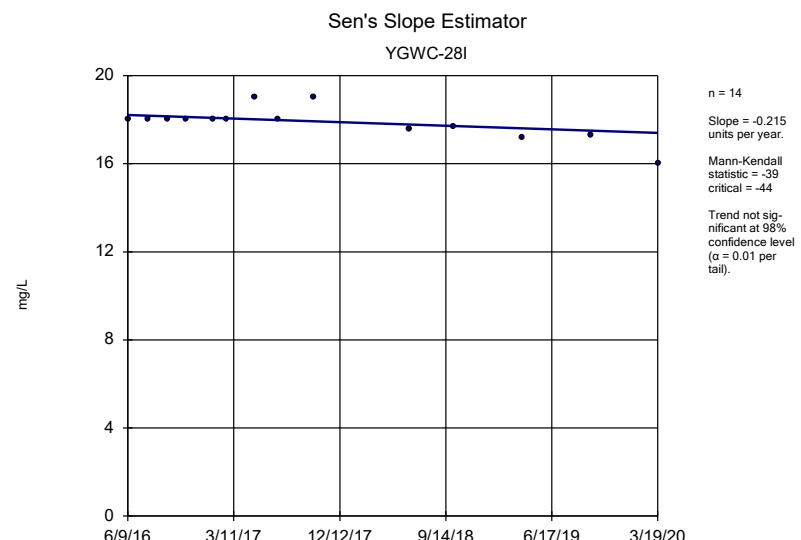
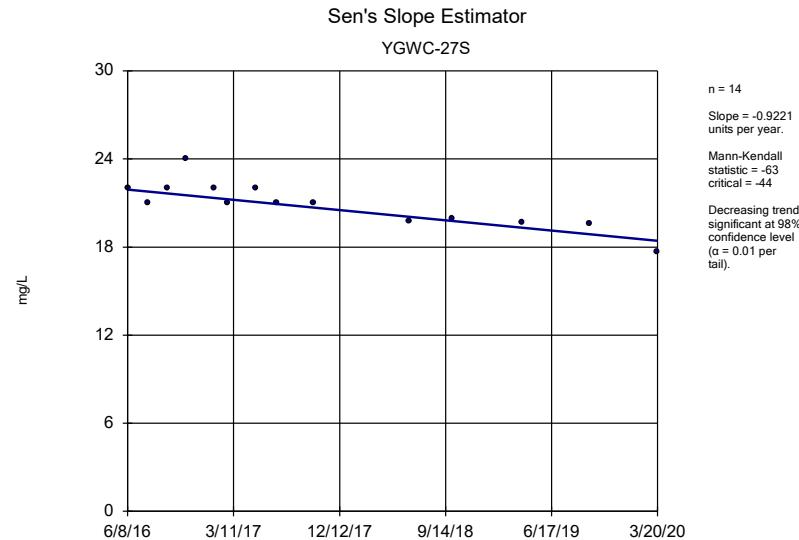
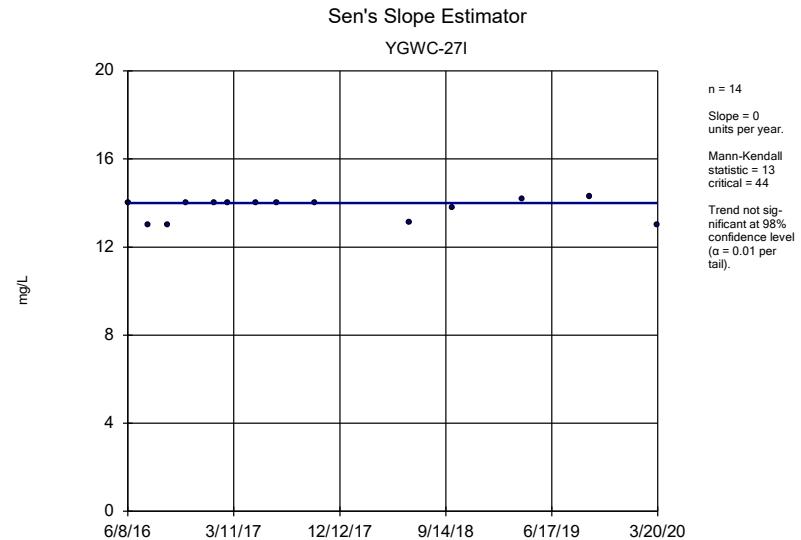
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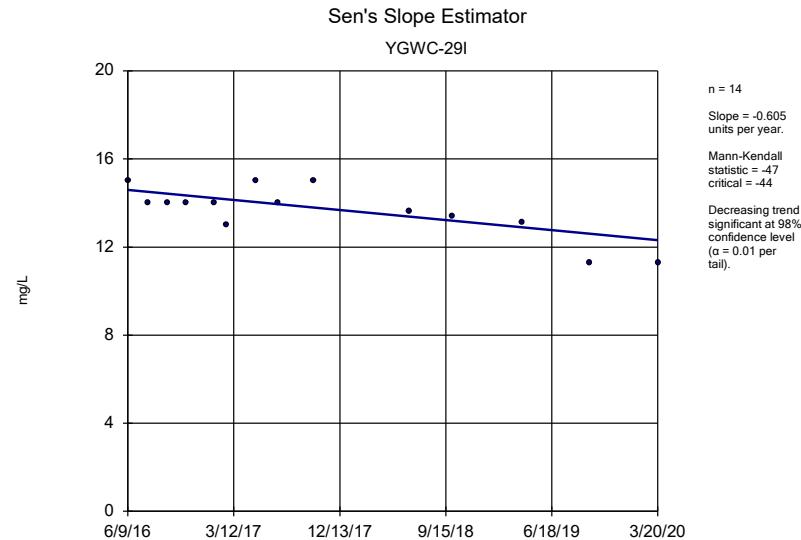


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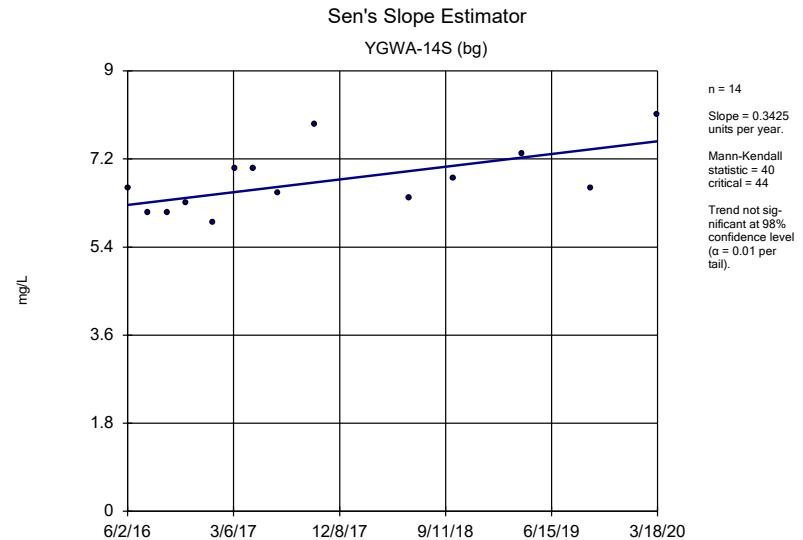


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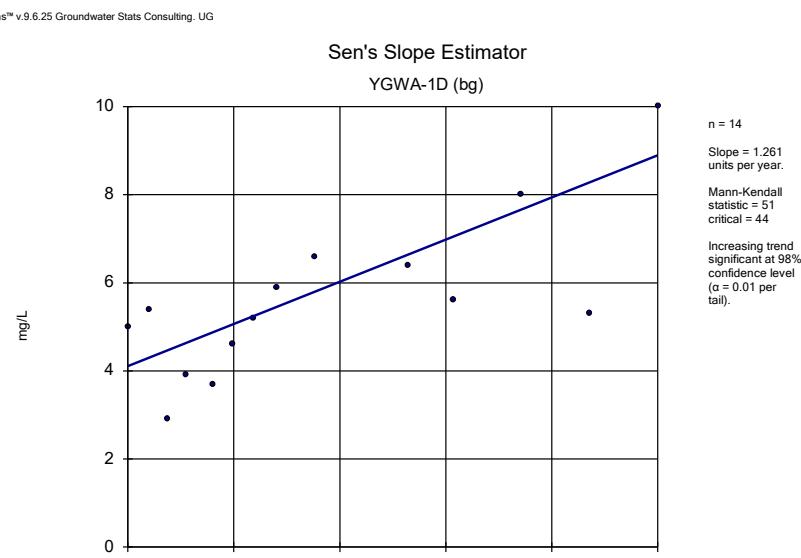




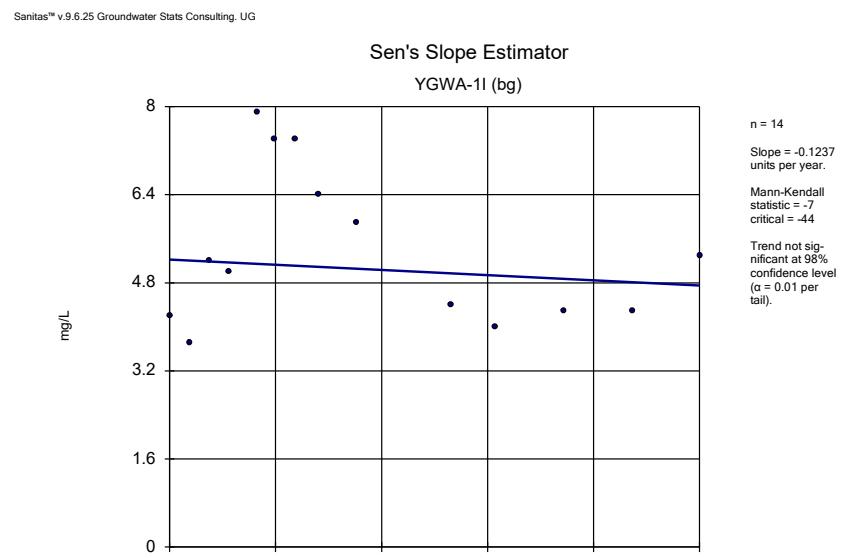
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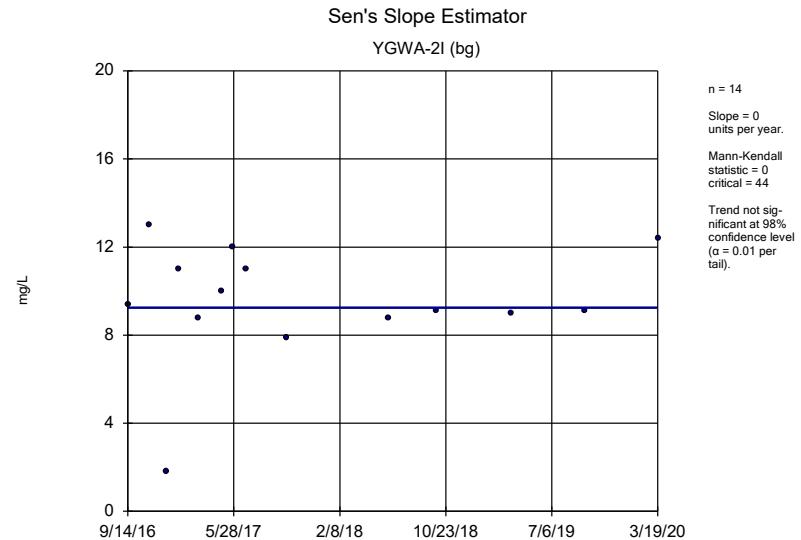
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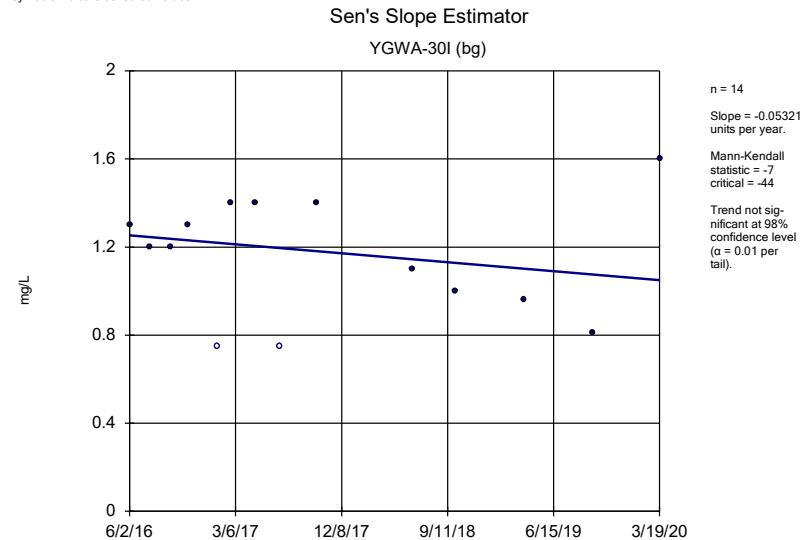
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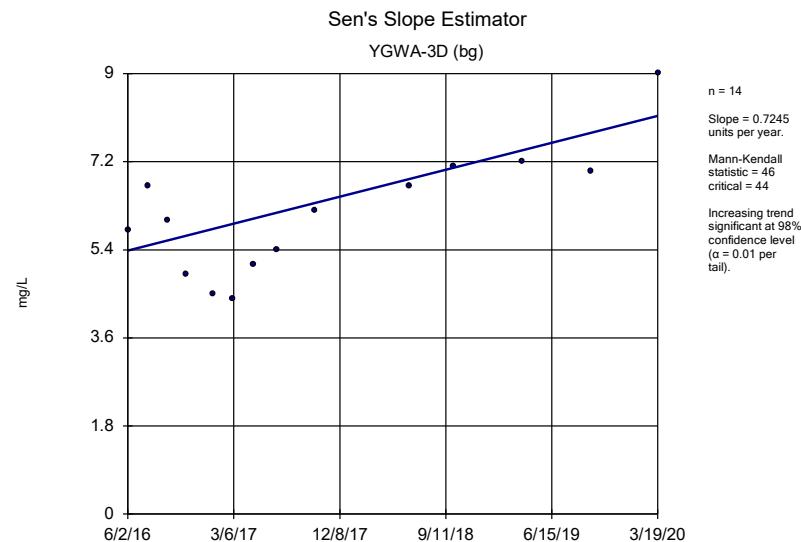
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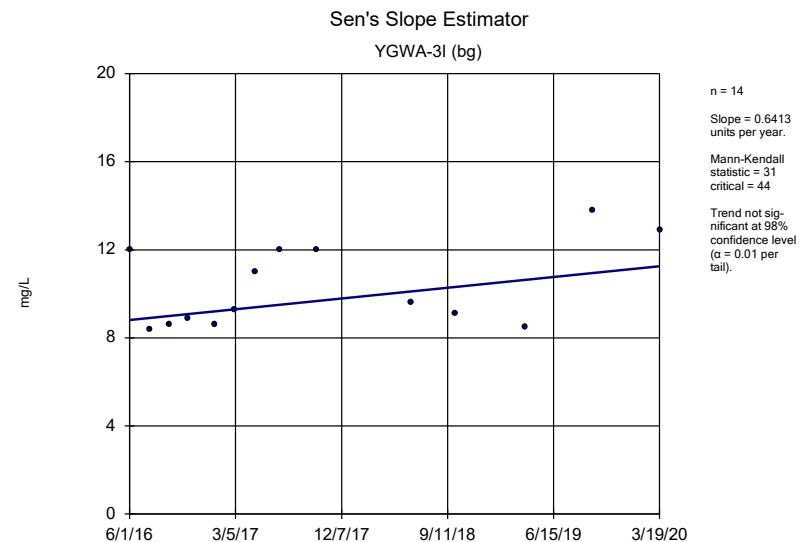
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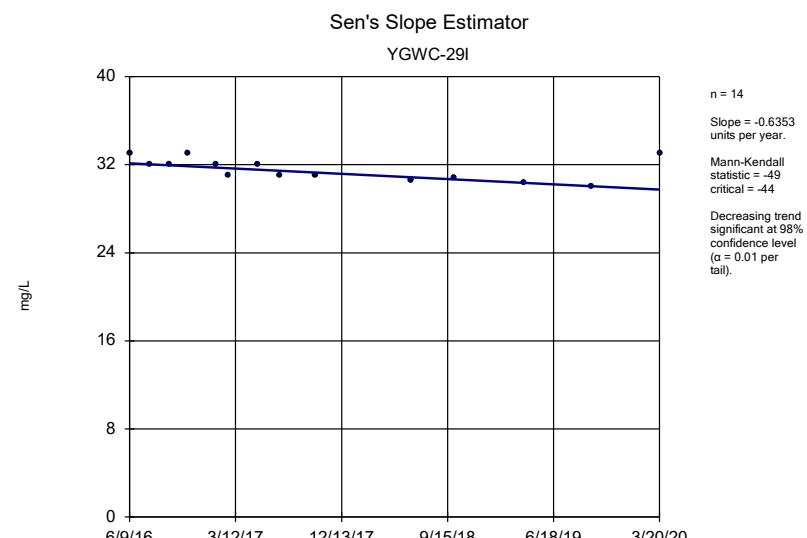
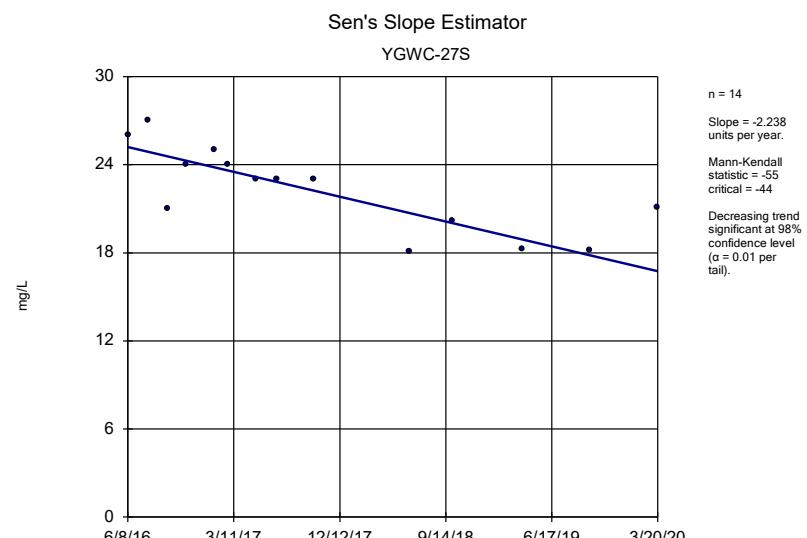
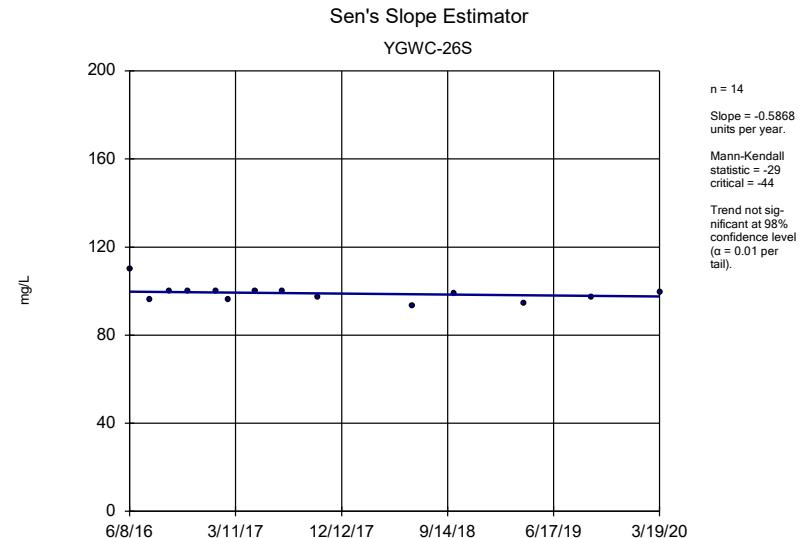
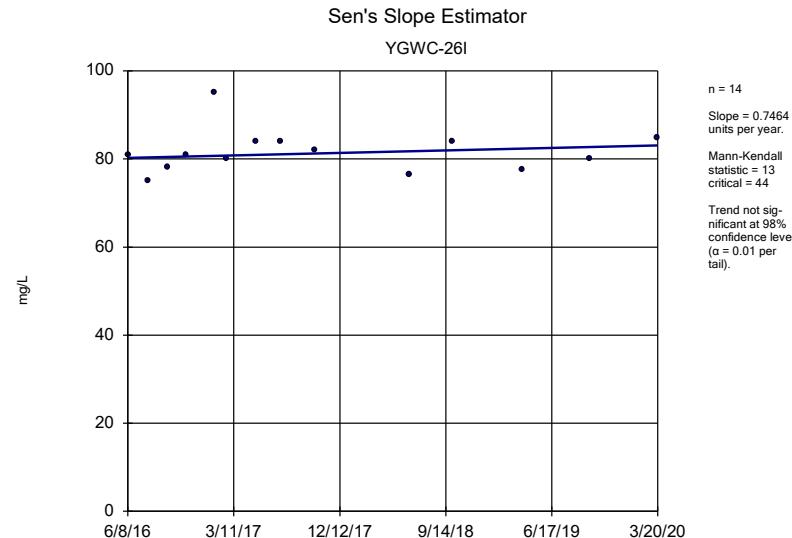
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Constituent: Sulfate Analysis Run 5/12/2020 3:57 PM View: Appendix III - Trend Tests  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Sulfate Analysis Run 5/12/2020 3:57 PM View: Appendix III - Trend Tests  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



## FIGURE G.

## Tolerance Limit Summary Table

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 4:01 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0030	n/a	n/a	n/a	n/a	84	n/a	n/a	78.57	n/a	n/a	0.01345	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0050	n/a	n/a	n/a	n/a	112	n/a	n/a	68.75	n/a	n/a	0.003199	NP Inter(NDs)
Barium (mg/L)	n/a	0.012	n/a	n/a	n/a	n/a	112	n/a	n/a	6.25	n/a	n/a	0.003199	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0030	n/a	n/a	n/a	n/a	98	n/a	n/a	86.73	n/a	n/a	0.00656	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	n/a	n/a	n/a	n/a	98	n/a	n/a	95.92	n/a	n/a	0.00656	NP Inter(NDs)
Chromium (mg/L)	n/a	0.010	n/a	n/a	n/a	n/a	98	n/a	n/a	81.63	n/a	n/a	0.00656	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.035	n/a	n/a	n/a	n/a	112	n/a	n/a	73.21	n/a	n/a	0.003199	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	4.1	n/a	n/a	n/a	n/a	112	0.9571	0.3376	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	n/a	0.68	n/a	n/a	n/a	n/a	119	n/a	n/a	52.94	n/a	n/a	0.002234	NP Inter(NDs)
Lead (mg/L)	n/a	0.0050	n/a	n/a	n/a	n/a	84	n/a	n/a	86.9	n/a	n/a	0.01345	NP Inter(NDs)
Lithium (mg/L)	n/a	0.030	n/a	n/a	n/a	n/a	112	n/a	n/a	26.79	n/a	n/a	0.003199	NP Inter(normality)
Mercury (mg/L)	n/a	0.00050	n/a	n/a	n/a	n/a	91	n/a	n/a	89.01	n/a	n/a	0.009394	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.014	n/a	n/a	n/a	n/a	112	n/a	n/a	28.57	n/a	n/a	0.003199	NP Inter(normality)
Selenium (mg/L)	n/a	0.010	n/a	n/a	n/a	n/a	98	n/a	n/a	94.9	n/a	n/a	0.00656	NP Inter(NDs)
Thallium (mg/L)	n/a	0.0010	n/a	n/a	n/a	n/a	84	n/a	n/a	96.43	n/a	n/a	0.01345	NP Inter(NDs)

## FIGURE H.

YATES ASH POND 2 GWPS - FEDERAL				
Constituent Name	MCL	CCR Rule-Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.012	2
Beryllium, Total (mg/L)	0.004		0.003	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.035	0.035
Combined Radium, Total (pCi/L)	5		4.1	5
Fluoride, Total (mg/L)	4		0.68	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.015
Lithium, Total (mg/L)	n/a	0.04	0.03	0.04
Mercury, Total (mg/L)	0.002		0.0005	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.014	0.1
Selenium, Total (mg/L)	0.05		0.01	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

\*Grey cell indicates ACL is higher than MCL or CCR Rule-specified level

\*MCL = Maximum Contaminant Level

\*CCR = Coal Combustion Residual

\*GWPS = Groundwater Protection Standard

**FIGURE I.**

YATES ASH POND 2 GWPS - STATE				
Constituent Name	MCL	CCR Rule-Specified	Background Limit	GWPS
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.012	2
Beryllium, Total (mg/L)	0.004		0.003	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.035	0.035
Combined Radium, Total (pCi/L)	5		4.1	5
Fluoride, Total (mg/L)	4		0.68	4
Lead, Total (mg/L)	n/a	0.015	0.005	0.005
Lithium, Total (mg/L)	n/a	0.04	0.03	0.03
Mercury, Total (mg/L)	0.002		0.0005	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.014	0.014
Selenium, Total (mg/L)	0.05		0.01	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

\*Grey cell indicates ACL is higher than MCL or CCR Rule-specified level

\*MCL = Maximum Contaminant Level

\*CCR = Coal Combustion Residual

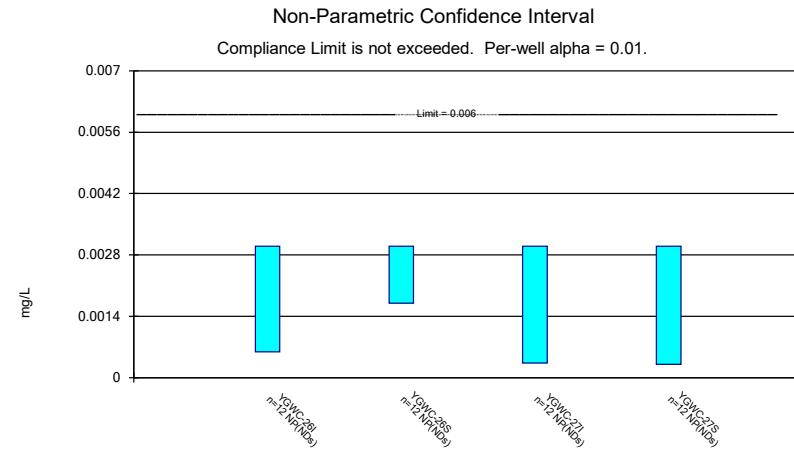
\*GWPS = Groundwater Protection Standard

**FIGURE J.**

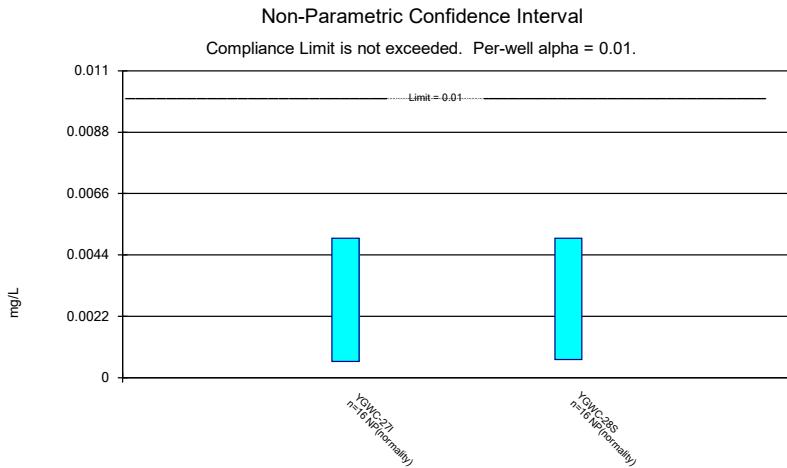
# Federal Confidence Intervals - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 4:10 PM

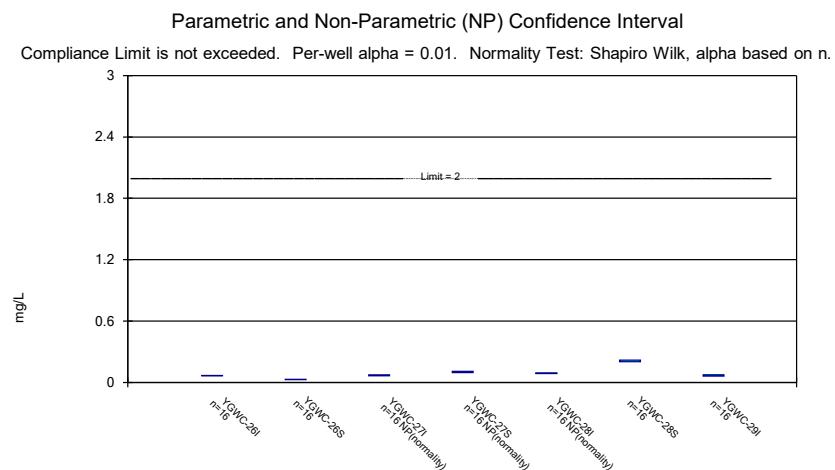
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-26I	0.003	0.00059	0.006	No 12	0.002593	0.0009518	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-26S	0.003	0.0017	0.006	No 12	0.002775	0.0005259	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-27I	0.003	0.00033	0.006	No 12	0.002778	0.0007708	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-27S	0.003	0.0003	0.006	No 12	0.002775	0.0007794	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.005	0.00058	0.01	No 16	0.00284	0.002236	50	None	No	0.01	NP (normality)
Arsenic (mg/L)	YGWC-28S	0.005	0.00065	0.01	No 16	0.002844	0.002228	50	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-26I	0.06702	0.06349	2	No 16	0.06526	0.002713	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.02866	0.02645	2	No 16	0.02756	0.0017	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.0728	0.063	2	No 16	0.06765	0.006649	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-27S	0.108	0.096	2	No 16	0.1018	0.007225	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28I	0.0915	0.0862	2	No 16	0.08876	0.003645	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28S	0.2177	0.2027	2	No 16	0.2102	0.01155	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.0732	0.06226	2	No 16	0.06773	0.008408	0	None	No	0.01	Param.
Beryllium (mg/L)	YGWC-26S	0.003	0.00011	0.004	No 14	0.000565	0.001032	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-27I	0.003	0.0001	0.004	No 14	0.0007907	0.001198	21.43	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-28I	0.00055	0.00009	0.005	No 14	0.0003343	0.0004118	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-29I	0.00026	0.0001	0.005	No 14	0.0003371	0.0003901	14.29	None	No	0.01	NP (normality)
Chromium (mg/L)	YGWC-26I	0.01	0.0006	0.1	No 14	0.006294	0.004571	57.14	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-26S	0.002761	0.001323	0.1	No 14	0.003943	0.003491	21.43	Kaplan-Meier	In(x)	0.01	Param.
Chromium (mg/L)	YGWC-27S	0.015	0.0005	0.1	No 14	0.009679	0.002959	85.71	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-28I	0.01	0.0005	0.1	No 14	0.007958	0.004058	78.57	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-28S	0.01	0.0005	0.1	No 14	0.008642	0.003452	85.71	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-29I	0.01	0.0005	0.1	No 14	0.009321	0.002539	92.86	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.002891	0.001983	0.035	No 16	0.0025	0.0008446	6.25	None	In(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.0495	0.0017	0.035	No 16	0.02107	0.02867	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0022	0.035	No 16	0.002544	0.0006723	6.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No 16	0.004714	0.001145	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.0012	0.00085	0.035	No 16	0.001263	0.001007	6.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.0006	0.035	No 16	0.003882	0.002	75	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.231	0.4873	5	No 15	0.8594	0.5491	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.9282	0.5491	5	No 16	0.7387	0.2913	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.272	2.921	5	No 16	3.596	1.038	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.087	0.6697	5	No 16	0.8785	0.3209	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.948	0.245	5	No 16	0.6106	0.348	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.9165	0.4416	5	No 16	0.6791	0.365	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.199	0.6989	5	No 16	0.9488	0.384	0	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.3	0.071	4	No 17	0.1822	0.1152	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-26S	0.35	0.24	4	No 17	0.2685	0.1021	64.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-27I	0.3	0.086	4	No 17	0.2394	0.09945	70.59	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-27S	0.2457	0.1134	4	No 17	0.2113	0.1111	17.65	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.3	0.08	4	No 17	0.1956	0.1074	29.41	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-28S	0.3044	0.1886	4	No 17	0.2465	0.09239	11.76	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-29I	0.3	0.059	4	No 17	0.1693	0.1149	41.18	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-26I	0.005	0.00059	0.015	No 12	0.004588	0.001426	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-26S	0.005	0.0001	0.015	No 12	0.004182	0.001911	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-27S	0.005	0.000085	0.015	No 12	0.003779	0.002209	75	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-28S	0.005	0.00007	0.015	No 12	0.003767	0.002231	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-26I	0.007022	0.006453	0.04	No 16	0.006738	0.000438	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-27I	0.01085	0.008414	0.04	No 16	0.009631	0.001871	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-28I	0.007106	0.006657	0.04	No 16	0.006881	0.0003449	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-29I	0.006631	0.005481	0.04	No 16	0.006056	0.0008839	0	None	No	0.01	Param.
Molybdenum (mg/L)	YGWC-27I	0.01	0.0013	0.1	No 16	0.006756	0.004328	62.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.01	0.0013	0.1	No 16	0.006206	0.004443	56.25	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28S	0.01	0.0007	0.1	No 16	0.008831	0.003194	87.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-26I	0.0023	0.0017	0.05	No 14	0.003071	0.002941	14.29	None	No	0.01	NP (normality)
Selenium (mg/L)	YGWC-26S	0.01	0.0012	0.05	No 14	0.00745	0.004192	71.43	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-28I	0.01	0.0012	0.05	No 14	0.009371	0.002352	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-28S	0.01	0.001	0.05	No 14	0.009357	0.002405	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-26S	0.001	0.000057	0.002	No 12	0.0008427	0.0003675	83.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-27S	0.001	0.0001	0.002	No 12	0.0005525	0.0004674	50	None	No	0.01	NP (normality)



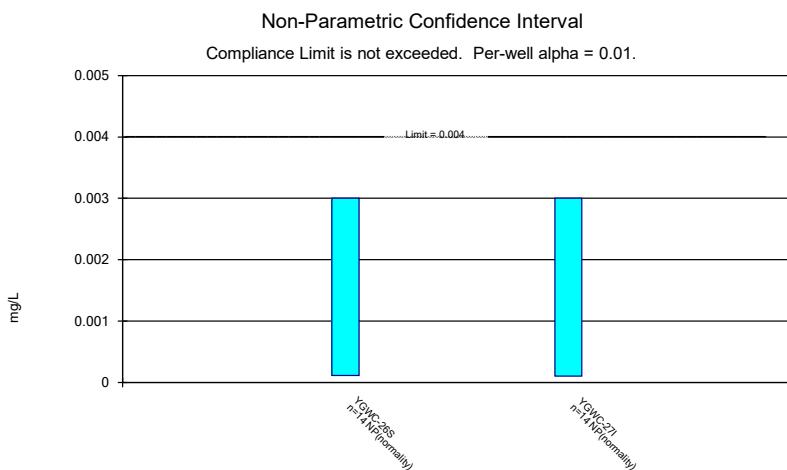
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2



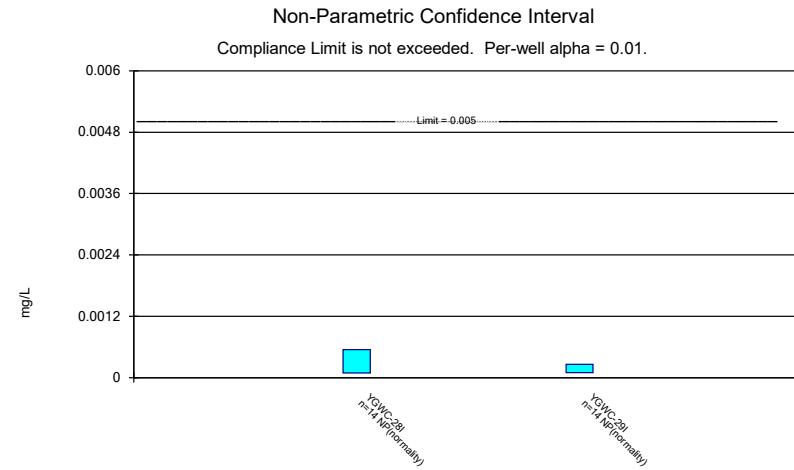
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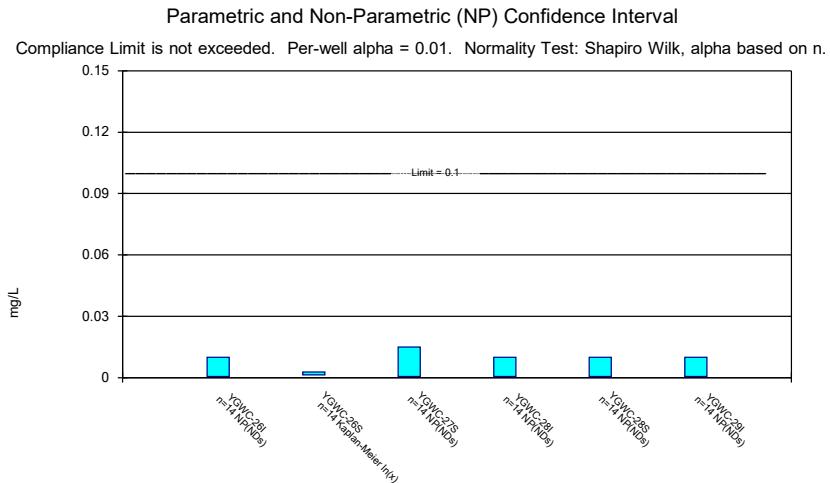
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2



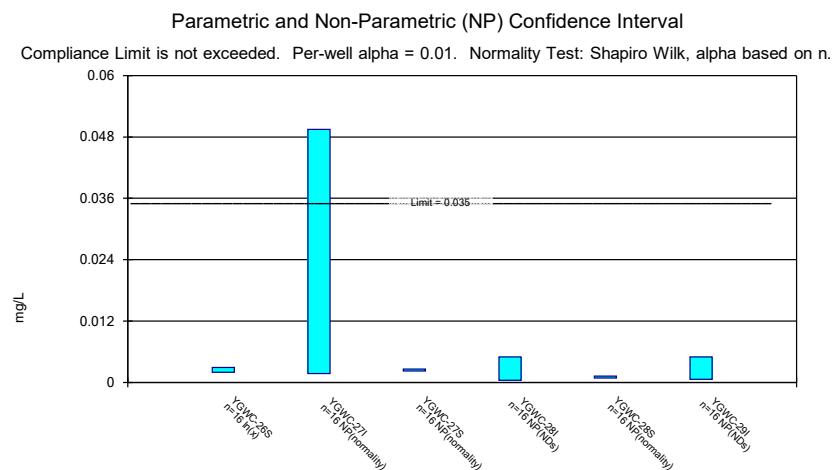
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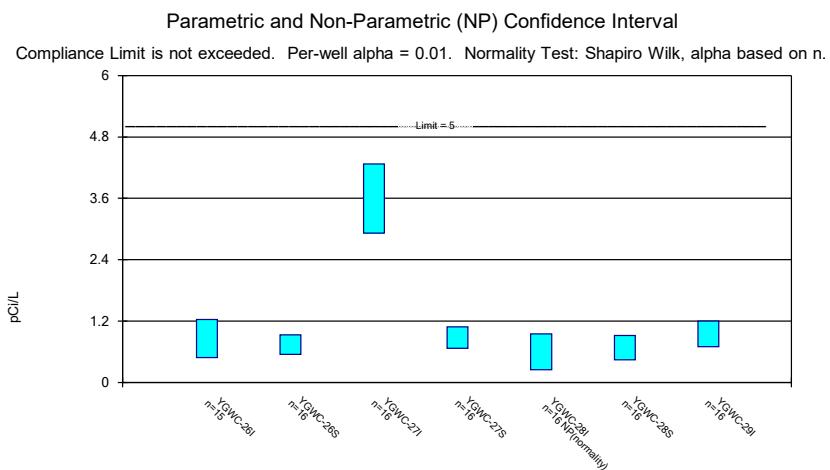
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Constituent: Chromium Analysis Run 5/12/2020 4:09 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



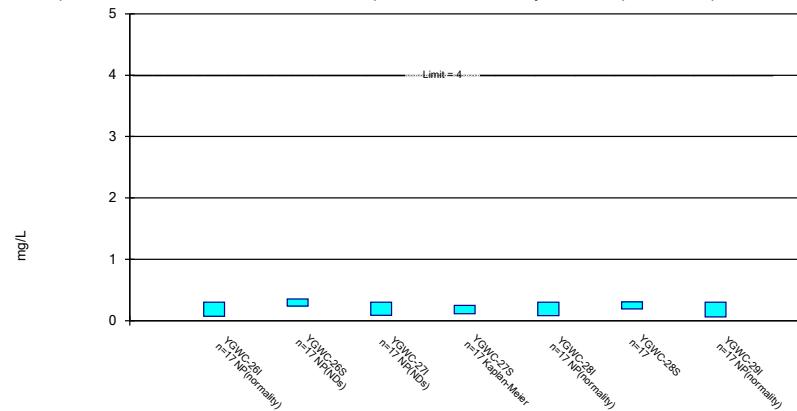
Constituent: Cobalt Analysis Run 5/12/2020 4:09 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Combined Radium 226 + 228 Analysis Run 5/12/2020 4:09 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

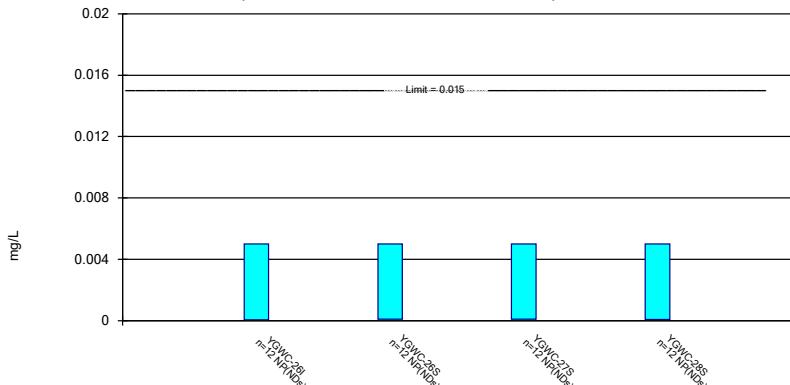


Constituent: Fluoride Analysis Run 5/12/2020 4:09 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Non-Parametric Confidence Interval

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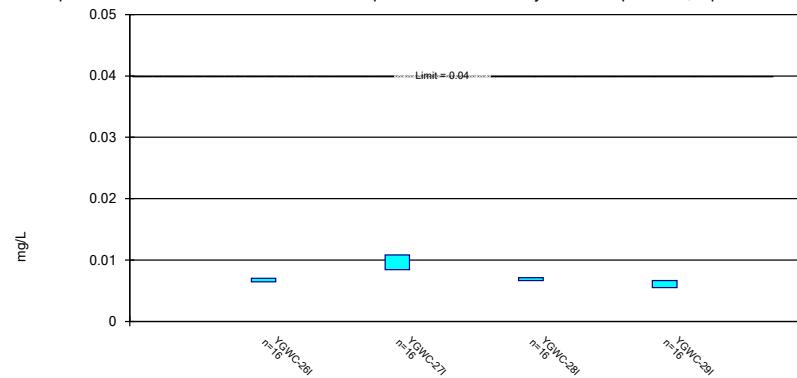


Constituent: Lead Analysis Run 5/12/2020 4:09 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric Confidence Interval

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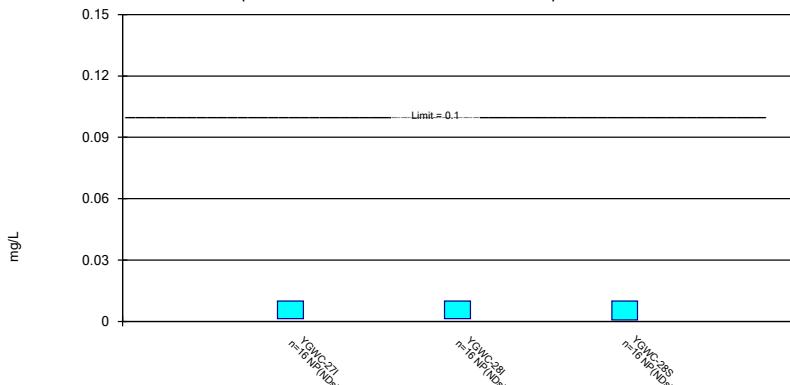


Constituent: Lithium Analysis Run 5/12/2020 4:09 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

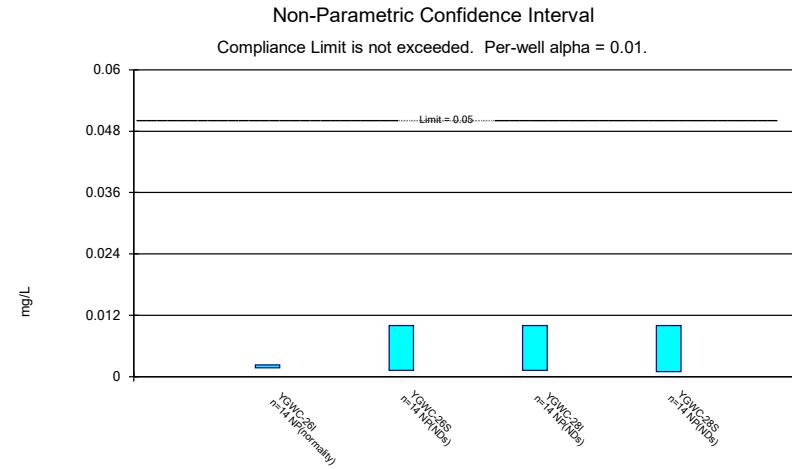
### Non-Parametric Confidence Interval

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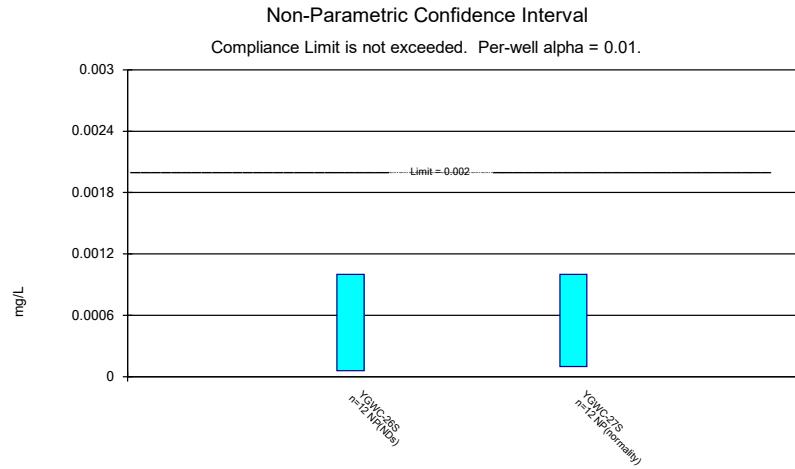


Constituent: Molybdenum Analysis Run 5/12/2020 4:09 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Selenium Analysis Run 5/12/2020 4:09 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



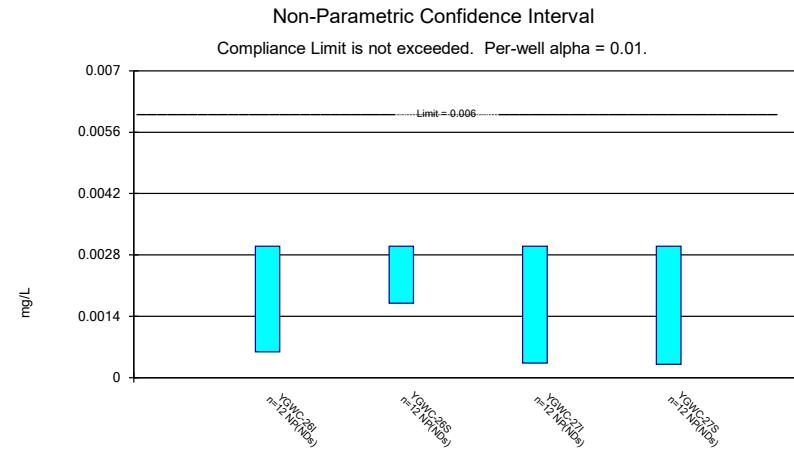
Constituent: Thallium Analysis Run 5/12/2020 4:09 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

## FIGURE K.

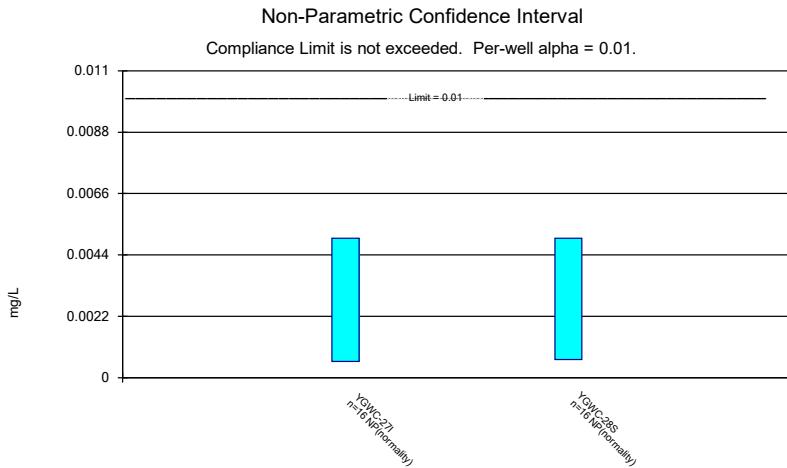
# State Confidence Intervals - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/12/2020, 4:07 PM

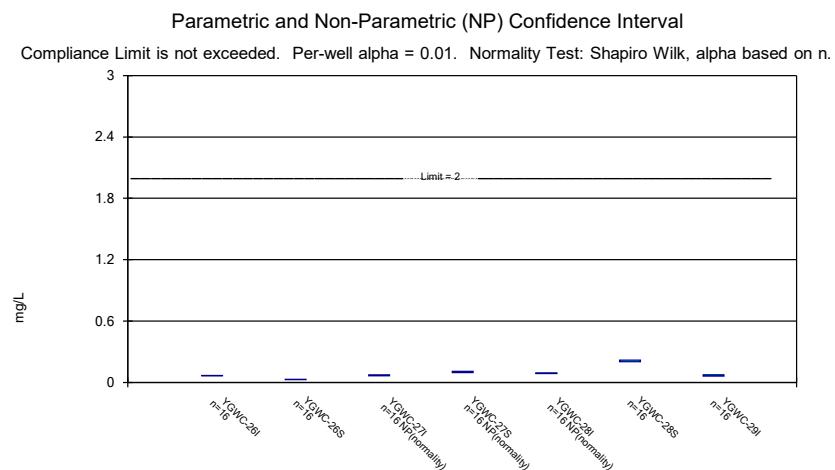
<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	YGWC-26I	0.003	0.00059	0.006	No 12	0.002593	0.0009518	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-26S	0.003	0.0017	0.006	No 12	0.002775	0.0005259	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-27I	0.003	0.00033	0.006	No 12	0.002778	0.0007708	91.67	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-27S	0.003	0.0003	0.006	No 12	0.002775	0.0007794	91.67	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.005	0.00058	0.01	No 16	0.00284	0.002236	50	None	No	0.01	NP (normality)
Arsenic (mg/L)	YGWC-28S	0.005	0.00065	0.01	No 16	0.002844	0.002228	50	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-26I	0.06702	0.06349	2	No 16	0.06526	0.002713	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.02866	0.02645	2	No 16	0.02756	0.0017	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.0728	0.063	2	No 16	0.06765	0.006649	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-27S	0.108	0.096	2	No 16	0.1018	0.007225	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28I	0.0915	0.0862	2	No 16	0.08876	0.003645	0	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28S	0.2177	0.2027	2	No 16	0.2102	0.01155	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.0732	0.06226	2	No 16	0.06773	0.008408	0	None	No	0.01	Param.
Beryllium (mg/L)	YGWC-26S	0.003	0.00011	0.004	No 14	0.000565	0.001032	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-27I	0.003	0.0001	0.004	No 14	0.0007907	0.001198	21.43	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-28I	0.00055	0.00009	0.005	No 14	0.0003343	0.0004118	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	YGWC-29I	0.00026	0.0001	0.005	No 14	0.0003371	0.0003901	14.29	None	No	0.01	NP (normality)
Chromium (mg/L)	YGWC-26I	0.01	0.0006	0.1	No 14	0.006294	0.004571	57.14	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-26S	0.002761	0.001323	0.1	No 14	0.003943	0.003491	21.43	Kaplan-Meier	In(x)	0.01	Param.
Chromium (mg/L)	YGWC-27S	0.015	0.0005	0.1	No 14	0.009679	0.002959	85.71	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-28I	0.01	0.0005	0.1	No 14	0.007958	0.004058	78.57	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-28S	0.01	0.0005	0.1	No 14	0.008642	0.003452	85.71	Kaplan-Meier	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-29I	0.01	0.0005	0.1	No 14	0.009321	0.002539	92.86	Kaplan-Meier	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.002891	0.001983	0.035	No 16	0.0025	0.0008446	6.25	None	In(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.0495	0.0017	0.035	No 16	0.02107	0.02867	0	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0022	0.035	No 16	0.002544	0.0006723	6.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No 16	0.004714	0.001145	93.75	None	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.0012	0.00085	0.035	No 16	0.001263	0.001007	6.25	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.0006	0.035	No 16	0.003882	0.002	75	None	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.231	0.4873	5	No 15	0.8594	0.5491	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.9282	0.5491	5	No 16	0.7387	0.2913	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.272	2.921	5	No 16	3.596	1.038	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.087	0.6697	5	No 16	0.8785	0.3209	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.948	0.245	5	No 16	0.6106	0.348	0	None	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.9165	0.4416	5	No 16	0.6791	0.365	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.199	0.6989	5	No 16	0.9488	0.384	0	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.3	0.071	4	No 17	0.1822	0.1152	47.06	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-26S	0.35	0.24	4	No 17	0.2685	0.1021	64.71	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-27I	0.3	0.086	4	No 17	0.2394	0.09945	70.59	None	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-27S	0.2457	0.1134	4	No 17	0.2113	0.1111	17.65	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.3	0.08	4	No 17	0.1956	0.1074	29.41	None	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-28S	0.3044	0.1886	4	No 17	0.2465	0.09239	11.76	None	No	0.01	Param.
Fluoride (mg/L)	YGWC-29I	0.3	0.059	4	No 17	0.1693	0.1149	41.18	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-26I	0.005	0.00059	0.005	No 12	0.004588	0.001426	91.67	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-26S	0.005	0.0001	0.005	No 12	0.004182	0.001911	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-27S	0.005	0.000085	0.005	No 12	0.003779	0.002209	75	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-28S	0.005	0.00007	0.005	No 12	0.003767	0.002231	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-26I	0.007022	0.006453	0.03	No 16	0.006738	0.000438	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-27I	0.01085	0.008414	0.03	No 16	0.009631	0.001871	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-28I	0.007106	0.006657	0.03	No 16	0.006881	0.0003449	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-29I	0.006631	0.005481	0.03	No 16	0.006056	0.0008839	0	None	No	0.01	Param.
Molybdenum (mg/L)	YGWC-27I	0.01	0.0013	0.014	No 16	0.006756	0.004328	62.5	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.01	0.0013	0.014	No 16	0.006206	0.004443	56.25	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28S	0.01	0.0007	0.014	No 16	0.008831	0.003194	87.5	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-26I	0.0023	0.0017	0.05	No 14	0.003071	0.002941	14.29	None	No	0.01	NP (normality)
Selenium (mg/L)	YGWC-26S	0.01	0.0012	0.05	No 14	0.00745	0.004192	71.43	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-28I	0.01	0.0012	0.05	No 14	0.009371	0.002352	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-28S	0.01	0.001	0.05	No 14	0.009357	0.002405	92.86	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-26S	0.001	0.000057	0.002	No 12	0.0008427	0.0003675	83.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-27S	0.001	0.0001	0.002	No 12	0.0005525	0.0004674	50	None	No	0.01	NP (normality)



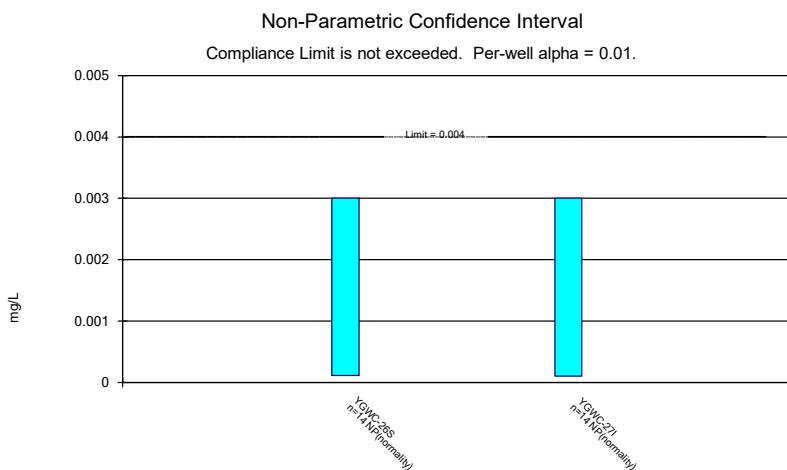
Constituent: Antimony Analysis Run 5/12/2020 4:06 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



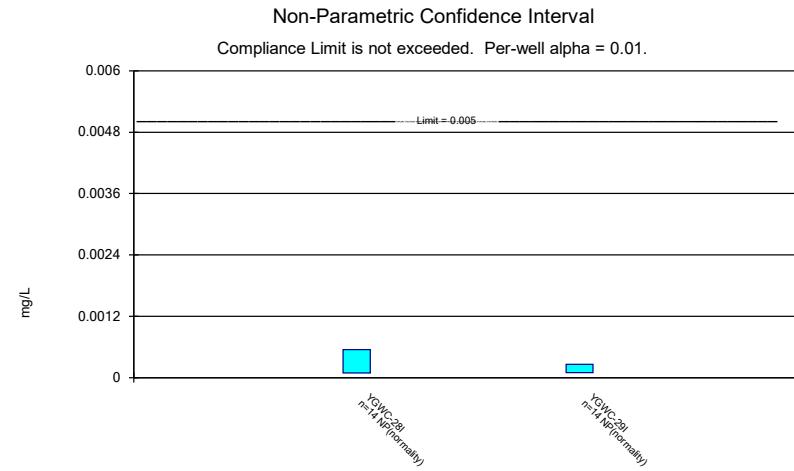
Constituent: Arsenic Analysis Run 5/12/2020 4:06 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



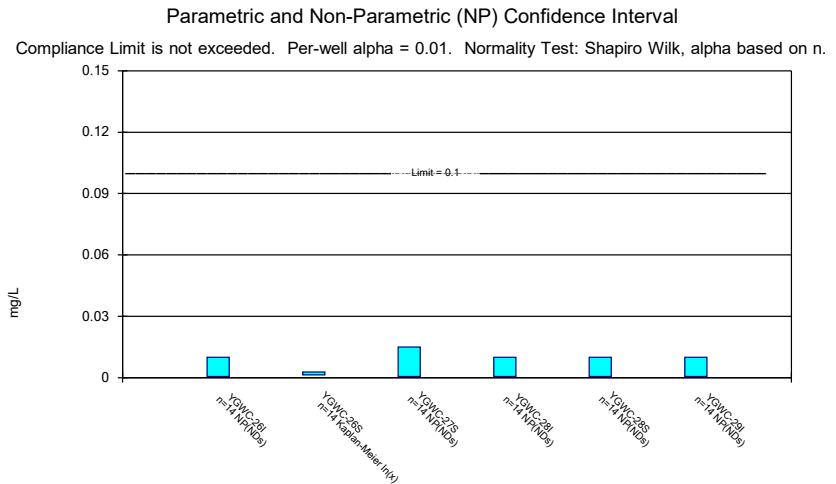
Constituent: Barium Analysis Run 5/12/2020 4:06 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



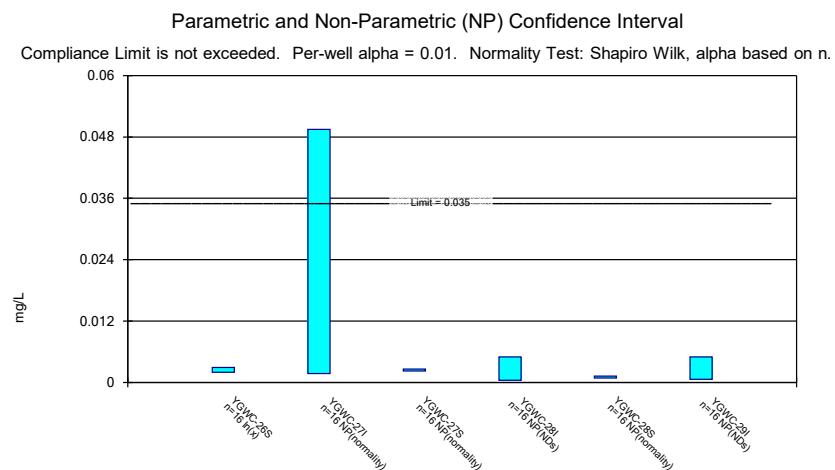
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2



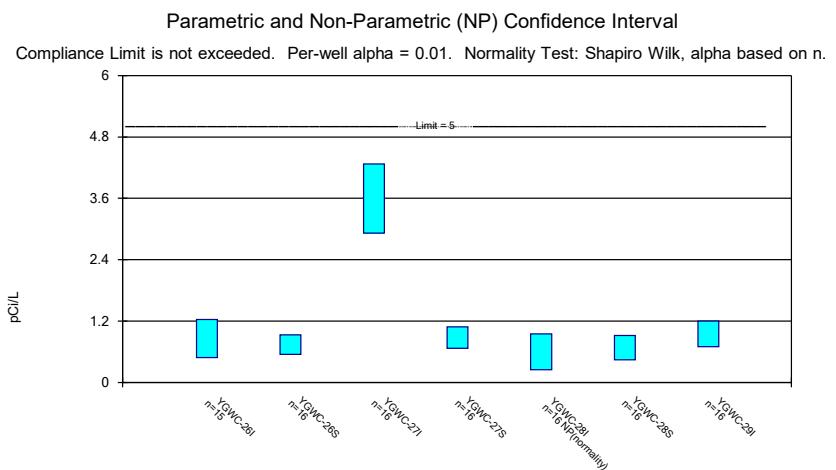
Constituent: Cadmium Analysis Run 5/12/2020 4:06 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Chromium Analysis Run 5/12/2020 4:06 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



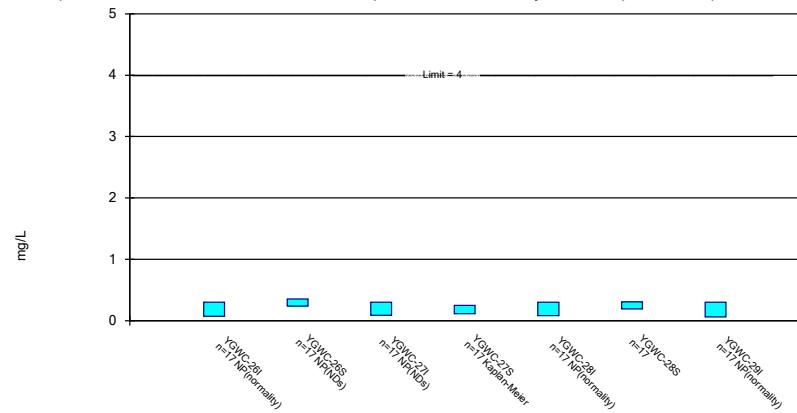
Constituent: Cobalt Analysis Run 5/12/2020 4:06 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Combined Radium 226 + 228 Analysis Run 5/12/2020 4:07 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

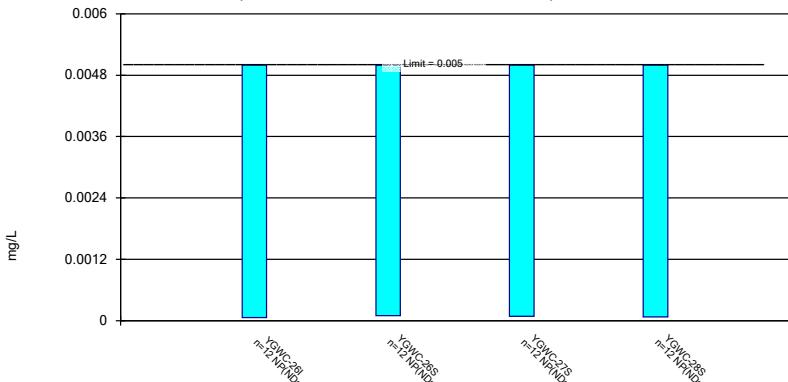


Constituent: Fluoride Analysis Run 5/12/2020 4:07 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Non-Parametric Confidence Interval

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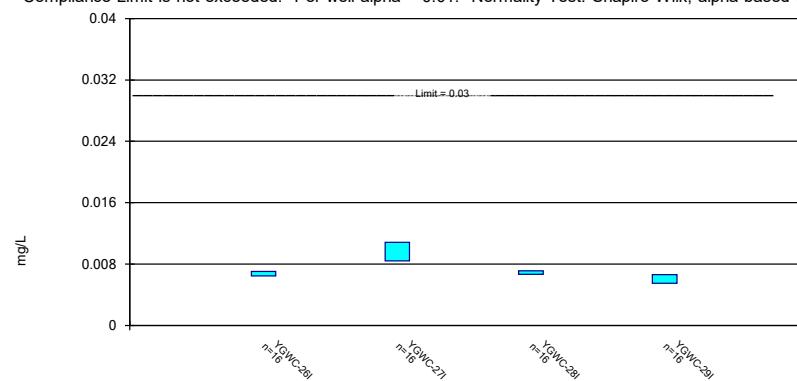


Constituent: Lead Analysis Run 5/12/2020 4:07 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

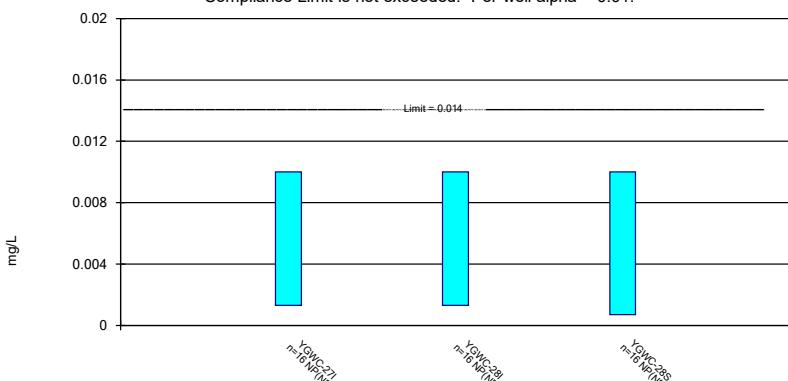


Constituent: Lithium Analysis Run 5/12/2020 4:07 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

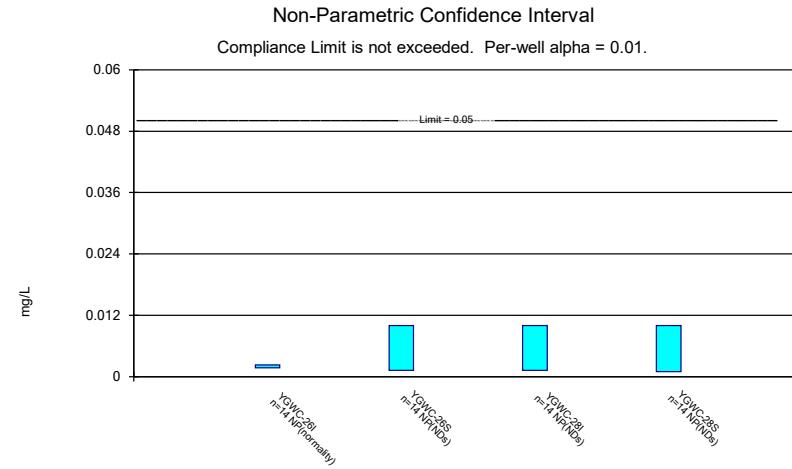
### Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

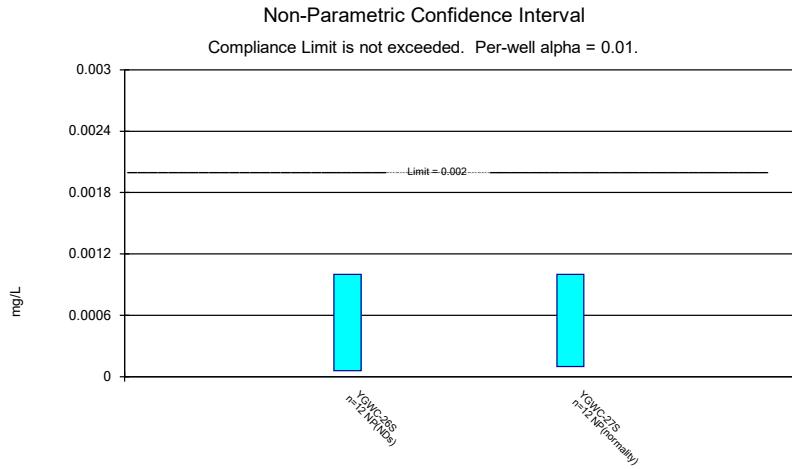


Constituent: Molybdenum Analysis Run 5/12/2020 4:07 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Selenium Analysis Run 5/12/2020 4:07 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Thallium Analysis Run 5/12/2020 4:07 PM View: Appendix IV  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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