



2022 Semiannual Groundwater Monitoring and Corrective Action Report

Plant Yates – AP-1 Permit 038-017D(CCR) Newnan, Georgia

February 28, 2023



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Summary

This summary of the 2022 Semiannual Groundwater Monitoring and Corrective Action Report provides the status of the groundwater monitoring and corrective action program from July 2022 through December 2022 at Georgia Power Company's (Georgia Power's) Plant Yates Ash Pond (AP) AP-1 (the site). Arcadis U.S., Inc. (Arcadis) prepared this summary on behalf of Georgia Power to meet the requirements listed in Part A, Section 6¹ of the U.S. Environmental Protection Agency (USEPA) Coal Combustion Residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant Yates is located at 708 Dyer Road, approximately 8 miles northwest of Newnan and 13 miles southeast of Carrollton in Coweta County, Georgia. Plant Yates originally operated seven coal-fired steam generating units. Five of the units were retired in 2015, and two units were converted from coal to natural gas. CCR material resulting from power generation have historically been transferred and stored at the site. The site is located on the northwestern portion of the Plant Yates property. AP-1 was closed by removal of CCR material. The GA EPD approved Closure Permit No. 038-017D(CCR) for Plant Yates AP-1 on January 6, 2022.

Groundwater at the site is monitored using a comprehensive monitoring system of wells installed to meet federal and state monitoring requirements of Solid Waste Permit (038-017D(CCR)). Routine sampling and reporting began in 2019 after the completion of eight background sampling events.



Plant Yates and the site

Based on groundwater conditions at the site, an assessment monitoring program was established on November 13, 2019. During this 2022 semiannual reporting period, the site remained in assessment monitoring.

During this reporting period, Arcadis conducted a groundwater sampling event in August 2022. Groundwater samples were submitted to Pace Analytical Services, LLC, for analysis. Per the CCR rule, groundwater results were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III² parameters in wells provided in the table below. There were no statistically significant levels (SSLs) detected for Appendix IV³ parameters⁴.

¹ 80 FR 21468, Apr. 17, 2015, as amended at 81 FR 51807, Aug. 5, 2016; 83 FR 36452, July 30, 2018; 85 FR 53561, Aug. 28, 2020

² Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS).

³ Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, selenium, thallium, and radium 226 + 228.

⁴ A statistically significant level SSL-related constituent is determined by comparing the confidence intervals developed to either the constituent's MCL, if available, the USEPA RSL, if no MCL is available, or the calculated background interwell prediction limit.

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Appendix III Parameter	August 2022
Boron	YGWC-44, YGWC-45, YGWC-46A
Calcium	YGWC-45, YGWC-46A, YGWC-52
Chloride	YGWC-44, YGWC-46A
Sulfate	YGWC-45, YGWC-46A
Total Dissolved Solids	YGWC-44, YGWC-45, YGWC-46A, YGWC-52

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program, the site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the site. Reports will be posted to the website and provided to Georgia Environmental Protection Division (GA EPD) semiannually.

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Acronyms and Abbreviations

ACC Atlantic Coast Consulting, Inc.

AP Plant Yates Ash Ponds

CCR Coal Combustion Residuals
CFR Code of Federal Regulations

DO dissolved oxygen

EPD Environmental Protection Division

GAEPD Georgia Environmental Protection Division

GPC Georgia Power Company

GWPS Groundwater Protection Standard

MCL Maximum Contaminant Level

MDL Method Detection Limit

mg/L milligrams per liter

ORP oxidation-reduction potential

QA/QC Quality Assurance/Quality Control

SSI Statistically Significant Increase

SSL statistically significant level

TDS total dissolved solids

USEPA United States Environmental Protection Agency

Professional Certification

This 2022 Semiannual Groundwater Monitoring and Corrective Action Report for the Georgia Power Company Plant Yates AP-1 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. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management, and 40 CFR Part 258.50(g).

Arcadis U.S., Inc.



J. Geoffrey Gay, P.E.
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07.28.23

Date

1 Introduction

This 2022 Semiannual Groundwater Monitoring and Corrective Action Report documents groundwater monitoring conducted at the Georgia Power Company (GPC) Plant Yates Ash Pond (AP) AP-1 (the site) between July through December 2022. 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.

Groundwater monitoring and reporting for CCR units is performed in accordance with the monitoring requirements §§ 257.90 through 257.95 of the Federal CCR Rule and the GAEPD Rule 391-3-4-10(6)(a)-(c). An assessment monitoring notification was placed in the operating record in November 2019 based on statistically significant increases (SSIs) documented in the 2019 Annual Groundwater Monitoring and Corrective Action Report. This report presents the results of the semiannual monitoring for Appendix III and IV of 40 CFR 257 constituents conducted in August 2022.

1.1 Site Description and Background

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.

AP-1 was closed by removal; the CCR material was removed from AP-1 to an on-site landfill. GAEPD provided an acknowledgement of removal of CCR in a letter dated November 3, 2020. A permit application to comply with GAEPD Rules was submitted in November 2018 and approved on January 6, 2022 (038-017D(CCR)). Semiannual reporting is completed pursuant to 391-3-4-.10(6)(c). Areas where CCR Removal Reports have been submitted to GAEPD are shown in **Figure 2**.

1.2 Site Geology and Hydrogeologic Setting

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 2019).

A thin layer of soil from 1 to 2 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 conducted in 2017 (ACC 2021). 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 Plant Yates' AP-1 CCR Unit. 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** along with a series of piezometers and non-network wells installed to supplement characterization and groundwater elevation measurements.

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. The monitoring well network for the site is illustrated on **Figure 3**.

2 Groundwater Monitoring

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed in the second half of 2022 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 3**.

Table 2 summarizes groundwater sampling events conducted at the site from July through December 2022. During the August 2022 event, groundwater samples were collected for both 40 CFR 257 Appendix III and the Appendix IV constituents. Laboratory reports for the monitoring events are presented in **Appendix A**. Field sampling logs are provided in **Appendix B**.

2.1 Monitoring Well Installation and Maintenance

Monitoring well-related activities were limited to visual inspection well conditions before sampling, recording the site conditions, and performing exterior maintenance to provide safe access for sampling. Details regarding the wells are included in **Table 1**, and locations are presented on **Figure 3**.

Monitoring wells are inspected semiannually to determine if any repairs or corrective actions are necessary to meet the requirements of the Georgia Water Well Standards Act (O.C.G.A. § 12-5-134(5)(d)(vii)). In August 2022, monitoring wells were inspected, necessary corrective actions were identified and subsequently completed where necessary, as documented in **Appendix B**. There were no well maintenance issues during this period that required corrective actions.

2.2 Assessment Monitoring

SSIs of Appendix III constituents were identified in the initial detection monitoring event (March 2019). Pursuant to 40 CFR §§ 257.95(b) and 257.95(d)(1), groundwater samples collected in August 2022 from the CCR monitoring wells were analyzed for Appendix III and Appendix IV constituents.

3 Sampling Methodology and Analysis

Groundwater monitoring methods used at the site are described in the following sections.

3.1 Groundwater Flow Direction, Gradient, and Velocity

Before each sampling event, static water elevations were recorded from piezometers and wells in the well network at AP-1. Groundwater elevations recorded during the August 2022 monitoring event are summarized in **Table 3**. A sitewide potentiometric surface map is provided on **Figure 4**; a map for AP-1 is provided on **Figure 5**. The general direction of groundwater flow across the site is towards the west/southwest and is consistent with historical patterns.

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

Specifically:

$$v = rac{k\left(rac{dh}{dl}
ight)}{n_e}$$
 where:

 $v = ext{groundwater seepage velocity}$ k = hydraulic conductivity dh/dl = hydraulic gradient

 $v = ext{n_e}$ n_e = 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). Groundwater flow velocities have been calculated and are presented in **Table 4**. The calculated flow velocity is approximately 1.5 feet per day (548 feet per year). These calculated groundwater velocities across the site are generally consistent with historical calculations and with expected velocities in the site-specific geology.

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). Non-disposable equipment was decontaminated before use and between well locations.

An AquaTroll 600™ (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, temperature, oxidation-reduction potential [ORP], and dissolved oxygen [DO]) during well purging to verify stabilization before sampling. Turbidity was measured using a 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;
- ± 5% for specific conductance;
- Turbidity measurements less than 5 nephelometric turbidity units; and
- ±10% or ±0.2 mg/L (whichever is greater) for DO where DO >0.5 mg/L. If DO <0.5 mg/L no stabilization criteria apply.

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 and daily field calibration forms are included in **Appendix B**.

3.3 Laboratory Analysis

Groundwater samples collected during the August 2022 semiannual assessment event were analyzed for Appendix III parameters as well as Appendix IV parameters in accordance with 40 CFR §§ 257.95(b) and 257.95(d)(1). **Table 5** provides a summary of the constituents monitored during the event. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in **Appendix A**.

Analytical data collected from the semiannual sampling for AP-1 and the upgradient wells are summarized in **Table 6a and Table 6b**, respectively. 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 A**.

3.4 Data Quality Assurance/Quality Control and Validation

During each sampling event, quality assurance/quality control (QA/QC) samples were collected at a rate of one per 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 were 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 included in **Appendix A** 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 data are considered useable for meeting project objectives, and the results are considered valid. The complete results of the data quality evaluations are provided in **Appendix A**.

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 samples collected from the AP-1 groundwater monitoring network pursuant to § 257.93(f) in August 2022. 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 Constituents

Groundwater data were evaluated using interwell prediction limits for Appendix III parameters. This method uses sitewide pooled upgradient monitoring well data to establish a background statistical limit. Data from the semiannual

events 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 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 exhibiting 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 Appendix IV Assessment Monitoring Statistics

Parametric tolerance limits were used to calculate background limits from pooled upgradient well data for the wells identified in **Table 1** for Appendix IV parameters with a target of 95 percent confidence and 95 percent coverage.

The confidence and coverage levels for non-parametric tolerance limits depend on 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;
- For the following constituents:

Cobalt
 0.006 milligram per liter (mg/L)

Lead 0.015 mg/L
 Lithium 0.040 mg/L
 Molybdenum 0.100 mg/L; and

 The background level for constituents for which 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). On February 22, 2022, GA EPD updated the Rules for Solid Waste Management 391-3-4-.10(6) to incorporate updated Federal GWPS where an MCL has not been established. These levels were specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L), except when site specific background concentrations of these constituents are higher. Statistical evaluation for the Spring 2022 event was updated to reflect these changes.

GWPS have been established for statistical comparison of Appendix IV constituents at AP-1. **Table 7** summarizes the background levels established at each monitoring well for the August 2022 sampling event along with the GWPS.

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. 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. Analytical data from the semiannual assessment monitoring event (August 2022) was statistically analyzed in accordance with the Statistical Analysis Plan (Groundwater Stats Consulting 2019).

4.2.1 Appendix III Constituents

Based on review of the Appendix III statistical analysis presented in **Appendix C**, Appendix III constituent concentrations 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 C**.

4.2.2 Appendix IV Assessment Monitoring Constituents

Statistical analysis of the August 2022 Appendix IV data at AP-1 was completed using the GWPS established according to both 40 CFR § 257.95(h) and GAEPD Rule 391-3-4-.10(6)(a). No Statistically Significant Levels (SSLs) were identified.

5 Monitoring Program Status

In accordance with 40 CFR § 257.94(e), an assessment monitoring program was implemented in November 2019. No statistical exceedance of a GWPS for Appendix IV parameters has been identified. Pursuant to 40 CFR § 257.96(b), groundwater will continue to be monitored at AP-1 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

This 2022 Semiannual Groundwater Monitoring and Corrective Action Report was prepared to fulfill the requirements of USEPA's CCR Rule 40 CFR § 257.95 and GAEPD Rule 391-3-4-.10. Statistical evaluations of the groundwater monitoring data for the site identified no exceedance of a GWPS for an Appendix IV constituent.

The next assessment monitoring event is scheduled for February 2023. The February semiannual monitoring event will include sampling and analysis of all Appendix III and IV constituents.

7 References

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Tables





Well ID	Installation Date	Top of Casing Elevation (ft)	Bottom Depth (ft bTOC)	Bottom Elevation (ft)	Depth to Top of Screen (ft bTOC)	Top of Screen Elevation (ft)	Purpose			
Upgradient Wells										
YGWA-4I	5/21/2014	784.21	48.81	735.40	38.51	745.70	Upgradient			
YGWA-5I	5/21/2014	784.54	58.94	725.60	48.64	735.90	Upgradient			
YGWA-5D	5/21/2014	784.53	129.13	655.40	78.83	706.00	Upgradient			
YGWA-17S	9/10/2015	783.05	39.85	743.20	29.55	753.20	Upgradient			
YGWA-18S	9/8/2015	790.57	39.97	750.60	29.97	760.90	Upgradient			
YGWA-18I	9/8/2015	790.57	79.97	710.60	69.67	720.90	Upgradient			
YGWA-20S	9/29/2015	767.12	29.52	737.60	19.22	747.90	Upgradient			
YGWA-21I	9/28/2015	783.70	79.90	703.80	69.60	714.10	Upgradient			
YGWA-39	7/7/2016	818.19	68.59	749.60	58.09	760.10	Upgradient			
YGWA-40	7/7/2016	815.73	48.23	767.50	37.73	778.00	Upgradient			
YGWA-1I	5/20/2014	836.60	53.60	783.00	43.30	793.30	Upgradient			
YGWA-1D	5/20/2014	837.25	128.85	708.40	78.05	759.20	Upgradient			
YGWA-2I	5/20/2014	866.25	63.75	802.50	53.45	812.80	Upgradient			
YGWA-3I	5/20/2014	796.55	59.05	737.50	48.85	747.70	Upgradient			
YGWA-3D	5/20/2014	796.78	134.18	662.60	83.88	712.90	Upgradient			
YGWA-14S	5/20/2014	748.76	34.96	713.80	24.66	724.10	Upgradient			
YGWA-30I	9/23/2015	762.58	59.48	703.10	49.18	713.40	Upgradient			
YGWA-47	7/11/2016	758.22	59.19	696.41	48.62	709.60	Upgradient			
GWA-2	4/12/2007	805.62	52.02	753.60	41.82	763.80	Upgradient			
Downgradient Wells										
YGWC-44	7/13/2016	758.35	89.85	665.65	78.35	680.00	Detection			
YGWC-45	7/10/2016	719.36	72.86	643.64	62.86	656.50	Detection			
YGWC-46A	6/1/2020	733.04	70.79	659.31	60.79	672.25	Detection			
YGWC-52	5/28/2020	755.86	79.22	673.68	69.22	686.64	Detection			
Piezometers										
PZ-53	11/18/2019	732.90	72.00	657.90	61.71	671.19	Water Levels			
PZ-09S	5/19/2014	712.08	59.28	650.52	48.98	663.10	Water Levels			
PZ-09I	5/19/2014	712.13	79.33	630.47	69.03	643.10	Water Levels			
PZ-10S	5/19/2014	700.43	18.63	679.47	8.33	692.10	Water Levels			
PZ-10I	5/19/2014	700.25	48.95	648.85	38.65	661.60	Water Levels			

Notes
ft bTOC - feet below top of casing

Elevation in U.S. Survey Feet (NAVD88) based on June 2020 well survey

Table 2 Groundwater Sampling Event Summary 2022 Semiannual Groundwater Monitoring and Corrective Action Report Georgia Power Company Plant Yates AP-1



Well ID	Hydraulic Location	Semiannual Assessment
Well ID	Hydraulic Location	August 2022
YGWA-47	Upgradient	X
YGWC-44	Downgradient	X
YGWC-45	Downgradient	X
YGWC-46A	Downgradient	X
YGWC-52	Downgradient	X

Notes

1. All well analyzed for Appendix III and IV.

Appendix III = Consituents for Detection Monitoring - 40 CFR Part 257 Appendix III.

Appendix IV = Constituents for Assessment Monitoring - 40 CFR Part 257 Appendix IV.





Well ID	Dated Measured	TOC (ft)	Depth-to-Water (ft bTOC)	Groundwater Elevation (ft)
YGWA-47	8/29/2022	758.22	28.16	730.06
YGWC-44	8/29/2022	758.35	49.77	708.58
YGWC-45	8/29/2022	719.36	22.28	697.08
YGWC-46A	8/29/2022	733.04	38.48	694.56
YGWC-52	8/29/2022	755.86	37.24	718.62
PZ-09S	8/29/2022	712.08	17.35	694.73
PZ-09I	8/29/2022	712.13	17.57	694.56
PZ-10S	8/29/2022	700.43	7.37	693.06
PZ-10I	8/29/2022	700.25	13.30	686.95
PZ-53	8/29/2022	732.90	38.36	694.54

ft bTOC - feet below top of casing

TOC - top of casing

Elevation in U.S. Survey Feet (NAVD88)

Table 4 Groundwater Flow Velocity Calculations 2022 Semiannual Groundwater Monitoring and Corrective Action Report Georgia Power Company Plant Yates AP-1



Equation

V = K (dh/dl) where: V = groundwater velocity n_e K = hydraulic conductivity

dh/dl = i = hydraulic gradient

n_e = effective porosity

Values Used in Calculation

	Value		Source
K:	3.70E-03	cm/sec	See note 1
	10.5	ft/day	
i	= 0.028	unitless	Hydraulic gradient from: YGWA-47 to YGWC-45 (Aug. 2022) Distance (ft): 1172 Elevations (ft): YGWA-47: 730.06 YGWC-45: 697.08
n _e	= 0.200	unitless	See note 2

Average Linear Velocity

Aug. 2022

 $V_{min} = (10.5) (0.028)$

0.2

 $V_{min} = 1.5$ ft/day, or 548 ft/year

Notes

- 1. Slug tests performed by Atlantic Coast Consulting, Inc. in 2017 (ACC 2021).
- 2. Default value recommended by USEPA for silty sand-type soil (USEPA 1989).

Table 5 Summary of Groundwater Monitoring Parameters 2022 Semiannual Groundwater Monitoring and Corrective Action Report Georgia Power Company Plant Yates AP-1



40 CFR 257 Appendix III	40 CFR 257 Appendix IV
Boron	Antimony
Calcium	Arsenic
Chloride	Barium
Fluoride	Beryllium
рН	Cadmium
Sulfate	Chromium
Total Dissolved Solids	Cobalt
	Fluoride
	Lead
	Lithium
	Mercury
	Molybdenum
	Combined Radium - 226/228
	Selenium
	Thallium

Notes:

CFR - Code of Federal Regulations





	Analyte	Location Sample Date Units	YGWC-44 8/31/2022	YGWC-45 8/31/2022	YGWC-46A 8/31/2022	YGWC-52 8/31/2022
	pН	SU	5.77	6.56	6.87	5.58
	Boron	mg/l	0.54	0.33	2.1	< 0.040
	Calcium	mg/l	30.8	51.8	110	41.8
Appendix III	Chloride	mg/l	14.5	5.4	29.9	3.4
	Fluoride	mg/l	0.055 J	0.1	0.12	0.59 J
	Sulfate	mg/l	130	177	459	122
	Total Dissolved Solids	mg/l	343	445	948	266
	Antimony	mg/l	< 0.0030	< 0.0030	< 0.0030	< 0.0030
	Arsenic	mg/l	< 0.0050	< 0.0050	< 0.0050	< 0.0050
	Barium	mg/l	0.073	0.052	0.036	0.017
	Beryllium	mg/l	< 0.00050	< 0.00050	< 0.00050	< 0.00050
	Cadmium	mg/l	< 0.00050	< 0.00050	< 0.00050	< 0.00050
	Chromium	mg/l	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Annondiy IV	Cobalt	mg/l	0.00099 J	0.00069 J	0.0017 J	0.00096 J
Appendix IV	Fluoride	mg/l	0.055 J	0.10	0.12	0.59 J
	Lead	mg/l	< 0.0010	< 0.0010	< 0.0010	< 0.0010
	Lithium	mg/l	0.013 J	0.012	0.015 J	0.0037 J
	Mercury	mg/l	< 0.00020	< 0.00020	< 0.00020	< 0.00020
	Molybdenum	mg/l	< 0.010	0.0011	0.0017 J	< 0.010
	Combined Radium - 226/228	pci/l	0.145 U	0.598 U	1.51	0.322 U
	Thallium	mg/l	< 0.0010	< 0.0010	< 0.0010	< 0.0010

- 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.

Laboratory Qualifiers:

- J = Estimated concentration above the method detection limit and below the reporting limit.
- U the substance was detected below the Minium Detection Concentration (MDC) and the precision of the laboratory instruments could not produce a reliable value. Therefore, the value followed by U is qualified by the laboratory as estimated.



	Analyte		GWA-2	YGWA-1D	YGWA-1I	YGWA-2I	YGWA-3I	YGWA-3D	YGWA-4I
	Analyte	Units -	8/30/2022	8/30/2022	8/31/2022	8/30/2022	8/31/2022	8/31/2022	8/31/2022
	рН	SU	5.39	7.2	5.64	7.04	7.49	7.65	5.50
	Boron	mg/l	< 0.0086	< 0.0086	< 0.043 D3	< 0.0086	< 0.0086	< 0.0086	< 0.0086
	Calcium	mg/l	23.5	14.9	1.9	25.4	23.5	28.7	8.9
Appendix III	Chloride	mg/l	6.3	1.3	1.5	1.2	1.3	1.3	4.4
	Fluoride	mg/l	0.086 J	0.093 J	0.065 J	0.12	0.13	0.42	0.061 J
	Sulfate	mg/l	101	10.2	4.8	20.1	13.9	6.9	8.0
	Total Dissolved Solids	mg/l	244	105	57.0	153	137	141	92.0
	Antimony	mg/l	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
	Arsenic	mg/l	0.0024 J	< 0.0022	< 0.0022	0.0027 J	< 0.0022	0.0028 J	< 0.0022
	Barium	mg/l	0.031	0.0066	0.0074	0.0030 J	0.0030 J	0.0048 J	0.013
	Beryllium	mg/l	< 0.000054	< 0.00054	< 0.00027	< 0.00054	< 0.00054	< 0.000054	< 0.00054
	Cadmium	mg/l	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011
	Chromium	mg/l	< 0.0011	0.0011 J	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Appendix IV	Cobalt	mg/l	0.075	< 0.00039	0.00085 J	< 0.00039	< 0.00039	< 0.00039	< 0.00039
Appendix IV	Lead	mg/l	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089
	Lithium	mg/l	0.0025 J	0.013 J	< 0.0036	0.0044 J	0.022 J	0.021 J	0.013 J
	Mercury	mg/l	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013
	Molybdenum	mg/l	< 0.00074	0.0094 J	0.0055 J	0.0068 J	0.0068 J	0.011	< 0.00074
	Combined Radium - 226/228	pCi/l	1.52	0.827	0.490 U	0.699 U	1.33	2.12	0.962
	Selenium	mg/l	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
	Thallium	mg/l	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

Plant Yates - AP-1

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.

Appendix III = Consituents for Detection Monitoring - 40 CFR Part 257 Appendix III.

Appendix IV = Consituents for Assessment Monitoring - 40 CFR Part 257 Appendix IV.

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

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 produce a reliable value. Therefore, the value followed by U is qualifited by the laboratory as estimated.



	Analyte	Units —	YGWA-5D	YGWA-5I	YGWA-14S	YGWA-17S	YGWA-18I	YGWA-18S
	Analyte	Units	8/30/2022	8/30/2022	8/31/2022	8/30/2022	8/30/2022	8/30/2022
	рН	SU	7.40	5.00	5.15	4.68	5.82	5.18
	Boron	mg/l	0.0098 J	< 0.0086	0.015 J	0.013 J	< 0.0086	0.014 J
	Calcium	mg/l	24.8	2.5	1.3	3.0	5.7	0.77 J
Appendix III	Chloride	mg/l	3.5	4.4	4.6	12.0	7.9	7.0
	Fluoride	mg/l	0.085 J	< 0.050	0.053 J	< 0.050	< 0.050	< 0.050
	Sulfate	mg/l	5.7	2.4	5.8	4.7	0.78 J	1.3
	Total Dissolved Solids	mg/l	148	86.0	51.0	81.0	100	52.0
	Antimony	mg/l	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078
	Arsenic	mg/l	0.0031 J	< 0.0022	< 0.0022	< 0.0022	< 0.0022	< 0.0022
	Barium	mg/l	0.0079	0.017	0.0075	0.017	0.017	0.012
	Beryllium	mg/l	< 0.000054	< 0.000054	0.00020 J	0.00010 J	< 0.000054	0.000082 J
	Cadmium	mg/l	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011
	Chromium	mg/l	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	0.0015 J
Annondiv IV	Cobalt	mg/l	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039	< 0.00039
Appendix IV	Lead	mg/l	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089
	Lithium	mg/l	0.0068 J	0.0035 J	< 0.00073	< 0.00073	0.0036 J	0.0014 J
	Mercury	mg/l	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013
	Molybdenum	mg/l	0.00089 J	< 0.00074	< 0.00074	< 0.00074	< 0.00074	< 0.00074
	Combined Radium - 226/228	pCi/l	5.34	0.720 U	0.421 U	1.08	1.01	0.611 U
	Selenium	mg/l	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
	Thallium	mg/l	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

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.

Appendix III = Consituents for Detection Monitoring - 40 CFR Part 257 Appendix III.

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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 produce a reliable value. Therefore, the value followed by U is qualifited by the laboratory as estimated.



	Analyte		YGWA-20S	YGWA-21I	YGWA-30I	YGWA-39	YGWA-40	YGWA-47
	Analyte	Units	8/31/2022	8/30/2022	8/31/2022	8/31/2022	8/31/2022	8/31/2022
·	рН	SU	5.38	6.58	5.87	5.30	4.53	5.32
	Boron	mg/l	< 0.043 D3	0.012 J	< 0.0086	0.14	0.062	0.0091 J
	Calcium	mg/l	2.4	7.3	1.3	16.3	6.2	9.6
Appendix III	Chloride	mg/l	2.9	2.4	1.8	6.7	6.3	3.5
	Fluoride	mg/l	< 0.050	0.10	0.060 J	0.065 J	0.050 J	0.065 J
	Sulfate	mg/l	< 0.50	3.2	1.1	10.9	17.9	48.0
	Total Dissolved Solids	mg/l	62.0	122	33.0 D6	248	92.0	116
	Antimony	mg/l	< 0.00078	0.0046	< 0.00078	< 0.00078	< 0.00078	< 0.00078
	Arsenic	mg/l	< 0.0022	0.0022 J	< 0.0022	0.0029 J	< 0.0022	< 0.0022
	Barium	mg/l	0.011	0.0085	0.0068	0.035	0.035	0.029
	Beryllium	mg/l	< 0.00027	< 0.000054	< 0.000054	< 0.000054	0.00025 J	< 0.000054
	Cadmium	mg/l	< 0.00011	< 0.00011	< 0.00011	0.00044 J	< 0.00011	< 0.00011
	Chromium	mg/l	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Appendix IV	Cobalt	mg/l	< 0.00039	0.0066	0.0040 J	0.00085 J	< 0.00039	0.00096 J
Appendix IV	Lead	mg/l	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089	< 0.00089
	Lithium	mg/l	< 0.00073	0.0079 J	0.0012 J	0.0065 J	< 0.00073	0.0037 J
	Mercury	mg/l	< 0.00013	< 0.00013	< 0.00013	< 0.00013	0.00064	< 0.00013
	Molybdenum	mg/l	< 0.00074	< 0.00074	< 0.00074	0.0036 J	< 0.00074	< 0.00074
	Combined Radium - 226/228	pCi/l	0.184 U	1.27	0.506 U	0.937	0.513 U	0.714 U
	Selenium	mg/l	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014	< 0.0014
	Thallium	mg/l	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018

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.

Appendix III = Consituents for Detection Monitoring - 40 CFR Part 257 Appendix III.

Appendix IV = Consituents for Assessment Monitoring - 40 CFR Part 257 Appendix IV.

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

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 produce a reliable value. Therefore, the value followed by U is qualifited by the laboratory as estimated.

Table 7 Summary of Background Levels and Groundwater Protection Standards 2022 Semiannual Groundwater Monitoring and Corrective Action Report Georgia Power Company



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Constituent	Units	Background	GWPS
August 2022			
Antimony	mg/L	0.0047	0.006
Arsenic	mg/L	0.005	0.010
Barium	mg/L	0.071	2
Beryllium	mg/L	0.0005	0.004
Cadmium	mg/L	0.00063	0.005
Chromium	mg/L	0.0093	0.100
Cobalt	mg/L	0.035	0.035 ¹
Fluoride	mg/L	0.68	4
Lead	mg/L	0.0013	0.015
Lithium	mg/L	0.03	0.040
Mercury	mg/L	0.00064	0.002
Molybdenum	mg/L	0.014	0.1
Selenium	mg/L	0.005	0.050
Thallium	mg/L	0.001	0.002
Combined Radium - 226/228	pCi/L	6.92	6.92 ¹

Notes

GWPS - Groundwater Protection Standard per 40 CFR §257.95(h).

Site background - Tolerance limits calculated from pooled upgradient well data.

1. Background concentration is higher than the federally promulgated value (0.006 mg/L for Co). Background is higher than radium MCL (5 mg/L). Therefore background is the GWPS.

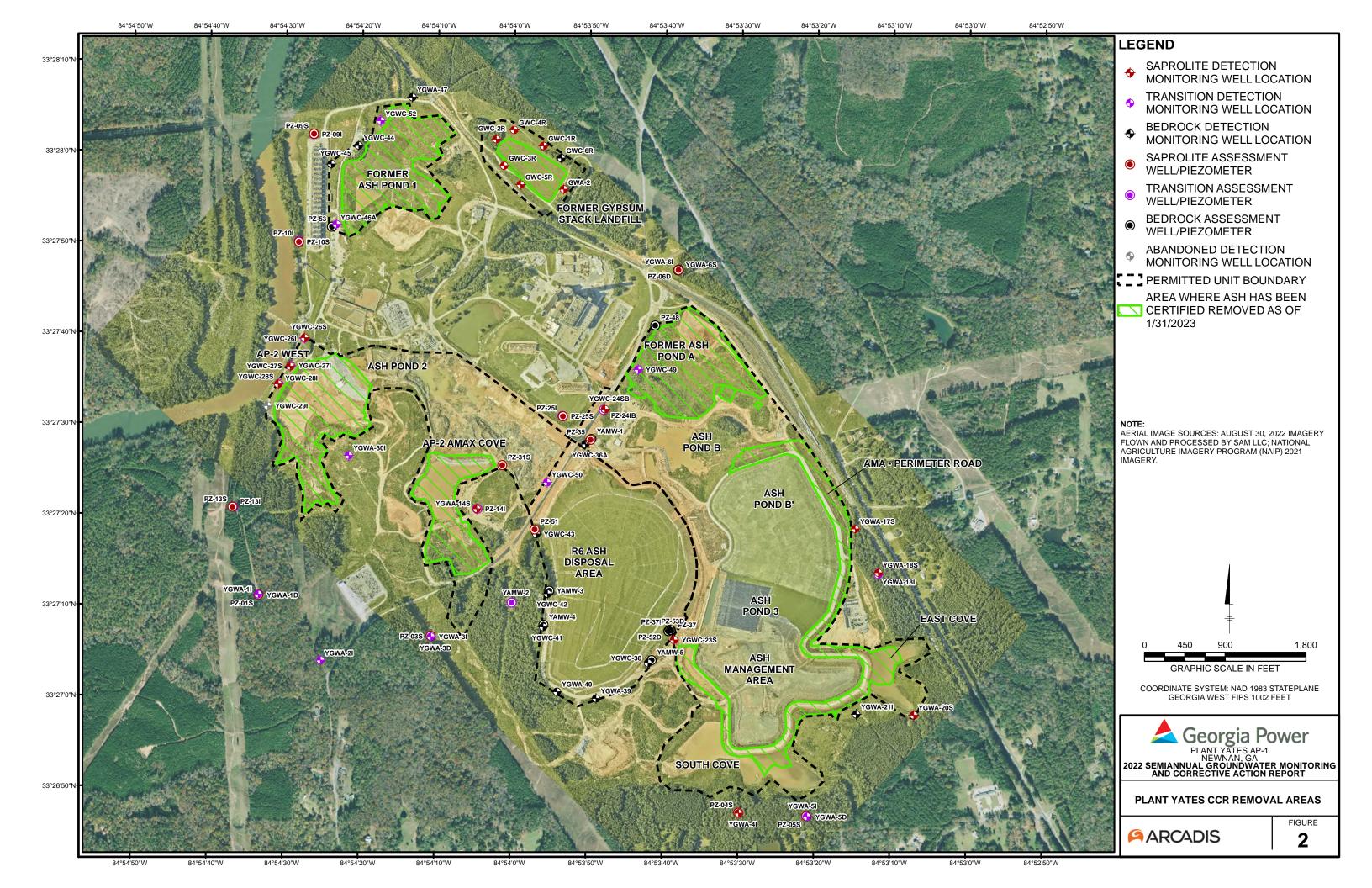
Acronyms and Abbreviations:

GWPS - Groundwater Protection Standard

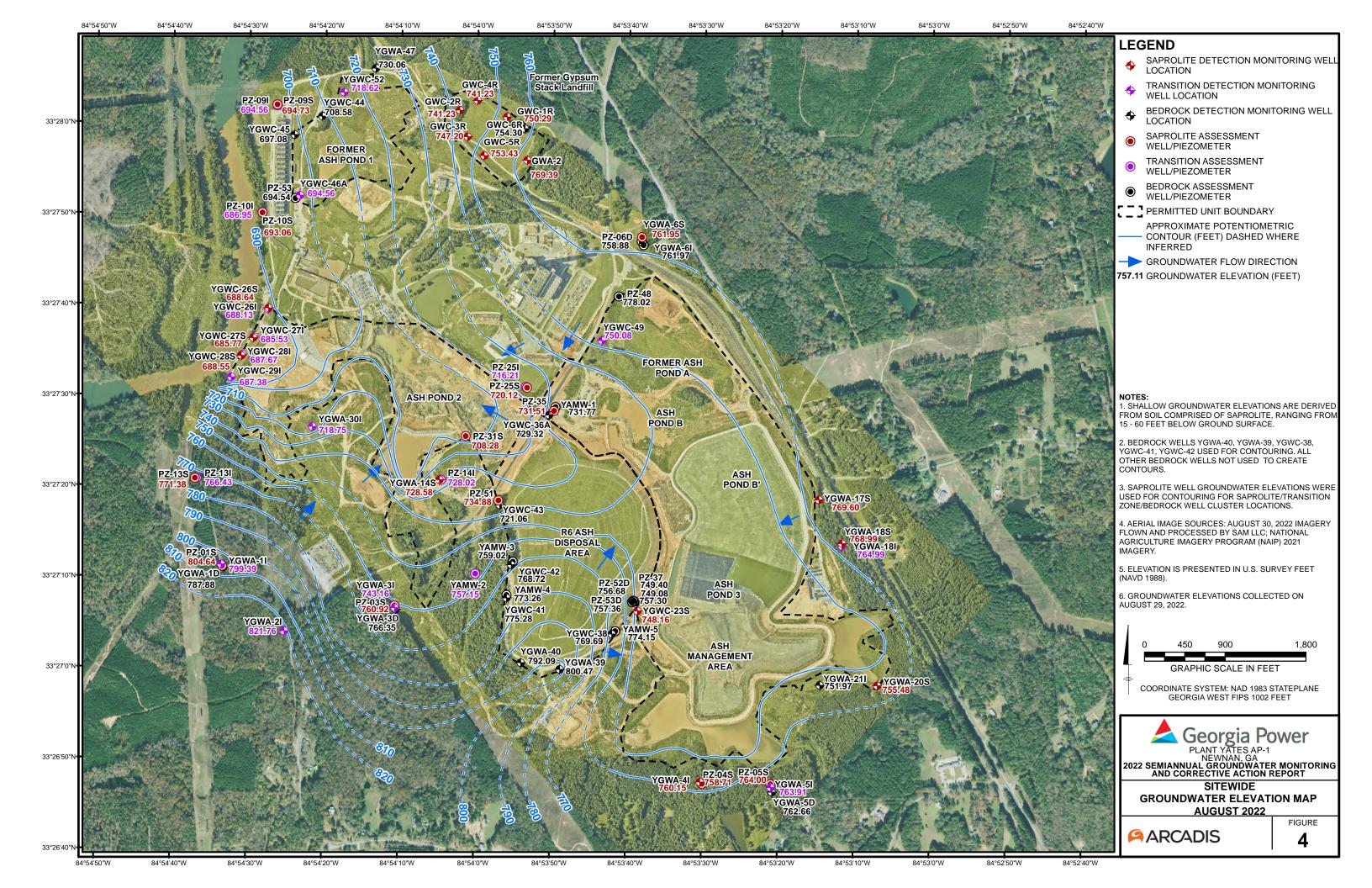
pCi/L - picoCuries per liter

Figures











Appendix A

Laboratory Analytical and Data Validation Reports



Georgia Power Co. - Plant Yates

Data Review Report

Metals, General Chemistry, and Radium Analyses

SDGs #92623537 and 92623538

Analyses Performed By:

Pace Analytical Services – Asheville, North Carolina Pace Analytical Services – Peachtree Corners, Georgia Pace Analytical Services – Greensburg, Pennsylvania

Report #47078R Review Level: Tier II Project: 30143607.3A

Summary

This Data Review Report summarizes the review of Sample Delivery Groups (SDGs) #92623537 and 92623538 for samples collected in association with the Georgia Power Company – Plant Yates. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the chain of custody form and a table summarizing the data validation qualifiers. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
					RAD	MET	GEN CHEM
YGWC-52	92623537001 92623538001	Water	8/31/2022		Х	Х	Х
YGWC-46A	92623537002 92623538002	Water	8/31/2022		Х	Х	Х
AP-1-DUP-1	92623537003 92623538003	Water	8/31/2022	YGWC-46A	Х	Х	Х
AP-1 EB-1	92623537004 92623538004	Water	8/31/2022		Х	Х	Х
AP-1 FB-1	92623537005 92623538005	Water	8/31/2022		X	Х	X
YGWC-44	92623537006 92623538006	Water	8/31/2022		X	X	X
YGWC-45	92623537007 92623538007	Water	8/31/2022		Х	Х	Х

Notes:

- Metals and total dissolved solids (TDS) analysis performed by Pace Analytical Services Peachtree Corners, Georgia.
- 2. Anions (chloride, fluoride, and sulfate) analysis performed by Pace Analytical Services Asheville, North Carolina.
- 3. Radium analysis performed by Pace Analytical Services Greensburg, Pennsylvania.
- 4. pH analysis performed as a field measurement.

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Reported		Performance Acceptable		Not
No	Yes	No	Yes	Required
	X		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
		No Yes X X X X X X X X X X X X X	Reported Acce No Yes No X X X X X X X X X X X X X	No Yes No Yes X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X X

Note:

QA = quality assurance

Inorganic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010D, 6020B, 7470A, 9315, and 9320; Standard Method (SM) SM4500-H+ B and SM2540C; and USEPA Method 300.0. Data were reviewed in accordance with USEPA 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), USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2), and the USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, EPA 542-R-20-006, November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, OSWER 9240.1-45, October 2004, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
 - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
 - E The reported value is estimated due to the presence of interference.
 - N Spiked sample recovery is not within control limits.
 - Duplicate analysis is not within control limits.
- Validation Qualifiers
 - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
 - UB Analyte considered non-detect at the listed value due to associated blank contamination.
 - R The sample results are rejected.

Data Review Report

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Metals Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010D/6020B	Water	180 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.
SW-846 7470A	Water	28 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.

Note:

s.u. = standard units

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Boron was detected in the associated equipment blank AP-1 EB-1; however, the associated sample results were greater than the BAL and/or were non-detect. No qualification of the sample results was required.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater.

The MS/MSD analysis was performed using sample AP-DUP-1 in association with SW-846 6010D analysis, however the concentration of calcium in the unspiked sample was greater than four-times the spike concentration. The MS/MSD sample results were not evaluated.

MS/MSD analysis was not performed using a sample from this SDG in association with SW-846 6020B and SW-846 7470A analysis.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

MS/MSD analysis was performed in replacement of the laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPDs.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
	Calcium	110	105	4.7%
	Barium	0.036	0.037	2.7%
YGWC-46A / AP-1-DUP-1	Boron	2.1	2.1	0.0%
16W6-40A7 AI -1-001 -1	Cobalt	0.0017 J	0.0019 J	
	Lithium	0.015 J	0.015 J	AC
	Molybdenum	0.0017 J	0.0018 J	

Note:

AC = Acceptable

The differences in the results between the parent sample YGWC-46A and field duplicate sample AP-1-DUP-1 were acceptable.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Metals

METALS: SW-846 6010D/6020B/7470A		orted	Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrom Inductively Coupled Plasma-Mass Spectrometry (ICP-Management Atomic Absorption – Manual Cold Vapor (CV)		AES)			
Tier II Validation					
Holding Times		Х		Х	
Reporting limits (units)		Х		Х	
Blanks	ı	1	I	ı	1
A. Method Blanks		Х		Х	
B. Equipment/Field Blanks		Х	Х		
Laboratory Control Sample (LCS) %R		Х		Х	
Matrix Spike (MS) %R		Х		Х	
Matrix Spike Duplicate (MSD) %R		Х		Х	
MS/MSD Precision (RPD)		Х		Х	
Laboratory Duplicate (RPD)	Х				X
Field Duplicate (RPD)		X		Х	

Notes:

%R Percent recovery

RPD Relative percent difference

General Chemistry Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
pH by SM4500-H+ B	Water	ASAP	Cool to <6°C
Total Dissolved Solids (TDS) by SM2540C	Water	7 days from collection to analysis	Cool to <6°C
Chloride, Fluoride, and Sulfate by USEPA 300.0	Water	28 days from collection to analysis	Cool to <6°C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

MS/MSD analysis was not performed using a sample from this SDG in association with this SDG.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

Laboratory duplicate analysis was not performed using a sample from this SDG.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
	TDS	948	882	7.2%
YGWC-46A / AP-1-DUP-1	Chloride	29.9	30.0	0.3%
1000- 1 0A/AI-1-001-1	Fluoride	0.12	0.12	AC
	Sulfate	459	454	1.1%

Note:

AC = Acceptable

The differences in the results between the parent sample YGWC-46A and field duplicate sample AP-1-DUP-1 were acceptable.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for General Chemistry

General Chemistry: SM4500-H+ B, SM2540C, USEPA 300.0	Rep	orted		rmance eptable	Not Required
300.0	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding Times		Х		Х	
Reporting limits (units)		Х		Х	
Blanks	ı		1	ı	1
A. Method Blanks		Х		Х	
B. Equipment/Field Blanks		Х		Х	
Laboratory Control Sample (LCS) %R		Х		Х	
Matrix Spike (MS) %R	Х				X
Matrix Spike Duplicate (MSD) %R	Х				Х
MS/MSD Precision (RPD)	Х				Х
Laboratory Duplicate (RPD)	Х				Х
Field Duplicate (RPD)		Х		Х	

Notes:

%R Percent recovery

RPD Relative percent difference

Radiological Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Radium-226 by SW-846 9315	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.
Radium-228 by SW-846 9320	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.

Note:

s.u. = standard units

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and field/rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field/rinse blanks measure contamination of samples during field operations.

Blank results should be verified to be accurately reported and that tolerance limits (±2 sigma or standard deviation) were not exceeded; and blank results verified to be less than the minimum detectable concentration (MDC).

For blanks to be considered not applicable, verify net blank results are less than the associated uncertainty by evaluating the blank results based on the following three criteria. If either of these criteria is true, the blank is considered not suspect of contamination (or non-detect).

- 1. Is the blank result less than the uncertainty and less than the MDC?
- 2. Does the blank have an uncertainty greater than the result (or indistinguishable from background) or does the blank result fall between its uncertainty and its MDC?

If the blank QC results fall outside the appropriate tolerance limits or if the net blank results are not less than the associated uncertainty, the following equation for normalized absolute difference (NAD) should be used in determining the effect of possible blank contamination on the sample results:

Normalized absolute difference
$$_{MethodBlan \, k} = \frac{ / \, Sample \, - \, Blank \, / }{ \sqrt{ \left(U_{Sample} \, \right)^2 + \left(U_{Blank} \, \right)^2 }}$$

Where:

Usample = uncertainty of the sample

U_{Blank} = uncertainty of the blank

Sample = concentration of isotope in sample

Blank = concentration of isotope in blank

Normalized Absolute Difference	Qualification
> 2.58	None
1.96 > x < 2.58	J
x < 1.96	J*

Note:

Radium-228, Radium-226, and total Radium were detected in the QA blanks, however, the activities were measured as less than the uncertainty and MDC or between the uncertainty and MDC as described above. Hence, the blank results are considered non-detect and no qualification of the results was required.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

MS samples are not typically analyzed for gamma spectral content due to the inability of the laboratory to homogenize spike material with the sample.

If performed, the spike analysis must exhibit a percent recovery within the control limits of 70% to 130%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits.

In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of $< \pm 3$ sigma for either.

The numerical performance indicator for a matrix spike sample is calculated by:

$$Z_{MS} = \frac{x - x_0 - c}{\sqrt{u^2(x) + u^2(x_0) + u^2(c)}}$$

Where:

x = measured concentration of the spiked sample.

 x_0 = measured concentration of the unspiked sample.

c = spike concentration added.

 $u^2(x)$, $u^2(x0)$, $u^2(c)$ = the squares of the respective standard uncertainties of these values.

MS performance for all matrices is acceptable when the numerical performance indicator calculation yields a value between ±3 sigma. Warning limits have been established as ±2 sigma.

MS analysis was not performed using a sample from this SDG.

^{* =} Minimally the result should be qualified as estimated, J; however, if other quality indicators are deficient the validator may determine the result should be qualified as rejected, R

3.2 Laboratory Duplicate Analysis

Duplicate analyses are indicators of laboratory precision based on each sample matrix. For replicate analysis results to be considered in agreement the duplicate error ratio (DER) must be less than 2.13. In the event the DER is outside of the limit of 2.13, a numerical indicator to make assessments is calculated, with a limit of ±3 sigma or standard deviation.

The numerical performance indicator for laboratory duplicates is calculated by:

$$Z_{\text{Dup}} = \frac{x_1 - x_2}{\sqrt{u^2(x_1) + u^2(x_2)}}$$

Where:

 x_1 , x_2 = two measured activity concentrations.

 $u^2(x_1)$, $u^2(x_2)$ = the combined standard uncertainty of each measurement squared.

Duplicate sample performance is acceptable when the numerical performance indicator calculation yields a value between ±3 sigma. Warning limits have been established as ±2 sigma.

Laboratory duplicate analysis was not performed using a sample from this SDG.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. There are no specific review criteria for radiological field replicate analyses comparability. The degree of agreement between these replicates is to be used in conjunction with all of the remaining quality control results as an aid in the decision as to the overall quality of the data. Data are not to be qualified due to field replicates alone. To determine the level of agreement between the replicates, the following guidelines have been established:

Data should be considered in agreement if results are within a factor of four of each other. Data between a factor of four and five of each other should be considered as a minor discrepancy and data greater than a factor of five should be considered a major discrepancy.

The field duplicate sample results are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
	Radium-226	0.737 ± 0.230	0.512 ± 0.201	
YGWC-46A / AP-1-DUP-1	Radium-228	0.787 ± 0.494	0.968 ± 0.522	AC
	Total Radium	1.51 ± 0.724	1.48 ± 0.723	

Note:

AC = Acceptable

The differences in the results between the parent sample YGWC-46A and field duplicate sample AP-DUP-1 were acceptable.

5. Tracer or Carrier

Tracers and carriers are used in radiological separation methods to provide evaluation of chemical separation. Chemical yield is evaluated through the recovery of chemical species spiked into samples. Yield is evaluated radiometrically with a tracer and gravimetrically with a carrier. A control limit of 30% to 110% is applied to each sample spiked with either a carrier and/or a tracer.

The tracer and carrier analyses exhibited recoveries within the control limits.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 60% to 135%. In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of +/- 3 sigma.

The numerical performance indicator for a laboratory control sample is calculated by:

$$Z_{\text{LCS}} = \frac{x - c}{\sqrt{u^2(x) + u^2(c)}}$$

Where:

x = Analytical result of the LCS

c = Known concentration of the LCS

 $u^2(x)$ = combined standard uncertainty of the result squared.

 $u^2(c)$ = combined standard uncertainty of the LCS value squared.

LCS performance is acceptable when the numerical performance indicator calculation yields a value between ±3 sigma. Warning limits have been established as ±2 sigma.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Isotope Identification

For sample results to be considered "non-detect", evaluate data based on the following two criteria. <u>If either one of these criteria is true, the sample result is considered "non-detect".</u>

- 1. Sample result is less than the uncertainty and less than the MDC/MDA; or
- 2. Sample has an uncertainty greater than the result (or indistinguishable from background) or result falls between its uncertainty and its MDC/MDA.

Based on the above criteria sample results should be considered non-detect as follows:

- YGWC-46A Radium-228
- YGWC-45 Radium-228 and total Radium
- YGWC-52, AP-1 EB-1, AP-1 FB-1, YGWC-44 Radium-226, Radium-228, and total Radium

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Radiologicals

Radiologicals: SW-846 9315/9320	Rep	orted		rmance eptable	Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding Times		Х		Х	
Activity, +/- uncertainty, MDC/MDA		Х		Х	
Blanks	I		ı		
A. Method Blanks		Х		Х	
B. Equipment/Field Blanks		Х		Х	
Carrier (Surrogate) %R		Х		Х	
Tracer (Surrogate) %R		Х		Х	
Laboratory Control Sample (LCS) %R		Х		X	
Laboratory Control Sample Duplicate (LCSD) %R		Х		Х	
LCS/LCSD Precision (RPD)		Х		X	
Matrix Spike (MS) %R	Х				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	Х				X
Laboratory Duplicate (RPD)	X				X
Field Duplicate (RPD)		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

VALIDATION PERFORMED BY: Jennifer Singer

SIGNATURE:

DATE: November 8, 2022

Sknrifu Oslinger

PEER REVIEW: Dennis Capria

DATE: November 9, 2022

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App III A	Aetals: Boron 60208, Ca 60	OP CO	/	"	1		11	.77	AZK	5%	7.	1		12	7.4	Lès	11	7:		P					2	Agn.	升	-	 	+
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THE PLANS	n (Be), Cadmium (Cd), Chin (Li), Molybdamum (Mo), Sei Marcury (Hg)	orlum (Cr), Cobert Smum (Se)	(Co), Lead (P	0).	141	_fø	rie /	7 700	Ca .	7'/	n	IV.	53	F	-	1	_	1/4	4	Z		-	H	///	22	055	+		-	+
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SDG	Sample ID	Method	Analyte	Result	Units	Validation Qualifier	Reason for Validation Qualifier
92623537					No d	qualifiers assigned	
92623538					No c	qualifiers assigned	





September 26, 2022

Ms. Lauren Petty Southern Company 42 Inverness Center Parkway Birmingham, AL 35242

RE: Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2022. 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

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

Sincerely,

Nicole D'oles

Nicole D'Oleo nicole.d'oleo@pacelabs.com (704)875-9092 Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Lauren Coker, Georgia Pwer
Noelia Gangi, Georgia Power
Geoffrey Gay, ARCADIS - Atlanta
Ben Hodges, Georgia Power
Kristen Jurinko
Laura Midkiff, Georgia Power
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Michael Smilley, Georgia Power
Becky Steever, Arcadis
Tina Sullivan, ERM
Albert Zumbuhl, Arcadis



(770)734-4200



CERTIFICATIONS

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

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 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

Missouri Certification #: 235

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 #: 460198 Washington Certification #: C868 West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L



SAMPLE SUMMARY

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92623537001	YGWC-52	Water	08/31/22 11:20	09/01/22 09:05
92623537002	YGWC-46A	Water	08/31/22 14:50	09/01/22 09:05
92623537003	AP-DUP-1	Water	08/31/22 00:00	09/01/22 09:05
92623537004	AP-1 EB-1	Water	08/31/22 11:40	09/01/22 09:05
92623537005	AP-1 FB-1	Water	08/31/22 11:35	09/01/22 09:05
92623537006	YGWC-44	Water	08/31/22 11:25	09/01/22 09:05
92623537007	YGWC-45	Water	08/31/22 15:50	09/01/22 09:05



SAMPLE ANALYTE COUNT

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92623537001	YGWC-52	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623537002	YGWC-46A	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623537003	AP-DUP-1	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623537004	AP-1 EB-1	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623537005	AP-1 FB-1	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623537006	YGWC-44	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623537007	YGWC-45	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



SUMMARY OF DETECTION

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92623537001	YGWC-52					
EPA 9315	Radium-226	0.0374 ± 0.0816 (0.192) C:92% T:NA	pCi/L		09/26/22 08:41	
EPA 9320	Radium-228	0.285 ± 0.431 (0.930) C:72% T:90%	pCi/L		09/21/22 18:23	
Total Radium Calculation	Total Radium	0.322 ± 0.513 (1.12)	pCi/L		09/26/22 14:14	
92623537002	YGWC-46A					
EPA 9315	Radium-226	0.727 ± 0.230 (0.193) C:83% T:NA	pCi/L		09/26/22 08:41	
EPA 9320	Radium-228	0.787 ± 0.494 (0.899) C:71% T:83%	pCi/L		09/21/22 18:23	
Total Radium Calculation	Total Radium	1.51 ± 0.724 (1.09)	pCi/L		09/26/22 14:14	
92623537003	AP-DUP-1					
EPA 9315	Radium-226	0.512 ± 0.201 (0.232) C:77% T:NA	pCi/L		09/26/22 08:41	
EPA 9320	Radium-228	0.968 ± 0.522 (0.905) C:69% T:86%	pCi/L		09/21/22 18:23	
Total Radium Calculation	Total Radium	1.48 ± 0.723 (1.14)	pCi/L		09/26/22 14:14	
92623537004	AP-1 EB-1					
EPA 9315	Radium-226	0.148 ± 0.103 (0.161)	pCi/L		09/26/22 08:09	
EPA 9320	Radium-228	C:93% T:NA 0.244 ± 0.415 (0.905) C:76% T:87%	pCi/L		09/21/22 18:23	
Total Radium Calculation	Total Radium	0.392 ± 0.518 (1.07)	pCi/L		09/26/22 14:14	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Lab Sample ID	Client Sample ID			
Method	Parameters	Result	Units	Report Limit Analyzed Qualifiers
92623537005	AP-1 FB-1			
EPA 9315	Radium-226	0.0432 ± 0.0766 (0.173) C:97% T:NA	pCi/L	09/26/22 08:10
EPA 9320	Radium-228	0.513 ± 0.547 (1.14) C:66%	pCi/L	09/21/22 18:24
Total Radium Calculation	Total Radium	T:87% 0.556 ± 0.624 (1.31)	pCi/L	09/26/22 14:14
92623537006	YGWC-44			
EPA 9315	Radium-226	0.00597 ± 0.0750 (0.203) C:84% T:NA	pCi/L	09/26/22 08:10
EPA 9320	Radium-228	0.139 ± 0.412 (0.927) C:71% T:92%	pCi/L	09/21/22 18:24
Total Radium Calculation	Total Radium	0.145 ± 0.487 (1.13)	pCi/L	09/26/22 14:14
92623537007	YGWC-45			
EPA 9315	Radium-226	0.448 ± 0.188 (0.226) C:84% T:NA	pCi/L	09/26/22 08:10
EPA 9320	Radium-228	0.150 ± 0.395 (0.885) C:75%	pCi/L	09/21/22 18:24
Total Radium Calculation	Total Radium	T:89% 0.598 ± 0.583 (1.11)	pCi/L	09/26/22 14:14



Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Sample: YGWC-52 PWS:	Lab ID: 9262 Site ID:	23537001 Collected: 08/31/22 11:20 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.0374 ± 0.0816 (0.192) C:92% T:NA	pCi/L	09/26/22 08:4	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.285 ± 0.431 (0.930) C:72% T:90%	pCi/L	09/21/22 18:23	3 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.322 ± 0.513 (1.12)	pCi/L	09/26/22 14:14	7440-14-4	



Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Sample: YGWC-46A PWS:	Lab ID: 9262 Site ID:	3537002 Collected: 08/31/22 14:50 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.727 ± 0.230 (0.193) C:83% T:NA	pCi/L	09/26/22 08:4	1 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.787 ± 0.494 (0.899) C:71% T:83%	pCi/L	09/21/22 18:23	3 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	1.51 ± 0.724 (1.09)	pCi/L	09/26/22 14:14	4 7440-14-4	



Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Sample: AP-DUP-1 PWS:	Lab ID: 926235 3 Site ID:	37003 Collected: 08/31/22 00:00 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Se	rvices - Greensburg				
Radium-226	EPA 9315	0.512 ± 0.201 (0.232) C:77% T:NA	pCi/L	09/26/22 08:4	1 13982-63-3	
	Pace Analytical Se	rvices - Greensburg				
Radium-228	EPA 9320	0.968 ± 0.522 (0.905) C:69% T:86%	pCi/L	09/21/22 18:23	3 15262-20-1	
	Pace Analytical Se	rvices - Greensburg				
Total Radium	Total Radium Calculation	1.48 ± 0.723 (1.14)	pCi/L	09/26/22 14:14	4 7440-14-4	



Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Sample: AP-1 EB-1 PWS:	Lab ID: 9262 Site ID:	3537004 Collected: 08/31/22 11:40 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.148 ± 0.103 (0.161) C:93% T:NA	pCi/L	09/26/22 08:09	9 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.244 ± 0.415 (0.905) C:76% T:87%	pCi/L	09/21/22 18:23	3 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.392 ± 0.518 (1.07)	pCi/L	09/26/22 14:14	4 7440-14-4	



Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Sample: AP-1 FB-1 PWS:	Lab ID: 9262 Site ID:	3537005 Collected: 08/31/22 11:35 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.0432 ± 0.0766 (0.173) C:97% T:NA	pCi/L	09/26/22 08:10	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.513 ± 0.547 (1.14) C:66% T:87%	pCi/L	09/21/22 18:24	4 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.556 ± 0.624 (1.31)	pCi/L	09/26/22 14:14	4 7440-14-4	



Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Sample: YGWC-44 PWS:	Lab ID: 9262353 Site ID:	7006 Collected: 08/31/22 11:25 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	vices - Greensburg			_	
Radium-226	EPA 9315	0.00597 ± 0.0750 (0.203) C:84% T:NA	pCi/L	09/26/22 08:10	13982-63-3	
	Pace Analytical Ser	vices - Greensburg				
Radium-228	EPA 9320	0.139 ± 0.412 (0.927) C:71% T:92%	pCi/L	09/21/22 18:24	15262-20-1	
	Pace Analytical Ser	vices - Greensburg				
Total Radium	Total Radium Calculation	0.145 ± 0.487 (1.13)	pCi/L	09/26/22 14:14	7440-14-4	



Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Sample: YGWC-45 PWS:	Lab ID: 92623537007 Collected: 08/31/22 15:50 Site ID: Sample Type:		Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.448 ± 0.188 (0.226) C:84% T:NA	pCi/L	09/26/22 08:10	0 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.150 ± 0.395 (0.885) C:75% T:89%	pCi/L	09/21/22 18:24	4 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.598 ± 0.583 (1.11)	pCi/L	09/26/22 14:14	4 7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

QC Batch: 530875 Analysis Method: EPA 9320

QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92623537001, 92623537002, 92623537003, 92623537004, 92623537005, 92623537006, 92623537007

METHOD BLANK: 2574654 Matrix: Water

Associated Lab Samples: 92623537001, 92623537002, 92623537003, 92623537004, 92623537005, 92623537006, 92623537007

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.601 ± 0.386 (0.738) C:78% T:91%
 pCi/L
 09/21/22 12:20

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

QC Batch: 530876 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92623537001, 92623537002, 92623537003, 92623537004, 92623537005, 92623537006, 92623537007

METHOD BLANK: 2574656 Matrix: Water

Associated Lab Samples: 92623537001, 92623537002, 92623537003, 92623537004, 92623537005, 92623537006, 92623537007

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.0122 ± 0.0618 (0.163) C:93% T:NA
 pCi/L
 09/26/22 09:16

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.



QUALIFIERS

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Date: 09/26/2022 02:20 PM

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates AP-1 Rads

Pace Project No.: 92623537

Date: 09/26/2022 02:20 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92623537001	YGWC-52	EPA 9315	530876		
92623537002	YGWC-46A	EPA 9315	530876		
92623537003	AP-DUP-1	EPA 9315	530876		
92623537004	AP-1 EB-1	EPA 9315	530876		
92623537005	AP-1 FB-1	EPA 9315	530876		
92623537006	YGWC-44	EPA 9315	530876		
92623537007	YGWC-45	EPA 9315	530876		
92623537001	YGWC-52	EPA 9320	530875		
92623537002	YGWC-46A	EPA 9320	530875		
92623537003	AP-DUP-1	EPA 9320	530875		
92623537004	AP-1 EB-1	EPA 9320	530875		
92623537005	AP-1 FB-1	EPA 9320	530875		
92623537006	YGWC-44	EPA 9320	530875		
92623537007	YGWC-45	EPA 9320	530875		
92623537001	YGWC-52	Total Radium Calculation	535440		
92623537002	YGWC-46A	Total Radium Calculation	535440		
92623537003	AP-DUP-1	Total Radium Calculation	535440		
92623537004	AP-1 EB-1	Total Radium Calculation	535440		
92623537005	AP-1 FB-1	Total Radium Calculation	535440		
92623537006	YGWC-44	Total Radium Calculation	535440		
92623537007	YGWC-45	Total Radium Calculation	535440		



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

	ory receiving samples:					
Ashevi		Huntersvil	le 🔙	Raleigh[Mechanicsville Atlanta Kernersville
	le Condition Client Name:			Pr	rojec	WO#: 92623537
Courier:	Fed Ex DUPS	DUSPS		Clien	ot	
Com	mercial Dace	Other				02623537
Custody	Seal Present? Yes Pro Se	als Intact?	Yes	□No		32023337
		//				Date/Initials Person Examining Contents: 4///12
Packing I	Material: Bubble Wrap	Bubble Bags	None	Oth		104
Thermor		Bobo			E	Biological Tissue Frozen? Yes No N/A
	TIR Gun ID: 230	Type of Ice	: 🗅	Wet □Blue	ie	None
Cooler To	emp: 2.5 Correction Fac					_
		(0.0		•		Temp should be above freezing to 6°C Samples out of temp criteria. Samples on ice, cooling process
	emp Corrected (°C): gulated Soil (N/A, water sample)	d-1)				has begun
Did sa	amples originate in a quarantine zone within t	he United States:	CA, NY,	or SC		Did samples originate from a foreign source (internationally,
(chec	k maps)? Yes No					including Hawaii and Puerto Rico)? Yes No
Cha	in of Custody Present?					Comments/Discrepancy:
	pples Arrived within Hold Time?	₫?es	□No	□N/A	1.	
	rt Hold Time Analysis (<72 hr.)?	Pres	□No	□N/A	2.	
1	h Turn Around Time Requested?	□Yes	<u> </u>	□N/A	3.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		Yes	No	□N/A	4,	
Suff	ficient Volume?	Tes	□No	□N/A	5.	
3	rect Containers Used? Pace Containers Used?	Yes	□No	□N/A	6.	
	tainers Intact?	Yes		□N/A		
	olved analysis: Samples Field Filtered?		□N∘ =	□N/A	7.	
1	pple Labels Match COC?	Yes_	No		8.	
		€ ies	□No	□N/A	9.	
-1	Includes Date/Time/ID/Analysis Matrix:	W		ļ		
Hea	dspace in VOA Vials (>5-6mm)?	□Yes			•	5
	Blank Present?	Yes	□No □No	ON/A	10.	
Trip	Blank Custody Seals Present?	□Yes		-/		
	S/SAMPLE DISCREPANCY			ØN/A]		Field Data Required? Yes No
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CLIENT NOT	IFICATION/RESOLUTION			LO)t IU	of split containers
					_	pH Strip Lot# 10D4611
					-	
Person co	ntacted:			Date/Time:		
<u> </u>						
Projec	t Manager SCURF Review:					Date:
Projec	t Manager SRF Review:					
			-			Date:



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

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

Exceptions: VOA, Coliform, TQC, Oil and Grease, DRO/8015 (water) DOC, LLHg

- **Bottom half of box is to list number of bottles
- ***Check all unpreserved Nitrates for chlorine

Project # WO#: 92623537

PM: NMG

Due Date: 09/23/22

CLIENT: GA-GA Power

	(CI-)						(6<) H	-	pevve	(a-)		(CI-)														(CI-)		N/A)
Item#	BP4U-125 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)	BP45-125 mL Plastic H2SO4 (pH < 2) (Cl	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A)(CI-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CI-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2504 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A){CI-}	DG9H-40 mL VOA HC! (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG95-40 mL VOA H2504 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	15P/W	BP3R-250 mL Plastic (NH2)25O4 (9.3-9.	AG0U-100 mL Amber Unpreserved (N/A) (CI-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
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		pH Ac	ljustment Log for Pres	erved Samples	,	
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #
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No.						
	 					

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

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September 20, 2022

Ms. Lauren Petty Southern Company 42 Inverness Center Parkway Birmingham, AL 35242

RE: Project: Plant Yates AP-1

Pace Project No.: 92623538

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2022. 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 Charlotte
- Pace Analytical Services Peachtree Corners, GA

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

Sincerely,

Micole D'oles

Nicole D'Oleo nicole.d'oleo@pacelabs.com (704)875-9092 Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Lauren Coker, Georgia Pwer
Noelia Gangi, Georgia Power
Geoffrey Gay, ARCADIS - Atlanta
Ben Hodges, Georgia Power
Kristen Jurinko
Laura Midkiff, Georgia Power
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Michael Smilley, Georgia Power
Becky Steever, Arcadis

Albert Zumbuhl, Arcadis





CERTIFICATIONS

Project: Plant Yates AP-1 Pace Project No.: 92623538

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006 South Carolina Certification #: 99006001

9800 Kincey Ave. Ste 100, Huntersville, NC 28078 South Carolina Drinking Water Cert. #: 99006003

North Carolina Drinking Water Certification #: 37706 Florida/NELAP Certification #: E87627 North Carolina Field Services Certification #: 5342 Kentucky UST Certification #: 84 North Carolina Wastewater Certification #: 12 Louisiana DoH Drinking Water #: LA029 South Carolina Laboratory ID: 99006 Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804 South Carolina Laboratory ID: 99030 Florida/NELAP Certification #: E87648 South Carolina Certification #: 99030001

North Carolina Drinking Water Certification #: 37712 Virginia/VELAP Certification #: 460222

North Carolina Wastewater Certification #: 40

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092 Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

North Carolina Certification #: 381 South Carolina Certification #: 98011001



SAMPLE SUMMARY

Project: Plant Yates AP-1

Pace Project No.: 92623538

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92623538001	YGWC-52	Water	08/31/22 11:20	09/01/22 09:05
92623538002	YGWC-46A	Water	08/31/22 14:50	09/01/22 09:05
92623538003	AP-1-DUP-1	Water	08/31/22 00:00	09/01/22 09:05
92623538004	AP-1 EB-1	Water	08/31/22 11:40	09/01/22 09:05
92623538005	AP-1 FB-1	Water	08/31/22 11:35	09/01/22 09:05
92623538006	YGWC-44	Water	08/31/22 11:25	09/01/22 09:05
92623538007	YGWC-45	Water	08/31/22 15:50	09/01/22 09:05



SAMPLE ANALYTE COUNT

Project: Plant Yates AP-1
Pace Project No.: 92623538

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92623538001	YGWC-52	EPA 6010D	— — KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623538002	YGWC-46A	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623538003	AP-1-DUP-1	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623538004	AP-1 EB-1	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623538005	AP-1 FB-1	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623538006	YGWC-44	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623538007	YGWC-45	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville PASI-C = Pace Analytical Services - Charlotte





SAMPLE ANALYTE COUNT

Project: Plant Yates AP-1

Pace Project No.: 92623538

Lab ID Sample ID Method Analysts Reported

PASI-GA = Pace Analytical Services - Peachtree Corners, GA



SUMMARY OF DETECTION

Project: Plant Yates AP-1
Pace Project No.: 92623538

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2623538001	YGWC-52					
	Performed by	Customer			09/02/22 09:56	
	рН	5.58	Std. Units		09/02/22 09:56	
PA 6010D	Calcium	41.8	mg/L	1.0	09/15/22 22:31	
PA 6020B	Barium	0.017	mg/L	0.0050	09/17/22 20:45	
PA 6020B	Cobalt	0.00096J	mg/L	0.0050	09/17/22 20:45	
PA 6020B	Lithium	0.0037J	mg/L	0.030	09/17/22 20:45	
M 2540C-2015	Total Dissolved Solids	266	mg/L	25.0	09/05/22 13:01	
PA 300.0 Rev 2.1 1993	Chloride	3.4	mg/L	1.0	09/09/22 00:32	
PA 300.0 Rev 2.1 1993	Fluoride	0.059J	mg/L	0.10	09/09/22 00:32	
PA 300.0 Rev 2.1 1993	Sulfate	122	mg/L	3.0	09/09/22 07:06	
623538002	YGWC-46A					
	Performed by	Customer			09/02/22 09:56	
	рН	6.87	Std. Units		09/02/22 09:56	
PA 6010D	Calcium	110	mg/L	1.0	09/15/22 22:36	
PA 6020B	Barium	0.036	mg/L	0.0050	09/17/22 20:51	
PA 6020B	Boron	2.1	mg/L	0.040	09/17/22 20:51	
PA 6020B	Cobalt	0.0017J	mg/L	0.0050	09/17/22 20:51	
PA 6020B	Lithium	0.015J	mg/L	0.030	09/17/22 20:51	
PA 6020B	Molybdenum	0.0017J	mg/L	0.010	09/17/22 20:51	
M 2540C-2015	Total Dissolved Solids	948	mg/L	50.0	09/05/22 13:01	
PA 300.0 Rev 2.1 1993	Chloride	29.9	mg/L	1.0	09/09/22 00:46	
PA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/09/22 00:46	
PA 300.0 Rev 2.1 1993	Sulfate	459	mg/L	9.0	09/09/22 07:47	
2623538003	AP-1-DUP-1					
PA 6010D	Calcium	105	mg/L	1.0	09/15/22 17:59	M1
PA 6020B	Barium	0.037	mg/L	0.0050	09/17/22 20:57	
PA 6020B	Boron	2.1	mg/L	0.040	09/17/22 20:57	
PA 6020B	Cobalt	0.0019J	mg/L	0.0050	09/17/22 20:57	
PA 6020B	Lithium	0.015J	mg/L	0.030	09/17/22 20:57	
PA 6020B	Molybdenum	0.0018J	mg/L	0.010	09/17/22 20:57	
M 2540C-2015	Total Dissolved Solids	882	mg/L	50.0	09/05/22 13:01	
PA 300.0 Rev 2.1 1993	Chloride	30.0	mg/L	1.0	09/09/22 01:00	
PA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/09/22 01:00	
PA 300.0 Rev 2.1 1993	Sulfate	454	mg/L	9.0	09/09/22 08:01	
2623538004	AP-1 EB-1					
PA 6020B	Boron	0.021J	mg/L	0.040	09/17/22 21:03	
2623538006	YGWC-44					
	Performed by	Customer			09/02/22 09:52	
	рH	5.77	Std. Units		09/02/22 09:52	
PA 6010D	Calcium	30.8	mg/L	1.0	09/15/22 18:43	
PA 6020B	Barium	0.073	mg/L	0.0050	09/17/22 21:21	
PA 6020B	Boron	0.54	mg/L	0.040	09/17/22 21:21	
PA 6020B	Cobalt	0.00099J	mg/L	0.0050	09/17/22 21:21	
PA 6020B	Lithium	0.013J	mg/L	0.030	09/17/22 21:21	
M 2540C-2015	Total Dissolved Solids	343	mg/L	25.0	09/05/22 13:05	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: Plant Yates AP-1
Pace Project No.: 92623538

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92623538006	YGWC-44			-		
EPA 300.0 Rev 2.1 1993	Chloride	14.5	mg/L	1.0	09/09/22 02:51	
EPA 300.0 Rev 2.1 1993	Fluoride	0.055J	mg/L	0.10	09/09/22 02:51	
EPA 300.0 Rev 2.1 1993	Sulfate	130	mg/L	3.0	09/09/22 08:57	
92623538007	YGWC-45					
	Performed by	Customer			09/02/22 09:52	
	pH	6.56	Std. Units		09/02/22 09:52	
EPA 6010D	Calcium	51.8	mg/L	1.0	09/15/22 18:47	
EPA 6020B	Barium	0.052	mg/L	0.0050	09/17/22 21:39	
EPA 6020B	Boron	0.33	mg/L	0.040	09/17/22 21:39	
EPA 6020B	Cobalt	0.00069J	mg/L	0.0050	09/17/22 21:39	
EPA 6020B	Lithium	0.012J	mg/L	0.030	09/17/22 21:39	
EPA 6020B	Molybdenum	0.0011J	mg/L	0.010	09/17/22 21:39	
SM 2540C-2015	Total Dissolved Solids	445	mg/L	25.0	09/05/22 13:05	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	09/09/22 03:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/09/22 03:05	
EPA 300.0 Rev 2.1 1993	Sulfate	177	mg/L	4.0	09/09/22 09:11	



ANALYTICAL RESULTS

Project: Plant Yates AP-1
Pace Project No.: 92623538

Sample: YGWC-52	Lab ID:	92623538001	Collecte	ed: 08/31/2	2 11:20	Received: 09/	/01/22 09:05 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte	;					
Performed by	Customer				1		09/02/22 09:56		
рН	5.58	Std. Units			1		09/02/22 09:56		
6010D ATL ICP	Analytical	Method: EPA 6	6010D Pre	paration Me	thod: El	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, 0	GΑ				
Calcium	41.8	mg/L	1.0	0.12	1	09/15/22 15:08	09/15/22 22:31	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	6020B Pre	paration Met	thod: Ef	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, 0	GΑ				
Antimony	ND	mg/L	0.0030	0.00078	1	09/16/22 11:43	09/17/22 20:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/16/22 11:43	09/17/22 20:45	7440-38-2	
Barium	0.017	mg/L	0.0050	0.00067	1	09/16/22 11:43	09/17/22 20:45	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/16/22 11:43	09/17/22 20:45	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/16/22 11:43	09/17/22 20:45	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/16/22 11:43	09/17/22 20:45	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/16/22 11:43	09/17/22 20:45	7440-47-3	
Cobalt	0.00096J	mg/L	0.0050	0.00039	1	09/16/22 11:43	09/17/22 20:45	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/16/22 11:43	09/17/22 20:45	7439-92-1	
Lithium	0.0037J	mg/L	0.030	0.00073	1	09/16/22 11:43	09/17/22 20:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/16/22 11:43	09/17/22 20:45	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/16/22 11:43	09/17/22 20:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/16/22 11:43	09/17/22 20:45	7440-28-0	
7470 Mercury	Analytical	Method: EPA	7470A Pre	paration Met	thod: EF	PA 7470A			
-	Pace Ana	lytical Services	- Peachtre	e Corners, 0	GΑ				
Mercury	ND	mg/L	0.00020	0.00013	1	09/16/22 08:15	09/16/22 13:00	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015						
	Pace Ana	lytical Services	- Peachtre	e Corners, 0	ЗA				
Total Dissolved Solids	266	mg/L	25.0	10.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	Analytical	Method: EPA	300.0 Rev 2	2.1 1993					
	Pace Ana	lytical Services	- Asheville						
Chloride	3.4	mg/L	1.0	0.60	1		09/09/22 00:32	16887-00-6	
Fluoride	0.059J	mg/L	0.10	0.050	1		09/09/22 00:32		
Sulfate	122	mg/L	3.0	1.5	3		09/09/22 07:06		



ANALYTICAL RESULTS

Project: Plant Yates AP-1
Pace Project No.: 92623538

Sample: YGWC-46A	Lab ID:	92623538002	Collecte	d: 08/31/22	2 14:50	Received: 09/	/01/22 09:05 M	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF_	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte						
Performed by	Customer				1		09/02/22 09:56		
pH	6.87	Std. Units			1		09/02/22 09:56		
6010D ATL ICP	Analytical	Method: EPA 6	010D Prep	aration Met	thod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	ЭΑ				
Calcium	110	mg/L	1.0	0.12	1	09/15/22 15:08	09/15/22 22:36	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Prep	aration Met	thod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	ЭΑ				
Antimony	ND	mg/L	0.0030	0.00078	1	09/16/22 11:43	09/17/22 20:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/16/22 11:43	09/17/22 20:51	7440-38-2	
Barium	0.036	mg/L	0.0050	0.00067	1	09/16/22 11:43	09/17/22 20:51	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/16/22 11:43	09/17/22 20:51	7440-41-7	
Boron	2.1	mg/L	0.040	0.0086	1	09/16/22 11:43	09/17/22 20:51	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/16/22 11:43	09/17/22 20:51	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/16/22 11:43	09/17/22 20:51	7440-47-3	
Cobalt	0.0017J	mg/L	0.0050	0.00039	1	09/16/22 11:43	09/17/22 20:51	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/16/22 11:43	09/17/22 20:51	7439-92-1	
Lithium	0.015J	mg/L	0.030	0.00073	1	09/16/22 11:43	09/17/22 20:51	7439-93-2	
Molybdenum	0.0017J	mg/L	0.010	0.00074	1	09/16/22 11:43	09/17/22 20:51	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/16/22 11:43	09/17/22 20:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/16/22 11:43	09/17/22 20:51	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Prep	aration Met	hod: EF	PA 7470A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	ЭΑ				
Mercury	ND	mg/L	0.00020	0.00013	1	09/16/22 08:15	09/16/22 13:03	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015						
	Pace Ana	lytical Services	- Peachtree	Corners, C	GΑ				
Total Dissolved Solids	948	mg/L	50.0	20.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	300.0 Rev 2	.1 1993					
	Pace Ana	lytical Services	- Asheville						
Chloride	29.9	mg/L	1.0	0.60	1		09/09/22 00:46	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.050	1		09/09/22 00:46	16984-48-8	
Sulfate	459	mg/L	9.0	4.5	9		09/09/22 07:47	14808-79-8	



ANALYTICAL RESULTS

Project: Plant Yates AP-1
Pace Project No.: 92623538

Sample: AP-1-DUP-1	Lab ID:	92623538003	Collecte	ed: 08/31/2	2 00:00	Received: 09/	01/22 09:05 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
6010D ATL ICP	•	Method: EPA 6				PA 3010A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	3A				
Calcium	105	mg/L	1.0	0.12	1	09/15/22 14:54	09/15/22 17:59	7440-70-2	M1
6020 MET ICPMS	Analytical	Method: EPA 6	020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	3A				
Antimony	ND	mg/L	0.0030	0.00078	1	09/16/22 11:43	09/17/22 20:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/16/22 11:43	09/17/22 20:57	7440-38-2	
Barium	0.037	mg/L	0.0050	0.00067	1	09/16/22 11:43	09/17/22 20:57	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/16/22 11:43	09/17/22 20:57	7440-41-7	
Boron	2.1	mg/L	0.040	0.0086	1	09/16/22 11:43	09/17/22 20:57	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/16/22 11:43	09/17/22 20:57	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/16/22 11:43	09/17/22 20:57	7440-47-3	
Cobalt	0.0019J	mg/L	0.0050	0.00039	1	09/16/22 11:43	09/17/22 20:57	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/16/22 11:43	09/17/22 20:57	7439-92-1	
Lithium	0.015J	mg/L	0.030	0.00073	1	09/16/22 11:43	09/17/22 20:57	7439-93-2	
Molybdenum	0.0018J	mg/L	0.010	0.00074	1	09/16/22 11:43	09/17/22 20:57	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/16/22 11:43	09/17/22 20:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/16/22 11:43	09/17/22 20:57	7440-28-0	
7470 Mercury	Analytical I	Method: EPA 7	470A Prej	paration Met	hod: EP	A 7470A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	3A				
Mercury	ND	mg/L	0.00020	0.00013	1	09/16/22 08:15	09/16/22 13:06	7439-97-6	
2540C Total Dissolved Solids	Analytical I	Method: SM 25	540C-2015						
	Pace Analy	tical Services	- Peachtre	e Corners, (βA				
Total Dissolved Solids	882	mg/L	50.0	20.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	Analytical I	Method: EPA 3	300.0 Rev 2	2.1 1993					
	Pace Analy	tical Services	- Asheville						
Chloride	30.0	mg/L	1.0	0.60	1		09/09/22 01:00	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.050	1		09/09/22 01:00	16984-48-8	
Sulfate	454	mg/L	9.0	4.5	9		09/09/22 08:01	14808-79-8	



ANALYTICAL RESULTS

Project: Plant Yates AP-1
Pace Project No.: 92623538

Sample: AP-1 EB-1	Lab ID: 9	92623538004	Collecte	ed: 08/31/22	2 11:40	Received: 09/	01/22 09:05 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
6010D ATL ICP	Analytical N		010D Pre	paration Met	thod: EF	PA 3010A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	ЭΑ				
Calcium	ND	mg/L	1.0	0.12	1	09/15/22 14:54	09/15/22 18:19	7440-70-2	
6020 MET ICPMS	Analytical N	Method: EPA 6	020B Pre	paration Met	thod: EF	PA 3005A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	ЭΑ				
Antimony	ND	mg/L	0.0030	0.00078	1	09/16/22 11:43	09/17/22 21:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/16/22 11:43	09/17/22 21:03		
Barium	ND	mg/L	0.0050	0.00067	1	09/16/22 11:43	09/17/22 21:03		
Beryllium	ND	mg/L	0.00050	0.000054	1	09/16/22 11:43	09/17/22 21:03	7440-41-7	
Boron	0.021J	mg/L	0.040	0.0086	1	09/16/22 11:43	09/17/22 21:03	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/16/22 11:43	09/17/22 21:03	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/16/22 11:43	09/17/22 21:03	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/16/22 11:43	09/17/22 21:03	7440-48-4	
₋ead	ND	mg/L	0.0010	0.00089	1	09/16/22 11:43	09/17/22 21:03	7439-92-1	
₋ithium	ND	mg/L	0.030	0.00073	1	09/16/22 11:43	09/17/22 21:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/16/22 11:43	09/17/22 21:03	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/16/22 11:43	09/17/22 21:03	7782-49-2	
Γhallium	ND	mg/L	0.0010	0.00018	1	09/16/22 11:43	09/17/22 21:03	7440-28-0	
7470 Mercury	Analytical N	Лethod: EPA 7	'470A Pre	paration Met	hod: EF	PA 7470A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	ЭΑ				
Mercury	ND	mg/L	0.00020	0.00013	1	09/16/22 08:15	09/16/22 13:08	7439-97-6	
2540C Total Dissolved Solids	Analytical N	леthod: SM 25	540C-2015						
	Pace Analy	tical Services	- Peachtre	e Corners, C	3A				
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	•	Method: EPA 3							
Chloride	ND	mg/L	1.0	0.60	1		09/09/22 01:14	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/09/22 01:14	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/09/22 01:14	14808-79-8	



ANALYTICAL RESULTS

Project: Plant Yates AP-1
Pace Project No.: 92623538

Sample: AP-1 FB-1	Lab ID:	92623538005	Collecte	ed: 08/31/22	2 11:35	Received: 09/	01/22 09:05 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
6010D ATL ICP	Analytical I	Method: EPA 6	010D Pre	paration Met	thod: El	PA 3010A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	GΑ				
Calcium	ND	mg/L	1.0	0.12	1	09/15/22 14:54	09/15/22 18:24	7440-70-2	
6020 MET ICPMS	Analytical I	Method: EPA 6	020B Pre	paration Met	thod: El	PA 3005A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	GΑ				
Antimony	ND	mg/L	0.0030	0.00078	1	09/16/22 11:43	09/17/22 21:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/16/22 11:43	09/17/22 21:09	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	09/16/22 11:43	09/17/22 21:09	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/16/22 11:43	09/17/22 21:09	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/16/22 11:43	09/17/22 21:09	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/16/22 11:43	09/17/22 21:09	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/16/22 11:43	09/17/22 21:09	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/16/22 11:43	09/17/22 21:09	7440-48-4	
₋ead	ND	mg/L	0.0010	0.00089	1	09/16/22 11:43	09/17/22 21:09	7439-92-1	
₋ithium	ND	mg/L	0.030	0.00073	1	09/16/22 11:43	09/17/22 21:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/16/22 11:43	09/17/22 21:09	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/16/22 11:43	09/17/22 21:09	7782-49-2	
Γhallium	ND	mg/L	0.0010	0.00018	1	09/16/22 11:43	09/17/22 21:09	7440-28-0	
7470 Mercury	Analytical I	Method: EPA 7	470A Pre	paration Met	thod: EF	PA 7470A			
	Pace Analy	tical Services	- Peachtre	e Corners, C	GΑ				
Mercury	ND	mg/L	0.00020	0.00013	1	09/16/22 08:15	09/16/22 13:11	7439-97-6	
2540C Total Dissolved Solids	Analytical I	Method: SM 2	540C-2015						
	Pace Analy	tical Services	- Peachtre	e Corners, C	ЭA				
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	-	Method: EPA 3 ytical Services							
Chloride	ND	mg/L	1.0	0.60	1		09/09/22 01:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/09/22 01:28	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/09/22 01:28	14808-79-8	



ANALYTICAL RESULTS

Project: Plant Yates AP-1
Pace Project No.: 92623538

Sample: YGWC-44	Lab ID:	92623538006	Collecte	d: 08/31/22	2 11:25	Received: 09/	/01/22 09:05 M	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte						
Performed by	Customer				1		09/02/22 09:52		
рН	5.77	Std. Units			1		09/02/22 09:52		
6010D ATL ICP	Analytical	Method: EPA 6	010D Prep	aration Met	thod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	βA				
Calcium	30.8	mg/L	1.0	0.12	1	09/15/22 14:54	09/15/22 18:43	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Prep	aration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	βA				
Antimony	ND	mg/L	0.0030	0.00078	1	09/16/22 11:43	09/17/22 21:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/16/22 11:43	09/17/22 21:21	7440-38-2	
Barium	0.073	mg/L	0.0050	0.00067	1	09/16/22 11:43	09/17/22 21:21	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/16/22 11:43	09/17/22 21:21	7440-41-7	
Boron	0.54	mg/L	0.040	0.0086	1	09/16/22 11:43			
Cadmium	ND	mg/L	0.00050	0.00011	1	09/16/22 11:43	09/17/22 21:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/16/22 11:43	09/17/22 21:21	7440-47-3	
Cobalt	0.00099J	mg/L	0.0050	0.00039	1	09/16/22 11:43	09/17/22 21:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/16/22 11:43	09/17/22 21:21	7439-92-1	
Lithium	0.013J	mg/L	0.030	0.00073	1	09/16/22 11:43	09/17/22 21:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/16/22 11:43	09/17/22 21:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/16/22 11:43	09/17/22 21:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/16/22 11:43	09/17/22 21:21	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Prep	aration Met	hod: EF	PA 7470A			
-	Pace Ana	lytical Services	- Peachtree	Corners, C	3A				
Mercury	ND	mg/L	0.00020	0.00013	1	09/16/22 08:15	09/16/22 13:14	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
	Pace Ana	lytical Services	- Peachtree	Corners, C	βA				
Total Dissolved Solids	343	mg/L	25.0	10.0	1		09/05/22 13:05		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	300.0 Rev 2	.1 1993					
-	Pace Ana	lytical Services	- Asheville						
Chloride	14.5	mg/L	1.0	0.60	1		09/09/22 02:51	16887-00-6	
Fluoride	0.055J	mg/L	0.10	0.050	1		09/09/22 02:51	16984-48-8	
Sulfate	130	mg/L	3.0	1.5	3		09/09/22 08:57		



ANALYTICAL RESULTS

Project: Plant Yates AP-1
Pace Project No.: 92623538

Sample: YGWC-45	Lab ID:	92623538007	Collecte	d: 08/31/22	2 15:50	Received: 09/	/01/22 09:05 M	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte						
Performed by	Customer				1		09/02/22 09:52		
pH	6.56	Std. Units			1		09/02/22 09:52		
6010D ATL ICP	Analytical	Method: EPA 6	010D Prep	aration Met	thod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	ЭΑ				
Calcium	51.8	mg/L	1.0	0.12	1	09/15/22 14:54	09/15/22 18:47	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Prep	aration Met	thod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	ЭΑ				
Antimony	ND	mg/L	0.0030	0.00078	1	09/16/22 11:43	09/17/22 21:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/16/22 11:43	09/17/22 21:39	7440-38-2	
Barium	0.052	mg/L	0.0050	0.00067	1	09/16/22 11:43	09/17/22 21:39	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/16/22 11:43	09/17/22 21:39	7440-41-7	
Boron	0.33	mg/L	0.040	0.0086	1	09/16/22 11:43			
Cadmium	ND	mg/L	0.00050	0.00011	1	09/16/22 11:43	09/17/22 21:39	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/16/22 11:43	09/17/22 21:39	7440-47-3	
Cobalt	0.00069J	mg/L	0.0050	0.00039	1	09/16/22 11:43	09/17/22 21:39	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/16/22 11:43	09/17/22 21:39	7439-92-1	
Lithium	0.012J	mg/L	0.030	0.00073	1	09/16/22 11:43	09/17/22 21:39	7439-93-2	
Molybdenum	0.0011J	mg/L	0.010	0.00074	1	09/16/22 11:43	09/17/22 21:39	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/16/22 11:43	09/17/22 21:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/16/22 11:43	09/17/22 21:39	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Prep	aration Met	hod: EF	PA 7470A			
•	Pace Ana	lytical Services	- Peachtree	Corners, C	ЭΑ				
Mercury	ND	mg/L	0.00020	0.00013	1	09/16/22 08:15	09/16/22 13:16	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015						
	Pace Ana	lytical Services	- Peachtree	Corners, C	ЭΑ				
Total Dissolved Solids	445	mg/L	25.0	10.0	1		09/05/22 13:05		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	300.0 Rev 2	.1 1993					
•	Pace Ana	lytical Services	- Asheville						
Chloride	5.4	mg/L	1.0	0.60	1		09/09/22 03:05	16887-00-6	
Fluoride	0.10	mg/L	0.10	0.050	1		09/09/22 03:05		
Sulfate	177	mg/L	4.0	2.0	4		09/09/22 09:11		



Project: Plant Yates AP-1
Pace Project No.: 92623538

QC Batch: 723576 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623538001, 92623538002

METHOD BLANK: 3770129 Matrix: Water

Associated Lab Samples: 92623538001, 92623538002

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Calcium mg/L ND 1.0 0.12 09/15/22 20:13

LABORATORY CONTROL SAMPLE: 3770130

Date: 09/20/2022 07:26 PM

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Calcium mg/L 1.0 103 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770131 3770132

MS MSD 92623294001 Spike Spike

92623294001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Limits 40.6 40.6 20 M1 Calcium mg/L 40.8 25 75-125

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.



Plant Yates AP-1 Project:

Pace Project No.: 92623538

Calcium

Date: 09/20/2022 07:26 PM

QC Batch: 723581 Analysis Method: **EPA 6010D** QC Batch Method: **EPA 3010A** Analysis Description: 6010D ATL

> Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

METHOD BLANK: 3770156 Matrix: Water

Associated Lab Samples: 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

> Reporting Qualifiers Parameter Units Result Limit MDL Analyzed ND 1.0 0.12 09/15/22 17:50 mg/L

LABORATORY CONTROL SAMPLE: 3770157

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units Calcium 0.98J 98 80-120 mg/L

Blank

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3770158 3770159

> MSD MS

92623538003 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec **RPD** RPD Qual Result Conc. % Rec Limits 105 104 20 M1 Calcium mg/L 104 -111 -62 75-125

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.



Project: Plant Yates AP-1

Pace Project No.: 92623538

Date: 09/20/2022 07:26 PM

QC Batch: 723784 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623538001, 92623538002, 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

METHOD BLANK: 3771287 Matrix: Water

Associated Lab Samples: 92623538001, 92623538002, 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/17/22 19:16	
Arsenic	mg/L	ND	0.0050	0.0022	09/17/22 19:16	
Barium	mg/L	ND	0.0050	0.00067	09/17/22 19:16	
Beryllium	mg/L	ND	0.00050	0.000054	09/17/22 19:16	
Boron	mg/L	ND	0.040	0.0086	09/17/22 19:16	
Cadmium	mg/L	ND	0.00050	0.00011	09/17/22 19:16	
Chromium	mg/L	ND	0.0050	0.0011	09/17/22 19:16	
Cobalt	mg/L	ND	0.0050	0.00039	09/17/22 19:16	
Lead	mg/L	ND	0.0010	0.00089	09/17/22 19:16	
Lithium	mg/L	ND	0.030	0.00073	09/17/22 19:16	
Molybdenum	mg/L	ND	0.010	0.00074	09/17/22 19:16	
Selenium	mg/L	ND	0.0050	0.0014	09/17/22 19:16	
Thallium	mg/L	ND	0.0010	0.00018	09/17/22 19:16	

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Antimony	mg/L	0.1	0.11	106	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.092	92	80-120	
Cobalt	mg/L	0.1	0.090	90	80-120	
_ead	mg/L	0.1	0.096	96	80-120	
_ithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Γhallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3771		3771522								
			MS	MSD								
		92623294002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	105	102	75-125	2	20	
Arsenic	mg/L	0.0035J	0.1	0.1	0.10	0.10	100	100	75-125	0	20	

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



QUALITY CONTROL DATA

Project: Plant Yates AP-1
Pace Project No.: 92623538

MATRIX SPIKE & MATRIX	SPIKE DUPLIC	CATE: 3771			3771522							
Parameter	g Units	2623294002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.058	0.1	0.1	0.16	0.16	98	100	75-125	1	20	
Beryllium	mg/L	0.00037J	0.1	0.1	0.093	0.090	93	90	75-125	3	20	
Boron	mg/L	0.015J	1	1	0.92	0.91	91	89	75-125	2	20	
Cadmium	mg/L	0.00026J	0.1	0.1	0.10	0.099	100	98	75-125	1	20	
Chromium	mg/L	0.0015J	0.1	0.1	0.097	0.093	95	92	75-125	4	20	
Cobalt	mg/L	0.00087J	0.1	0.1	0.096	0.092	96	91	75-125	5	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.092	95	92	75-125	3	20	
Lithium	mg/L	0.0019J	0.1	0.1	0.099	0.096	97	94	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	105	102	75-125	3	20	
Selenium	mg/L	0.030	0.1	0.1	0.13	0.13	99	102	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.093	96	93	75-125	4	20	

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



Plant Yates AP-1 Project:

LABORATORY CONTROL SAMPLE:

Date: 09/20/2022 07:26 PM

Pace Project No.: 92623538

Mercury

QC Batch: 723555 Analysis Method: EPA 7470A QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury

> Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623538001, 92623538002, 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

METHOD BLANK: Matrix: Water

92623538001, 92623538002, 92623538003, 92623538004, 92623538005, 92623538006, 92623538007 Associated Lab Samples:

Blank Reporting Qualifiers Parameter Units Result Limit MDL Analyzed ND 0.00020 0.00013 09/16/22 12:15 mg/L

3769986

Spike LCS LCS % Rec Result % Rec Limits Qualifiers Parameter Units Conc.

Mercury 0.0025 0.0024 98 80-120 mg/L

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3769987 3769988

MSD MS 92623294001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units **RPD** RPD Result Conc. Conc. Result Result % Rec % Rec Limits Qual Mercury mg/L ND 0.0025 0.0025 0.0023 0.0022 90 88 75-125 2 20

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



Project: Plant Yates AP-1

Pace Project No.: 92623538

QC Batch: 721455 Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623538001, 92623538002, 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

METHOD BLANK: 3759030 Matrix: Water

Associated Lab Samples: 92623538001, 92623538002, 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

Blank Reporting

ParameterUnitsResultLimitMDLAnalyzedQualifiersTotal Dissolved Solidsmg/LND25.010.009/05/22 12:59

LABORATORY CONTROL SAMPLE: 3759031

Spike LCS LCS % Rec Conc. % Rec Limits Qualifiers Parameter Units Result **Total Dissolved Solids** 389 97 80-120 mg/L

SAMPLE DUPLICATE: 3759032

92623226010 Dup Max
Parameter Units Result Repl RPD Qualifiers

Total Dissolved Solids mg/L 33.0 44.0 29 25 D6

SAMPLE DUPLICATE: 3759033

Date: 09/20/2022 07:26 PM

92623533001 Dup Max RPD RPD Parameter Units Result Result Qualifiers Total Dissolved Solids 206 mg/L 204 1 25

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



Project: Plant Yates AP-1

Pace Project No.: 92623538

Date: 09/20/2022 07:26 PM

QC Batch: 722008 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: 92623538001, 92623538002, 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

METHOD BLANK: 3761879 Matrix: Water

Associated Lab Samples: 92623538001, 92623538002, 92623538003, 92623538004, 92623538005, 92623538006, 92623538007

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/08/22 21:58	
Fluoride	mg/L	ND	0.10	0.050	09/08/22 21:58	
Sulfate	ma/L	ND	1.0	0.50	09/08/22 21:58	

LABORATORY CONTROL SAMPLE:	3761880					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.4	94	90-110	
Sulfate	ma/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3761	881		3761882							
			MS	MSD								
		92623532006	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	5.5	50	50	57.4	57.9	104	105	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	96	98	90-110	2	10	
Sulfate	mg/L	67.9	50	50	117	117	99	99	90-110	0	10	

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3761	883		3761884							
			MS	MSD								
		92623294009	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	14.5	50	50	66.1	66.6	103	104	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.4	94	95	90-110	0	10	
Sulfate	mg/L	280	50	50	326	329	93	100	90-110	1	10	

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



QUALIFIERS

Project: Plant Yates AP-1
Pace Project No.: 92623538

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Date: 09/20/2022 07:26 PM

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates AP-1
Pace Project No.: 92623538

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92623538001	YGWC-52			_	
92623538002	YGWC-46A				
2623538006	YGWC-44				
2623538007	YGWC-45				
2623538001	YGWC-52	EPA 3010A	723576	EPA 6010D	723671
2623538002	YGWC-46A	EPA 3010A	723576	EPA 6010D	723671
2623538003	AP-1-DUP-1	EPA 3010A	723581	EPA 6010D	723670
2623538004	AP-1 EB-1	EPA 3010A	723581	EPA 6010D	723670
2623538005	AP-1 FB-1	EPA 3010A	723581	EPA 6010D	723670
2623538006	YGWC-44	EPA 3010A	723581	EPA 6010D	723670
2623538007	YGWC-45	EPA 3010A	723581	EPA 6010D	723670
2623538001	YGWC-52	EPA 3005A	723784	EPA 6020B	723868
2623538002	YGWC-46A	EPA 3005A	723784	EPA 6020B	723868
2623538003	AP-1-DUP-1	EPA 3005A	723784	EPA 6020B	723868
2623538004	AP-1 EB-1	EPA 3005A	723784	EPA 6020B	723868
2623538005	AP-1 FB-1	EPA 3005A	723784	EPA 6020B	723868
2623538006	YGWC-44	EPA 3005A	723784	EPA 6020B	723868
2623538007	YGWC-45	EPA 3005A	723784	EPA 6020B	723868
2623538001	YGWC-52	EPA 7470A	723555	EPA 7470A	723745
2623538002	YGWC-46A	EPA 7470A	723555	EPA 7470A	723745
2623538003	AP-1-DUP-1	EPA 7470A	723555	EPA 7470A	723745
2623538004	AP-1 EB-1	EPA 7470A	723555	EPA 7470A	723745
2623538005	AP-1 FB-1	EPA 7470A	723555	EPA 7470A	723745
2623538006	YGWC-44	EPA 7470A	723555	EPA 7470A	723745
2623538007	YGWC-45	EPA 7470A	723555	EPA 7470A	723745
2623538001	YGWC-52	SM 2540C-2015	721455		
2623538002	YGWC-46A	SM 2540C-2015	721455		
2623538003	AP-1-DUP-1	SM 2540C-2015	721455		
2623538004	AP-1 EB-1	SM 2540C-2015	721455		
2623538005	AP-1 FB-1	SM 2540C-2015	721455		
2623538006	YGWC-44	SM 2540C-2015	721455		
2623538007	YGWC-45	SM 2540C-2015	721455		
2623538001	YGWC-52	EPA 300.0 Rev 2.1 1993	722008		
2623538002	YGWC-46A	EPA 300.0 Rev 2.1 1993	722008		
2623538003	AP-1-DUP-1	EPA 300.0 Rev 2.1 1993	722008		
2623538004	AP-1 EB-1	EPA 300.0 Rev 2.1 1993	722008		
2623538005	AP-1 FB-1	EPA 300.0 Rev 2.1 1993	722008		
2623538006	YGWC-44	EPA 300.0 Rev 2.1 1993	722008		
92623538007	YGWC-45	EPA 300.0 Rev 2.1 1993	722008		

/-	Pace
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DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

Laboratory receiving samples:					
Asheville Eden Greenwood	Huntersvil	le	Raleigh	\Box	Mechanicsville Atlanta
Sample Condition Upon Receipt Client Name:	77. P. ST. L. P. L		137.1	ு Proje	UO# 92623538
_ GATO	WCV			loje	
Courier: Fed Ex UPS Commercial Dace	USPS Other		Clie	ent	92623538
Custody Seal Present? Yes 70 Sea	ils Intact?	□Yes	□No		Date/Initials Person Examining Contents: 9///22
Packing Material: Bubble Wrap B	ubble Bags	None		her	124
Thermometer:	acole pogs		: 🗀 0	ner	Biological Tissue Frozen? Yes No N/A
1 IR Gun 10: 230	Type of Ice		المسيد	res.	
5 Correction Fact	tor:	: 🗀	Wet □BI	lue	None
Cooler Temp: Add/Subtract	0.0				Temp should be above freezing to 6°C
Cooler Temp Corrected (°C):	25		-		Samples out of temp criteria. Samples on ice, cooling process
USDA Regulated Soil (N/A, water sample)					has begun
Did samples originate in a quarantine zone within the (check maps)? Yes No	ne United States:	CA, NY,	or SC		Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No
Chile (Count D					Comments/Discrepancy:
Chain of Custody Present?	₫/es	□No	□N/A	1.	
Samples Arrived within Hold Time?	□ res	□No	□N/A	2.	
Short Hold Time Analysis (<72 hr.)?	□Yes	☐N _o	□N/A	3.	
Rush Turn Around Time Requested?	□Yes	No	□N/A	4.	
Sufficient Volume?	Tes	□No	□N/A	5	
Correct Containers Used?	Ø Yes	□No	□N/A	6.	
-Pace Containers Used?	Pres	□No	□N/A		
Containers Intact?	res	□No	□N/A	7.	
Dissolved analysis: Samples Field Filtered? Sample Labels Match COC?	□Yes	□No	_ DMTA_	8.	
Sample Labels Watch COC?	€ Yes	ON	□n/a	9.	
-Includes Date/Time/ID/Analysis Matrix:	W				
Headspace in VOA Vials (>5-6mm)?	□Yes	□No	□N/A	10.	9
Trip Blank Present?	□Yes	□No	□M/A	11	
Trip Blank Custody Seals Present?	□Yes	□No	N/A		
COMMENTS/SAMPLE DISCREPANCY				1	Field Data Required? Yes No
CLIENT NOTIFICATION/RESOLUTION			L	ot ID	of split containers
CELEVI NOTH TEXTICALLY RESOLUTION				_	pH Strip Lot# 10D4611
Parson contacted		-		_	■ 1000 (
Person contacted:			Date/Time		
Project Manager SCURF Review:					Date:
Project Manager SRF Review:					
-,					Date:



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

WO#: 92623538

PM: NMG Due Date: 09/16/22

TENE DO DO D

CLIENT: GA-GA Power

Project

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

Exceptions: VOA, Coliform, TQC, Oil and Grease, DRO/8015 (water) DOC, LLHg

- **Bottom half of box is to list number of bottles
- ***Check all unpreserved Nitrates for chlorine

	(CI-)						(6<)	-	pavi	(ci-)		(ci-)														(cl-)		N/A)
Item#	BP4U-125 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)	BP45-125 mL Plastic H2SO4 (pH < 2) (Cl	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (C	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A)(CI-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CI-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2504 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCI (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG3U-40 ml. VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG95-40 ml. VOA H2504 (N/A)	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)	BPIN	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.	AGOU-100 mL Amber Unpreserved (N/A) (CI-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			X							/											X	1			
2		ł	1			X							1											2				
3		1)			X							1											3				
4		1				V							/		1									7				
5		Ì	1			1							1											3				
6		1	١			X																		2				
7		١	1			1/																		2				
8													1															
9																												
10													1											1				
11															1													
12																												

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation	Amount of Preservative	Lot#
				adjusted	added	
		-				
341						

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

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NY / Analytical Request Doc At DOCUMENT All relevant fields must be	Soluthern Co.			Pezo Project Maneger Nicole D'O'reo		Preservantiens			100 100 100 100 100 100 100 100 100 100	HI WE WE WE WE WE WE WE WE WE WE WE WE WE	XXX	*	X X X			×			T T		ACCEPTED BY / AFRILLATION	plus	Kyon Williams I'mu	11/11/11/11/11		1 Would	Aces DATE SQUE
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Мфоглавніса.	Paper 10 SCS Confects Copy To. Arcadis Confects	Potsets Only	Project Name: Plant Variae AD 1	Project Number		(liet on ea	epos en en en en en en en en en en en en en	SOOE HOLD SOLE	SAMME SAMME	0	c Keltz //ZS	2070	ט			0 00	0	9	5	CONTRACTOR OF LAND	D	A STATE OF THE STA	De Car	DO TOTAL BUTTON 19 POCA	SABPLER MARE STORMTURE	PRINT Nam	
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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

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							Analysis Filtered (YIN)																	DATE TIME	9/1/2,020	+	2501 01/11			
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Section C Invoice Information:	Attention	Company Name	Address	Paca Quote	Pace Project Manager	Pace Profile #*			NO		SAMPLE TEMP A OP CONTAINER Unpreserved H2SO4	T	5 2	2 5	5 2	5 2	5 2	5 2	5 2	5 2	5 2	5 2	5 2	DATE TIME	122 0800 ZZ	77,	11 1063	ATURE	1	
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rmation:	SCS Contacts	Arcadis Contacts			Plant Yates AP-1				COLL	START	DATE TIME	8/3/1120			8/3/ 1450	8/3/ -	04.11 K/80	0 8/3/ 1135						RELINQUISHED BY / AFFILLATION	À	1115	1711,a-1/R	SAMPLE	18	-
2				Purchase Order #	roject Name Pla	Project Number		(Hel (CODE	p∞ piev ses	\$ \$ £ \$ 5 \$ € \$ 5 \$ 6 \$ 7 \$ 7 \$ 7 \$ 7 \$ 7 \$ 7 \$ 7 \$ 7	WT G	WT G	WT G	WT G	WT G	WT G	WT G	WT G	WT G	Wr G	WT G	WT G	RELINQUIS	24	Rule	Kyan W			
n Œ	æ	O			Fax	A CONTRACTOR OF THE PARTY OF TH			MATRIX Original Water	Water Water Product Product Selfsold Oil														OMMENTS		٥	App IV Metals 6020B: Antimony (Sb), Arsenic (As) Banum (Ba), Beryllium (Ba) Cadmium (Cd), Cintamium (Cr), Coball (Co), Lead (Pb), Lithum (Ll), Molybdenum (Mo), Sevenium (Se)			
Clier	' GA Power					Requested Due Date				SAMPLEID	One Character per box. (A-Z. 0-81') Sample Ids must be unique	YGWC-52	YGWC-44	YGWC-45	YGWC-46A	AP-1-DUP-1	AP-1-EB-1	AP-1-FB-1						ADDITIONAL COMMENTS	Anions Suite 300.0 (CLF. Sulfate)	App III Metals Boron 60208, Ca 6310D	tetals 6020B- Antimony (Sb), (Be) Cadmium (Cd), Chromi J.) Molybdenum (Mo), Seiemi Antimo (Ho)	AND THE PROPERTY OF THE PROPER		
Section A	Сотрапу	Address		Email To	Highe	Requeste					# MaTi	-	2	8	4	100	9	7	8	6	9	1	12		Anions St	App III Me	App IV M Beryttium Lithium (L			

Couler (V/V) SAMPLE CONDITION palsu (N/A) Ĭ Regulatory Agency 표 표 Весвілед оп Russian Chouse (YIN) State / Loca Georgia TEMP IN C 233 8 TIME The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately Requestall Analysis Filtered (Y/N) 11/10 DATE DATE Signed 7/1/22 CHAIN-OF-CUSTODY / Analytical Request Document 0566/21E8 GAR × × × 1DS (2540C) × × × × 1700 ACCEPTED BY / AFFILIATION × × × × C' E' 20¢ × App III / IV Metals × × × frailyses Test N/A Nicole D'Oteo William. onsitieM Noun Preservatives Nesssoa Southern Co. 10840 HOBN (Color Pace Project Manager ЭН Involce Information: EONH m m m Company Name Pace Profile # 270 HSZO4 Pace Quote Attention A30 TIME 1053 Address Unpreserved ~ ~ 8 2 2 s S 49 S DE CONTRINERS SAMPLER NAME AND SIGNATURE SAMPLE TEMP AT COLLECTION PRINT Name of SAMPLER: SIGNATURE OF SAMPLER DATE TIME 5 t 5 END DATE シナ COLLECTED RELINQUISHED BY / AFFILIATION William Apoce TME 355/ 27/0/10 pm Project Name Plant Yates AP-1 Project Number START Arcadis Contacts G 8/5/22 Report To SCS Contacts DATE 8 0 N WG G WG G WG G (G*GRAB C=COMP) SAMPLE TYPE O O ø 9 O 3 Š S. 0 9 3 Purchase Order # MATRIX CODE (see valid codes to left) CUM Copy To Section B MATRIX Denking Water Under Water Water Water Product SourSolid On Wige Art Chee App IV Matats 6020B: Antimony (Sb) Arsenic (As), Bartum (Ba). Beryllum (Ba), Cadmum (Cd), Chromum (Cr), Cobait (Co), Lead (Pb), Lithium (Lr), Molybdenum (Ma), Seienum (Sa) 7040A, Mercury (Hg). 1ないくのないのなったいん ADDITIONAL COMMENTS (A-Z, 0-9 / .) Sample Ids must be unique One Character per box. Phone 470 Cas Cals OFax SAMPLE ID App III Metals: Boron 6020B, Ca 60*0D Anions Suite 300 0 (Cl. F. Sulfate) GA Power Allanta, GA Required Client Information: AP-1-DUP-1 YGWC-46A YGWC-45 AP-1-EB-1 YGWC-52 YGWC-44 AP-1-FB-1 Requested Due Date Section A Ema To Address 5 12 # MaTI 3 40 Ø **7**-

Upgradient Wells

August 2022



Georgia Power Co. - Plant Yates

Data Review Report

Metals, General Chemistry, and Radium Analyses

SDGs #92623226 and 92623277

Analyses Performed By:

Pace Analytical Services – Asheville, North Carolina Pace Analytical Services – Peachtree Corners, Georgia Pace Analytical Services – Greensburg, Pennsylvania

Report #47077R Review Level: Tier II Project: 30143607.3A

Summary

This Data Review Report summarizes the review of Sample Delivery Groups (SDGs) #92623226 and 92623277 for samples collected in association with the Georgia Power Company – Plant Yates. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the chain of custody form and a table summarizing the data validation qualifiers. Analyses were performed on the following samples:

			Sample	Parent		Analysis	5
Sample ID	Lab ID	Matrix	Collection Date	Sample	RAD	MET	GEN CHEM
YGWA-17S	92623226001 92623277001	Water	8/30/2022		Х	Х	Х
YGWA-18S	92623226002 92623277002	Water	8/30/2022		х	Х	Х
YGWA-18I	92623226003 92623277003	Water	8/30/2022		х	Х	Х
GWA-2	92623226004 92623277004	Water	8/30/2022		Х	Х	Х
YGWA-5I	92623226005 92623277005	Water	8/30/2022		х	Х	Х
YGWA-5D	92623226006 92623277006	Water	8/30/2022		Х	Х	Х
YGWA-21I	92623226007 92623277007	Water	8/30/2022		х	Х	Х
YGWA-1D	92623226008 92623277008	Water	8/30/2022		х	Х	Х
YGWA-2I	92623226009 92623277009	Water	8/30/2022		х	Х	Х
YGWA-30I	92623226010 92623277010	Water	8/31/2022		х	Х	Х
YGWA-14S	92623226011 92623277011	Water	8/31/2022		х	Х	Х
YGWA-1L	92623226012 92623277012	Water	8/31/2022		х	Х	Х

		Sample Collection		Collection Parent		Parent		Analysis	5
Sample ID	Lab ID	Matrix	Date	Sample	RAD	MET	GEN CHEM		
YGWA-47	92623226013 92623277013	Water	8/31/2022		х	Х	Х		
YGWA-4I	92623226014 92623277014	Water	8/31/2022		х	Х	Х		
YGWA-20S	92623226015 92623277015	Water	8/31/2022		Х	Х	Х		
YGWA-3I	92623226016 92623277018	Water	8/31/2022		Х	Х	Х		
YGWA-3D	92623226017 92623277019	Water	8/31/2022		Х	Х	Х		
YGWA-39	92623226018 92623277016	Water	8/31/2022		х	Х	Х		
YGWA-40	92623226019 92623277017	Water	8/31/2022		х	х	Х		

Notes:

- 1. Metals and total dissolved solids (TDS) analysis performed by Pace Analytical Services Peachtree Corners, Georgia.
- 2. Anions (chloride, fluoride, and sulfate) analysis performed by Pace Analytical Services Asheville, North Carolina.
- 3. Radium analysis performed by Pace Analytical Services Greensburg, Pennsylvania.
- 4. pH analysis performed as a field measurement.

Analytical Data Package Documentation

The table below evaluates the data package completeness.

Items Reviewed	Rep	orted		mance ptable	Not Required
	No	Yes	No	Yes	Required
Sample receipt condition		Х		Х	
2. Requested analyses and sample results		Х		Х	
Master tracking list		Х		Х	
4. Methods of analysis		Х		Х	
5. Reporting limits		Х		Х	
6. Sample collection date		Х		Х	
7. Laboratory sample received date		Х		Х	
8. Sample preservation verification (as applicable)		Х		Х	
Sample preparation/extraction/analysis dates		Х		Х	
10. Fully executed chain-of-custody form		Х		Х	
11. Narrative summary of QA or sample problems provided		Х		Х	
12. Data package completeness and compliance		Х		Х	

Note:

QA = quality assurance

Inorganic Analysis Introduction

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010D, 6020B, 7470A, 9315, and 9320; Standard Method (SM) SM4500-H+ B and SM2540C; and USEPA Method 300.0. Data were reviewed in accordance with USEPA 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), USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2), and the USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, EPA 542-R-20-006, November 2020 (with reference to the historical USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, OSWER 9240.1-45, October 2004, as appropriate).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers
 - U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.
 - J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).
- Quantitation (Q) Qualifiers
 - E The reported value is estimated due to the presence of interference.
 - N Spiked sample recovery is not within control limits.
 - Duplicate analysis is not within control limits.
- Validation Qualifiers
 - J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.
 - UJ The analyte was not detected above the reporting limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.
 - UB Analyte considered non-detect at the listed value due to associated blank contamination.
 - R The sample results are rejected.

Data Review Report

Two facts should be noted by all data users. First, the "R" flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

Metals Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010D/6020B	Water	180 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.
SW-846 7470A	Water	28 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.

Note:

s.u. = standard units

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

All compounds associated with the QA blanks exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
GWA-2	Vanadium (MB)	Detected sample results <rl <bal<="" and="" td=""><td>"UB" at the RL</td></rl>	"UB" at the RL

Notes:

MB = Method blank

RL = Reporting limit

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater.

The MS/MSD analysis performed using sample YWGA-17S in association with SW-846 6010D analysis exhibited recoveries within the control limits.

The MS/MSD analysis performed using sample YGWA-18S in association with SW-846 6020B and SW-846 7470A analysis exhibited recoveries within the control limits.

The MS/MSD analysis performed on sample location YGWA-5I in association with SW-846 6010D analysis exhibited recoveries outside of the acceptance limits as presented in the table below.

Sample Location	Analyte	MS Recovery	MSD Recovery
YGWA-5I	Calcium	73%	AC (85%)

Note:

AC = Acceptable

The criteria used to evaluate MS/MSD recoveries are presented in the following table. In the case of an MS/MSD deviation, the sample results are qualified. The qualifications are applied to all sample results associated with the sample preparation batch.

Control limit	Sample Result	Qualification
MS/MSD percent recovery 30% to 74%	Non-detect	UJ
MO/MOD percent recovery 30 % to 74 %	Detect	J
MS/MSD percent recovery <30%	Non-detect	R
MS/MSD percent recovery <30%	Detect	J
MS/MSD percent recovery >125%	Non-detect	No Action
Mo/Mob percent recovery >12376	Detect	J

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

MS/MSD analysis was performed in replacement of the laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPDs.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate sample was not collected in association with this SDG.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Metals

Reported		Performance Acceptable		Not Required	
No	Yes	No	Yes		
	AES)				
	Х		Х		
	Х		Х		
		1	1	I	
	Х	Х			
X				Х	
	Х		Х		
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	X		Х		
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Notes:

%R Percent recovery

RPD Relative percent difference

General Chemistry Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
pH by SM4500-H+ B	Water	ASAP	Cool to <6°C
Total Dissolved Solids (TDS) by SM2540C	Water	7 days from collection to analysis	Cool to <6°C
Chloride, Fluoride, and Sulfate by USEPA 300.0	Water	28 days from collection to analysis	Cool to <6°C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

The MS/MSD analysis performed using samples YGWA-18I and YGWA-20S in association with anions analysis exhibited recoveries within the control limits.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

The laboratory duplicate analysis performed using samples YGWA-17S, YGWA-5D, and YGWA-30I in association with TDS analysis exhibited an RPD or difference in the results within the control limit.

MS/MSD analysis was performed in replacement of the laboratory duplicate analysis in association with anions. The MS/MSD recoveries exhibited acceptable RPDs.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate sample was not collected in association with this SDG.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for General Chemistry

General Chemistry: SM4500-H+ B, SM2540C, USEPA	Reported		Performance Acceptable		Not Required	
300.0	No	Yes	No	Yes		
Miscellaneous Instrumentation						
Tier II Validation						
Holding Times		Х		Х		
Reporting limits (units)		Х		Х		
Blanks	ı	1	I	I		
A. Method Blanks		Х		Х		
B. Equipment/Field Blanks	Х				Х	
Laboratory Control Sample (LCS) %R		Х		Х		
Matrix Spike (MS) %R		Х		Х		
Matrix Spike Duplicate (MSD) %R		Х		Х		
MS/MSD Precision (RPD)		Х		Х		
Laboratory Duplicate (RPD)		Х		Х		
Field Duplicate (RPD)	Х				X	

Notes:

%R Percent recovery

RPD Relative percent difference

Radiological Analyses

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Radium-226 by SW-846 9315	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.
Radium-228 by SW-846 9320	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.

Note:

s.u. = standard units

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and field/rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field/rinse blanks measure contamination of samples during field operations.

Blank results should be verified to be accurately reported and that tolerance limits (±2 sigma or standard deviation) were not exceeded; and blank results verified to be less than the minimum detectable concentration (MDC).

For blanks to be considered not applicable, verify net blank results are less than the associated uncertainty by evaluating the blank results based on the following three criteria. If either of these criteria is true, the blank is considered not suspect of contamination (or non-detect).

- 1. Is the blank result less than the uncertainty and less than the MDC?
- 2. Does the blank have an uncertainty greater than the result (or indistinguishable from background) or does the blank result fall between its uncertainty and its MDC?

If the blank QC results fall outside the appropriate tolerance limits or if the net blank results are not less than the associated uncertainty, the following equation for normalized absolute difference (NAD) should be used in determining the effect of possible blank contamination on the sample results:

Normalized absolute difference
$$_{MethodBlan \, k} = \frac{ / \, Sample \, - \, Blank \, / }{ \sqrt{ \left(U_{Sample} \, \right)^2 + \left(U_{Blank} \, \right)^2 }}$$

Where:

Usample = uncertainty of the sample

U_{Blank} = uncertainty of the blank

Sample = concentration of isotope in sample

Blank = concentration of isotope in blank

Normalized Absolute Difference	Qualification
> 2.58	None
1.96 > x < 2.58	J
x < 1.96	J*

Note:

Radium-226 was detected in the method blank, however, the activity was measured as less than the uncertainty and MDC. Hence, the blank results are considered non-detect and no qualification of the results was required.

Radium-228 was detected in the method blank at an activity greater than the uncertainty and MDC. The NAD was calculated for each sample. The Radium-228 results in samples YGWA-17S, YGWA-18S, YGWA-18I, GWA-2, YGWA-5I, YGWA-2II, YGWA-1D, YGWA-2I, and YGWA-3D were qualified as "J" since the NAD were less than 1.96. The Radium-228 results in sample YGWA-5D was qualified as "J" since the NAD was between 1.96 and 2.58. No qualifiers were assigned to the Radium-228 results in samples YGWA-30I, YGWA-14S, YGWA-1I, YGWA-47, YGWA-4I, YGWA-39, YGWA-40, and YGWA-3I since the activities were less than the MDC.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

MS samples are not typically analyzed for gamma spectral content due to the inability of the laboratory to homogenize spike material with the sample.

If performed, the spike analysis must exhibit a percent recovery within the control limits of 70% to 130%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits.

In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of $< \pm 3$ sigma for either.

The numerical performance indicator for a matrix spike sample is calculated by:

$$Z_{MS} = \frac{x - x_0 - c}{\sqrt{u^2(x) + u^2(x_0) + u^2(c)}}$$

Where:

x = measured concentration of the spiked sample.

 x_0 = measured concentration of the unspiked sample.

c = spike concentration added.

^{* =} Minimally the result should be qualified as estimated, J; however, if other quality indicators are deficient the validator may determine the result should be qualified as rejected, R

 $u^2(x)$, $u^2(x0)$, $u^2(c)$ = the squares of the respective standard uncertainties of these values.

MS performance for all matrices is acceptable when the numerical performance indicator calculation yields a value between ±3 sigma. Warning limits have been established as ±2 sigma.

MS analysis was not performed using a sample from this SDG.

3.2 Laboratory Duplicate Analysis

Duplicate analyses are indicators of laboratory precision based on each sample matrix. For replicate analysis results to be considered in agreement the duplicate error ratio (DER) must be less than 2.13. In the event the DER is outside of the limit of 2.13, a numerical indicator to make assessments is calculated, with a limit of ±3 sigma or standard deviation.

The numerical performance indicator for laboratory duplicates is calculated by:

$$Z_{\text{Dup}} = \frac{x_1 - x_2}{\sqrt{u^2(x_1) + u^2(x_2)}}$$

Where:

 x_1 , x_2 = two measured activity concentrations.

 $u^2(x_1)$, $u^2(x_2)$ = the combined standard uncertainty of each measurement squared.

Duplicate sample performance is acceptable when the numerical performance indicator calculation yields a value between ±3 sigma. Warning limits have been established as ±2 sigma.

The laboratory duplicate analysis performed on sample location YGWA-39 in association with SW-846 9315 analysis exhibited acceptable difference between the results.

The laboratory duplicate analysis performed on sample location YGWA-5D in association with SW-846 9320 analysis exhibited acceptable difference between the results.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. There are no specific review criteria for radiological field replicate analyses comparability. The degree of agreement between these replicates is to be used in conjunction with all of the remaining quality control results as an aid in the decision as to the overall quality of the data. Data are not to be qualified due to field replicates alone. To determine the level of agreement between the replicates, the following guidelines have been established:

Data should be considered in agreement if results are within a factor of four of each other. Data between a factor of four and five of each other should be considered as a minor discrepancy and data greater than a factor of five should be considered a major discrepancy.

A field duplicate sample was not collected in association with this SDG.

5. Tracer or Carrier

Tracers and carriers are used in radiological separation methods to provide evaluation of chemical separation. Chemical yield is evaluated through the recovery of chemical species spiked into samples. Yield is evaluated radiometrically with a tracer and gravimetrically with a carrier. A control limit of 30% to 110% is applied to each sample spiked with either a carrier and/or a tracer.

The tracer and carrier analyses exhibited recoveries within the control limits.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 60% to 135%. In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of +/- 3 sigma.

The numerical performance indicator for a laboratory control sample is calculated by:

$$Z_{\text{LCS}} = \frac{x - c}{\sqrt{u^2(x) + u^2(c)}}$$

Where:

x = Analytical result of the LCS

c = Known concentration of the LCS

 $u^2(x)$ = combined standard uncertainty of the result squared.

 $u^2(c)$ = combined standard uncertainty of the LCS value squared.

LCS performance is acceptable when the numerical performance indicator calculation yields a value between ±3 sigma. Warning limits have been established as ±2 sigma.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Isotope Identification

For sample results to be considered "non-detect", evaluate data based on the following two criteria. <u>If either one</u> of these criteria is true, the sample result is considered "non-detect".

- 1. Sample result is less than the uncertainty and less than the MDC/MDA; or
- 2. Sample has an uncertainty greater than the result (or indistinguishable from background) or result falls between its uncertainty and its MDC/MDA.

Based on the above criteria sample results should be considered non-detect as follows:

- YGWA-17S, YGWA-18I, GWA-2 Radium-226
- YGWA-41, YGWA-39, YGWA-3I Radium-228

- YGWA-18S, YGWA-5I, YGWA-2I Radium-226 and total Radium
- YGWA-47 Radium-228 and total Radium
- YGWA-30I, YGWA-14S, YGWA-1I, YGWA-20S, YGWA-40 Radium-226, Radium-228, and total Radium

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

Data Validation Checklist for Radiologicals

Radiologicals: SW-846 9315/9320	Rep	orted		rmance eptable	Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding Times		Х		Х	
Activity, +/- uncertainty, MDC/MDA		Х		Х	
Blanks			1	ı	
A. Method Blanks		Х	Х		
B. Equipment/Field Blanks	Х				Х
Carrier (Surrogate) %R		Х		Х	
Tracer (Surrogate) %R		Х		Х	
Laboratory Control Sample (LCS) %R		Х		Х	
Laboratory Control Sample Duplicate (LCSD) %R		Х		Х	
LCS/LCSD Precision (RPD)		Х		Х	
Matrix Spike (MS) %R	Х				Х
Matrix Spike Duplicate (MSD) %R	Х				Х
MS/MSD Precision (RPD)	Х				Х
Laboratory Duplicate (RPD)		X		Х	
Field Duplicate (RPD)	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

VALIDATION PERFORMED BY: Jennifer Singer

SIGNATURE:

DATE: November 8, 2022

Sknrifu Oslinger

PEER REVIEW: Dennis Capria

DATE: November 9, 2022

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ITEM#	SAMPLE ID Softman One Character per box. (A-Z, 0-9 /, -) Sample Ids must be unique	Water DW WT Weter WW p	x CODE (see valid cod	GRAB C	ART	DATE	ND	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HACI	NaOH	Na2S2O3	Methanol	- 12	Analyses lest	The source	. 00	RAD 9315/9320	And 1711 (months on the					Beardual Chinina (VA)		30	276	,
1	YGWA-47		wg		1	-	-		5	2	_	3	1		T	7	7	()	(x	-		+	П	П	1	П	pH:			
2	GWA-2		wg	G 0/30	1005	-	1 -		5	2		3	+		П	ヿ	7	K)	(x	×	7	7	П	T	\top	П		5.	39	
3	YGWA-4I		wg			-	-		5	2		3	1	Т	\Box	7	7	()	(x	×		\top	П	T	\top	П	pH:			
4	YGWA-5I		wg	G			-		5	2	1	3	\top	1	\Box	٦	7	()	(X	×	\top	T	П	T	\top	П	pH:			
5	YGWA-5D		wg	G			-		5	2		3	\top		\Box	1	7	,	(x	1	\neg	\top	П	T		П	pH:			***************************************
6	YGWA-17S	***************************************	wg	G		-	-		5	2		3	1	Т	T	1	7	()	(x	×	\neg	T	П	\Box	1	П	pH:	_		
7	YGWA-18S	and the second	WG	G			-		5	2		3					,	()	(x	x			П	T		П	pH:			
8	YGWA-18I		wg	G		-	-		5	2		3	1		\neg	٦	7	()	(x	×	T	T	П		Т	П	pH:			
9	YGWA-20S	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	wg	G		-	-		5	2	:	3	1			٦	7	()	(x	х		Т	П			П	pH:			
10	YGWA-21I		WG	G		_	-	-	5	2	:	3	T		T	٦	,	,	×	Х		Τ	П		Т	П	pH:			
11	YGWA-301		wg	G		-	-	-	5	2	-	3	\top			7	,	()	×	х		Т	П			П	pH:			
12	YGWA-14S		WG	G		-	-		5	2	-	3				٦	7	,	×	×	T		П			П	pH:			***************************************
	ADDITIONAL COMMENTS	F	ELINQU	ISHED BY /	AFFILIAT	ION	DA	TE	F	TIME			A	CCE	PTED	BY/	AFFI	LIAT	ION			DAT	E	71	ME		SAM	PLE C	ONDITIO	NS
Anione S	Surbe 300.0 (Cl. F. Sulfate)	-		12		/Arcadis	8/9	1/22	8	(00	2	2	n	Pr	E	بر	/	A	100	de	, 8	1/31	1/2	0	800					
	letals: Boron 6020B, Ca 6010D:	-	11	51	سو		//	1	1	2.	_	17	-	1	1/1	مهر ا			Pal		8	10,1	,	100						Î
	020B: Zn, Ag, Ni, V	- 17	210	an.	- 5	105	X131	125	10	00	7	Ξ	27	20		ماحرو	7	A.	27	~		7	-	, ,,	_	├-	+-	-		-
Beryllium Lithum (Metals 6020B: Antimony (Sb.), Arsenic (As), Barium (Ba n (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lei Li), Molybdenum (Mo), Selenium (Sa) Mercury (Hg)	d (Pb).	90 1	Vallar	~//	aa	8/31/	12	//	5.5		Ū		0	_	1	4/	1	1	•	25	3//2	22	US	3					
	1.3.7.7				SAMPLE	RNAME	AND SIGN	IATURE	Blag.	1				13					par P	Wal			and		16		5	\neg		
					PR	INT Nam	ne of SAM	PLER:)	212	1	,	3	a	n	15	ó	50	1						D III	o peni		K 4 Ž	2002
			¥		SIG	GNATUR	E of SAM	PLER:	<		55	>	-	or desired to the		~	Ť		TE SI		5	3/	30	12	2	TEMP	Race	(X/N)	Custod Sealed Cooler (Y/N)	Sampl Infact (Y/N)

Section Require Compa Address	ed Client Information: Ring: GA Power Re		SCS	Contacts					Atte	tion C lice In ntion:	forma S	outhe	em C	òo.]					Page		1	Of	
Email T		urchase Order		is Conta	CIS .				Add	ress:		_				_									Rec	ndator	y Apr	tocy	osejajani	1
Phone:	470.620.6176 Fax Pr	oject Name: oject Number		lant Yate	s Pooled	d Upgrad	tient		Pac	Proje	ct Ma		840	Nicc	ole D	'Ole	0				E					Geor		on		
	MATRIX Diriking Water Water Water Water Water Water Water Water Water Product SAMPLE ID	DW WT WW P	(See valid codes to left)	ST	GOLL	ECTED	ND ND	AT COLLECTION		T	P	reser	vativ	/es			U/L	I	Requ	ueste	d Ana	1	Filter	ed(Y	N)		9 (Y/N)			
ITEM #	One Character per box. Whe Air (A-Z, 0-91,-) Other Tessue	OL WP AR OT TS	MATRIX CODE (8		TIME	DATE	TIME	SAMPLE TEMP AT	# OF CONTAINERS	Unpreserved	HN03	HCI	NaOH	Na2S203	Methanol	Coner	Ann IRTV Mataic	CI F SOA	TDS (2540C)	RAD 9315/9320		App I / II (gpysum only)					Residual Chlorin			
1	YGWA-47		WG G	31			-		5	2	3		П				Ţ		(X	×			I			П	E	oH:		
2	GWA-2		WG G			-	-		5	2	3		Ш				>	()	×	×		x				Ш	E	H:		
3	YGWA-4I		NG G		R	-			5	2	3						Ľ	()	×	×						Ш	E	H:		
4	YGWA-5I		wg G	2/30/20	1052	-	-		5	2	3						,	()	×	х							E	h: 5	00	
5	YGWA-5D		NG G	1 30/2	1205	-	-		5	2	3						,	< >	×		П						F	н: 7.	40	
6	YGWA-17S	- I	NG G			-	-		5	2	3			T	Т		7	()	×	×	П			T		П		H:		
7	YGWA-18S		NG G			-			5	2	3					1	7	٠,	×	×			T			\Box	p	H:		
8	YGWA-18I	-	NG G			-	-		5	2	3		П	T	T	7	$\overline{}$	۲,	×	х	T	T				П		H:		
9	YGWA-20S		VG G			-			5	2	3		П	T	T	٦	×	()	×	х	П	7		T		П		H:		
10	YGWA-21I		NG G	8/3/2	1430	-	-		5	2	3	Т	П	\top	\top	7	×	()	×	×	\Box	1	\top	T	\Box	П	-		.58	
11	YGWA-30I		vg g	_	11 12	-	-		5	2	3	П	П	寸	\top	7	,	,	×	х	\top	T	T	T	\vdash	П	-	H:		
12	YGWA-14S	,	vg g						5	2	3	\vdash	\Box	1	1	1	×	(x	×	×	\top	ヿ	\top	T	\vdash	П	- 11	H:		
	ADDITIONAL COMMENTS	REL	_	SHED BY /	AFFILIAT	ION	DATE	E	1	IME			AC	CEP	TED	BY /	AFFII	LIAT	ION			DA	TE		TIME			-	ONDITION	18
App III N	Suite 300.0 (Cl. F, Suifate) Antais: Boron 6020B, Ca 6010D;	Ryan	R.	Mion	- h	Arcadis	8/3//2			03	K	yn.	1	1:11.	4-7		11.	re M	1		- 1	8/8	1/2	_	115		+		. 200	
App IV: I Beryllium Lithium (5020B: Zn, Ag, Ni, V Metals 6020B: Antimony (Sb), Arsenic (As), Barium (Ba), In (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Pb) (Li), Molybdenum (Mo), Selenium (Se) Mercury (Hg)).		- / - / / / / / / / / / / / -	1.//		, , ,					/		<i>)</i>		_	-	1				1	1							
					SAMPLE	RNAME	AND SIGNA	TURE										7 1				A A						u		
				ri l	PF	RINT Name	e of SAMPI	LER:	N	Tar	·K	0	100	-51	<u></u>											J.	1	pen	¥ 4 8	seles
					SI	GNATURE	of SAMPL	ER: 2	1	12	À	1	بر	-				DA	TE SI	gned	8	13	12	-1		TEMP	,	Received Ice (Y/N)	Sealed Cooler (Y/N)	Samp Intact (Y/N)

Section		Section B							97.50	tion	200																1		.)	
_	ed Client Information:	Required Pr				وريية			-	-	Inform	_		~		-									Pa	ge:		0	-	
Compa Address		Report To: Copy To:		Contacts dis Conta					_	ention	y Name		nem (JO.		-			-	-										
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Email T	o: aucoker@southernco.com	Purchase Or	for #						_	e Qu	_								-	-				-	Kelpar	anny r	Quity			
Phone:		Project Name	NAME OF TAXABLE PARTY.	lant Yate	c Poole	Llogra	tient				ject M	nan	or:	Nice	ole D	مار)	_		_	-					Ctat	Loc	etton	MINERS DIE	0-50/0	
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	MATRIX	CODE	as to left)	<u> </u>	COLL	ECTED				H	F	rese	ervati	ves	Т	N/A		+	┡	\vdash	+	\dashv	4	+	H	-				
ITEM#	SAMPLE ID One Character per box. (A-Z, 0-9 1, -) Sample Ids must be unique Other Character per box. Off Within Air. These	WT	g c	ST ST	ART	DATE	ND TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HCI	NaOH	Na2S2O3	Methanol	Analyses Test	5	CI, F, SO4	TDS (2540C)	RAD 9315/9320	App (/ II (gpysum only)			100,000		Residual Chtorine (Y/N)				
1	YGWA-39	100	WG (3			-		5	2		1	П	П	\neg	T	×	×	×	Х	1	П		T	П	T	pH:			
2	YGWA-40		wg c	3		-	- 1		5	2			П	П		1	х	×	×	х					Ħ		pH:			
3	YGWA-1I		wg c	3			- 1		5	2	-	1	\top	П	\top	1	×	×	х	X	\top	П			\top	7	pH:			
4	YGWA-1D		wd o	18/3N	1350	-			5	2	1	+	\top	\Box	+	1	×	x	х	x	\top	\Box	\dashv	1	\top	7	-	7.2		\neg
5	YGWA-1D YGWA-2I		wg c	19110	1000	-	-		-	2	1	-	\dagger	Ħ	\top	7	x	×	х	×	1	\Box	+	1	tt	1	pH:	7.0	4	
6	YGWA-3I		WG C	3	_	-	-		5	2	- 3	T	П	П	Т	1	×	×	х	х		П			П		pH:			
7	YGWA-3D		wg c	3		-			5	2	1	+	П	\exists	\top	1	×	×	x	×	\top	\Box	\top				pH:	-	F-UIII-IA MILIO	
8	TOWASE		+				-	\neg	\exists		\top	T	Ħ	\exists	\top	7		T	П		\top	H	\neg	1			pH:			\neg
9			H			-	-		\exists		1	t	Ħ	П	7	1		T	П	\neg	T	П	1		\Box	1	pH:			
10			\vdash	1			-		\neg	П		T				1						П	T		\Box		pH:			
11			\sqcap				-				T	T	\Box			1		T	П	\top	T	\Box	T	-			Marine			
12		20159-14000000000000000000000000000000000000		1		***			\dashv			T	T		\top	1		T	\Box		1	Ħ	\top			1				
	ADDITIONAL COMMENTS	R	ELINQUI	SHED BY /	AFFILIAT	ION	DAT	E	7	TIME			A	CCEP	TED	3Y / /	FFIL	LATR	ON			DATE		TIM	E		SAMPLE	CONDIT	TONS	
Anions 5	Suite 300.0 (Cl, F, Sulfate)	(4	heli	(Cas	Son	/Arcadis	7131	/2.	8	حو	1	7	K	1	E	<i>y</i> -	=	>	Au	5	8	1/2/	24	805	>				T	
App III M	Metals: Boron 6020B, Ca 6010D; 5020B; Zn, Ag, Ni, V	2	14/		5	July .	8/3/	/24	fo	50	3	Z,	an	N	11	Vin	~	Ź	Pad	8	8	gr/s	2	1000	3					
Beryllium Lithium (Metals 6020B: Antimony (Sb), Arsenic (As), Barium (Ba), n (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Li), Molybdenum (Mo), Selenium (Se) Mercury (Hg)		an V	Villia-	-1 /Pi	٧٤	8/41/2	2	11	153		-	7	0	2/	W		7	3		8/	131/2	2/	18	5					
					SAMPLE	RNAME	AND SIGNA	ATURE			112																8			
	6				PF	INT Nam	o of SAMP	LER:	11	C	911	-					- Andrew						(100)			P	eived (Custody Sealed Cooler	pies	(Y/N)
					SI	GNATUR	e of SAMP	LER:	N	' <	2	-	1150.0	0.02				DĄŢ	E Slo	ned:						TEMP	R S X	Seale	Sam	Nac Nac

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Requi	red Client Information:		ruired Projec	t Infor	mation:							Infon	matte													١.		1		2	
Compa	, crit one		THE RESERVED FOR		ontacts					-	entio	_	_	hem	Co		_			_						Pa	ge:	i	Of	0	`
Addres	ss: Atlanta, GA	Cop			s Conta					_		ny Nar		, iciti			-		_		-								1		
F1/3	·			- 3						Ad	dress	5:										Septiminal Control	2115	401500	100 PM	Regula	tory A	OBALY	1000 LONG	1 100	months of mile
Email 1	in a demonstration in the		chase Order	22	1					Pa	ce Q	uole:		7/1/2		12.00											-	10.42	_	-	
_	: 470.620.6176 Fa		ect Name:	Pla	ant Yate	s Poole	d Upgra	dient				roject	_			ole (O'OI	e0				ile sy	word)			State	Loc	etten	and President	Silitin	Metan
roque	Side Dee Date.	Pro	ect Number:				-			Pa	ce Pr	ofile#	: 1	0840			-211									C	eorgi	3			
T	1				T					-	_	_					_			Requ	ested	Anah	ets El	proc	(AW)				ON THE		國的影
		MATRIX	CODE	C=COMP)		COLL	ECTED		,				Pres	ervat	ives			X.								$\ \ $					
ITEM #	SAMPLE ID One Character per box (A-Z, 0-91, -) Sample Ida must be uni	T. Whose	ww 1	(G=GRAB		ART	E	ND	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	04	33	H	Na2S2O3	Methanol		Analyses Test	App mily Metals	TDS (2540C)	RAD 9315/9320	Apo I / II (apvsum only)					dual Chlorine (Y/N)				
<u>E</u>	YGWA-47			WWS G	DATE	TIME	DATE	TIME	3AM	-	-		HIVO3	N O	Na2	Meth	ŧ	_	_	_	-	Ago I	Ш	Ц		Щ	Residual		\perp		
2	č.			+	-	-	-	-	-	5	-	-	3	+	Н	Н	4	-	× /	-	×	\perp	\perp	Ш	_	₩	4	pH:			
Janes Sept.	GWA-2			G G			-	-	ļ	5	2	Ш	3	┸	Ш				x >	×	X	×		Ш				pH:			
3	YGWA-4I		w	GG	i			-		5	2		3				Į		x >	×	×			1		П		pH:			
4	YGWA-5I		w	GG			-	-		5	2	П	3	\top	П	П	\neg		x >	×	x	Т	П	П	\neg	П	7	pH:	\top		
5	YGWA-5D		w	G G	1		-	-	1	5	2	П	3	1	П	\vdash	7		x 5	×	1	\top	\forall	H	\top	\vdash	1		+	-	_
6	YGWA-17S		w	G G	1	1	-	_	1	5	2	Н	3	+	Н	\dashv	┪	-	x >	+	×	+	Н	Н	+	\vdash	-	pH:	+-	ţ.	-
7	YGWA-18S			d d	-		_		+	5	-	↤	3	╁	Н	\dashv	\dashv	-	x >	+	x	+	Н	Н	-	₩	-1	pH:	+	_	\dashv
8	YGWA-18I			GG		-			 	5	2	\vdash	3	╁	Н	+	-1	-	_	+	-	+	Н	Н	+	₩	-	pH:	+		
9	YGWA-20S			G G			_	_	-	5	2	-	3	+	Н	+	-	-	x x	+	X	╀	Н	Н	+	₩	-	pH:	+	_	
10	YGWA-21I			GG		-			-	-	-	\vdash	-	+	Н	+	-1	\vdash	X X	-	×	+	Н	Н		₩	4	pH:	+		
Carried Street, St.	2			_	7/1-1	WIGO	-		-	5	2	\vdash	3	+	Н	4	4	\vdash	X X	+	×	+	+	Н		₩	4	pH:			
11	YGWA-30I			G G	8/3)	Y130	-	-	_	5	2	Ш	3		Ш		_	Ŀ	X X	×	X	┸	Ш	Ш		Ш		pH: S.	<u> </u>		
12	YGWA-14S		w	GG	4131	1415	-	-		5	2		3		Ш];	x x	×	x						1	pH: S	15		- 1
	ADDITIONAL COM	MENTS	RELIN	lquisi	HED BY /	AFFILIAT	NOI	D,	ATE		TIME			A	CCE	PTED	BY,	AFF	LIAT	ION			DAT		TIME	E		SAMPLE C	оприн	ONS	
Anions	Suite 300.0 (CI, F, Sulfate)		hh	al:1	(6	rison	/Arcadis	9/11	22	10	80	,	2	//	19.	11	Z	9	- 4	25		19	1.1	,,	800	$\overline{}$				Т	
	Metals: Boron 6020B, Ca 6010D; 6020B; Zn, Ag, Ni, V		2/1	1	le	رمر	Au			Ĭ	<u></u>		ly	an	W	11:0	·~	-/	1	Paci	_ _	19	7 4	22	090					1	
Berylliun Lithium	Metals 6020B: Antimony (Sb), Ars m (Be), Cadmium (Cd), Chromium (Li), Molybdenum (Mo), Selenium Mercury (Hg)	(Cr), Cobalt (Co), Lead (Pb).	Ryan	h/i	llia-	Pac		91/	2.7	10	753	3	<i>T</i>			-						ľ				1					
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Section		Section B								Sec	ction	C												1		Г		2	-		~
-	ed Cilent Information:	Required Pro		-						_		Infon		-								Den		1		LF	age :	: eZ		Of a	<u> </u>
Address		Report To:			ontacts					_	entio	_		hem (Co.							1		1							,
Address	s: Atlanta, GA	Copy To:	Arc	adis	Conta	cts				_	_	ny Nar	ne:			-						_		4			2111	-			
Email T	o: laucoker@southernco.com	Purchase Ord	or tt.							_	dress	uote:											P Additi	1		Reg	datory	Agency	- 15 M		5145.05
Phone:	470.620.6176 Fax	Project Name	O π.	Plan	nt Vate	s Poole	i I Ingra	dient	-	_	_	oject I	lange	er	Nic	ole [חימו	00	Here			disci	nicoverit.	_		n de de colonia e a	ate / Lo		chinology sky.	PARTICIPATION AND IN	COLUMN STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET,
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Required Client Information:		Required Proj-	_	AND DESCRIPTION OF THE PERSON NAMED IN					-	-	-	mation	1:								_		1		P	age :		Of		┙
Company: GA Power		Report To:	_	S Conta					_	ention		Sout	hem	Co.						1020%	1		1		-		•	1		1
Address: Atlanta, GA		Copy To:	Arc	adis Cor	ntacts				-	_	ny Na	me:									_	-	_							
Email To: laucoker@souther		Purchase Orde	. 44.							dress	-	_									His	(C. 1995)	1000	2013	Rose	lating y	Agency	Adjusted to	Mary Mile	1500
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Sample ids must be	unique Thave	0T 76	MATRIX CO	SAMPLE TYPE			TIME	SAMPLE TEMP	# OF CONTAINERS	Unpreserved	HZSO4	HNO3	NaOH	Na25203	Methanol	Other	Analyses	a viall day	TDS (2540C)	RAD 9315/9320		App 1/11 (gpysum				Residual				
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12 YGWA-14S			WG	G		-	-		5	2	П	3	T	П			- 1	x :	x >	x			Π	Т			pH:			
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Compa			CS (Contacts		***************************************			***********	ntion	-	-	nem	Co.				**********			1		1			aye .			01 9	
Addres	s: Atlanta, GA Co	py To: A	rcad	is Contac	cts				Con	npany	Nam	e:						_	****		1		l							
Email T	o: laucoker@southernco.com Pu			-					-	ress:											ERROR	PER S			Reg	ulatory	Age	NCY	HISTORY	Modern Co.
Phone:	The state of the s	rchase Order # oject Name:		1					_	a Que																				
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Compar		-	Report			ontacts					-	ntion:	-	-	em C	,						1	1				eya .		+		
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Anions	Suite 300.0 (Cl. F, Sulfate)			Jes	246	41	Jan	/Arcadis	9/11	172	02	90		5	1/1	14	11	D	ک	14	20		94	1/21	(0)	00	_		4		
	Metals: Boron 6020B, Ca 60 6020B: Zn, Ag, Ni, V	10D;	-	MI	ul	15	-	the s	9/11	22			1	4	ar	W	11/1	q-	~!	/P	600		9/1	22	09	105					
App IV: Berylliu Lithium	Metals 60208: Antimony (SI m (Be), Cadmium (Cd), Chro (Li), Molybdenum (Mo), Sek Mercury (Hg)	mium (Cr), Cobalt (Co	m (Ba), o), Lead (Pb),	Ryan	h	lill-n	- JP	ru	9/1/	22	10	755	5																\parallel		
LIONAL		the state of the s					SAMPLE	RNAME	AND SIG	NATURE	Paris le	35-2	Territ		Late	lebe	MEG			11.17	15/15				State	A delign		1_	11		
							, Pi	RINT Man	e of SAM	PLERO	2					HECCH								Т			in C	no pan	À.	_	les
							1	GNATUE	E of SAM	PLER:		2							1	DATE:	Signe	± 9/	111	22	_		TEMPin	Received	Seale	3 S	Samples Intact (Y/N)

Section Require		ection B equired Proje	ct Info	mation:						ion C	forma	tion:											Γ	age :	1	Of	1
Compan			MINIMA TO SERVICE AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IN COLUMN TO THE PERSON NAMED IN	Contacts	***************************************	***************************************				tion:	-		m Co						\neg		1			aye.		101	
Address	Atlanta, GA			is Conta	cts				-		Name		00						\neg		1						
									Addr						7000			_	- 18	No restrict		arverer	Rem	distory .	Annery C	e domestro bio	M65H8004
Email To	: laucoker@southernco.com P	urchase Order	#:						-	Quo	te:			_					-		1					1	
Phone:	470.620.6176 Fax P	roject Name:	PI	ant Yate	s Pooled	Upgrad	dient		Pace	Proj	ect Ma	nager:	N	icole	D'O	leo		-		2,51540	0.0040	ALIDOUS P	St	te / Loc	ation	4 Hencheste	100000000000000
Request	ted Due Date:	roject Number	_	1 1					_	Prof		108									1			Georg	COLUMN TWO IS NOT THE OWNER.		
													-			ALC: N	(Alasta	Reque	sted /	vialys!	s Filter	ed (Y/I	4)			400 miles	
			€ 6		COLL	ECTED			П		Pi	reser	vative	s		X/N		Π		Ť	T						
ITEM #	SAMPLE ID One Character per box. (A-Z, 0-91,-) Sample ida must be unique MATRIX Water Water Water Water Water Water Water Water Water Water Water Water With Other Tlasse	WT WW P SL OL WP	MATRIX CODE (see vaid codes to left) SAMPLE TYPE (G=GRAB C=COMP)		ART		ND	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO3	нсі	NaOH Na2S203	Methanoi	Other	Analyses Test	CI, F. SO4	TDS (2540C)	RAD 9315/9320	App I / II (gpysum only)				Residual Chlorine (Y/N)			
COLUMN TO A			_	-	TIME	DATE	TIME	e)	-	-	_	+	ZZ	12	9	_		+	_	₹	Щ.	₩	_	"			
1	YGWA-39		wg g	8/3/12	1350	-	-		5	2	3	Ш		4_	Ц		x x	X	X		ш	\bot		Ш		130	
2	YGWA-40		wg g	18/31/21	iuto	-	-		5	2	3						x x	X	X						pH: L	53	
3	YGWA-1I		WG G			-	-		5	2	3	П		\top			x x	x	x		П	\Box			pH:		
4	YGWA-1D		wg g			_	_	_	5	2	3	-	\dashv	+	Н	-	x x	-	x	+-	+	+		\vdash		1	
Company Selection			-	+	-	_	_		+-+	-	_	+	-	+-	Н	-	-	+ +	-	+	Н-	+	-	Н	pH:	+	
5	YGWA-2I		wg g	<u> </u>			-		5	2	3			_	Ш	L	x x	X	×	\perp	ш	\perp			pH:		
6	YGWA-3I		WG G	i		-	-		5	2	3						x x	x	x						pH:		
7	YGWA-3D		wg g			-	-		5	2	3	П		Т	П		x x	X	х	Т	П	\Box			pH:		
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11						1	-		П		T	П	$\neg \vdash$	\Box	П		T				П	\Box					
12			_		_		_	_	Н	+	+	\vdash	_	+	Н	1	+	+	\dashv	+	H +	+		\vdash		_	
Alphasonim		NEW TOWNSHIP	TURN SUSS		Districted shirt		attenue la constitución	P-77 (2010)	- Inches	Nichten.	and the	DOM:	Authority (street		P-Spanish Co.		100,000		Military and		SA 4 - P2/5005		eservo es carsino			o company	p2Normore
SABAR	ADDITIONAL COMMENTS	REI	INQUI	SHED BY	AFFILIAT		Table 1 Ave	TE		IME		D	ACC	A /·I		10000	STATE OF STREET	PACC		9/	122		105		SAMPLE	OULIDING	NS
	Suite 300.0 (Cl, F, Sulfate)	17/4	16	1	9	/Arcadis	9/1	20	-			cya	71 .	VII	119		1.	n({	_	71	Alex	1-	(U)	-		-	
	Astals: Boron 6020B, Ca 6010D; 5020B; Zn, Ag. Ni, V	Kyo	in)	Viller	-1/9	Act	9/1/	22	10	63		/										L					
App IV: I Beryllium Lithium (7040A: I	Metals 6020B: Antimony (Sb), Arsenic (As), Barium (Ba), n (Be), Cadmium (Cd), Chromlum (Cr), Cobalt (Co), Lead (Pt (Li), Molybdenum (Mo), Selenium (Se) Mercury (Hg)	b).			,											**						+					
Maria de la compansión	The state of the s	- Innoverse	***************************************	*	SAMPLE	RNAME	AND SIGI	NATURE								Villa I		Sink					ASIR		1-	1	
					PI	GNATUR	e of SAM	PLER:	48000	Nu L	1	ال	Jest J				DA	TE SIG	ned:	5/1	127			TEMP in C	Received on toe (Y/N)	Sealed Cooler (Y/N)	Samples intact (Y/N)



SDG	Sample ID	Method	Analyte	Result	Units	Validation Qualifier	Reason for Validation Qualifier
92623226	GWA-2	SW846 6020B	Vanadium	0.010	mgL	UB	Blank contamination
	YGWA-5I	SW846 6010D	Calcium	2.5	mgL	J	MS %R < LCL
	YGWA-5D	SW846 6010D	Calcium	24.8	mgL	J	MS %R < LCL
	YGWA-21I	SW846 6010D	Calcium	7.3	mgL	J	MS %R < LCL
	YGWA-1D	SW846 6010D	Calcium	14.9	mgL	J	MS %R < LCL
	YGWA-2I	SW846 6010D	Calcium	25.4	mgL	J	MS %R < LCL
	YGWA-30I	SW846 6010D	Calcium	1.3	mgL	J	MS %R < LCL
	YGWA-14S	SW846 6010D	Calcium	1.3	mgL	J	MS %R < LCL
	YGWA-1L	SW846 6010D	Calcium	1.9	mgL	J	MS %R < LCL
	YGWA-47	SW846 6010D	Calcium	9.6	mgL	J	MS %R < LCL
	YGWA-4I	SW846 6010D	Calcium	8.9	mgL	J	MS %R < LCL
	YGWA-20S	SW846 6010D	Calcium	2.4	mgL	J	MS %R < LCL
	YGWA-3I	SW846 6010D	Calcium	23.5	mgL	J	MS %R < LCL
	YGWA-3D	SW846 6010D	Calcium	28.7	mgL	J	MS %R < LCL
	YGWA-39	SW846 6010D	Calcium	16.3	mgL	J	MS %R < LCL
	YGWA-40	SW846 6010D	Calcium	6.2	mgL	J	MS %R < LCL
92623277	YGWA-17S	SW846 9320	Radium-228	0.964 +/- 0.357	pCi/L	J	Blank contamination
	YGWA-18S	SW846 9320	Radium-228	0.542 +/- 0.287	pCi/L	J	Blank contamination
	YGWA-18I	SW846 9320	Radium-228	0.961 +/- 0.372	pCi/L	J	Blank contamination
	GWA-2	SW846 9320	Radium-228	1.34 +/- 0.454	pCi/L	J	Blank contamination
	YGWA-5I	SW846 9320	Radium-228	0.644 +/- 0.326	pCi/L	J	Blank contamination
	YGWA-5D	SW846 9320	Radium-228	2.21 +/- 0.587	pCi/L	J	Blank contamination
	YGWA-21I	SW846 9320	Radium-228	0.959 +/- 0.367	pCi/L	J	Blank contamination
	YGWA-1D	SW846 9320	Radium-228	0.579 +/- 0.293	pCi/L	J	Blank contamination
	YGWA-2I	SW846 9320	Radium-228	0.612 +/- 0.309	pCi/L	J	Blank contamination
	YGWA-3D	SW846 9320	Radium-228	0.927 +/- 0.394	pCi/L	J	Blank contamination

Abbreviations:

%R = percent recovery LCL = lower control limit mg/L = milligrams per liter MS = matrix spike pCi/L = picoCuries per liter

Qualifiers:

J = estimated result
UB = not detected due to blank contamination





September 21, 2022

Ms. Lauren Petty Southern Company 42 Inverness Center Parkway Birmingham, AL 35242

RE: Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory between August 31, 2022 and September 01, 2022. 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 Charlotte
- Pace Analytical Services Peachtree Corners, GA

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

Sincerely,

Micole D'oles

Nicole D'Oleo nicole.d'oleo@pacelabs.com (704)875-9092 Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Lauren Coker, Georgia Pwer
Noelia Gangi, Georgia Power
Geoffrey Gay, ARCADIS - Atlanta
Ben Hodges, Georgia Power
Kristen Jurinko
Laura Midkiff, Georgia Power
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Michael Smilley, Georgia Power

Becky Steever, Arcadis Albert Zumbuhl, Arcadis



REPORT OF LABORATORY ANALYSIS



CERTIFICATIONS

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Pace Analytical Services Charlotte

South Carolina Laboratory ID: 99006 South Carolina Certification #: 99006001

9800 Kincey Ave. Ste 100, Huntersville, NC 28078 South Carolina Drinking Water Cert. #: 99006003

North Carolina Drinking Water Certification #: 37706 Florida/NELAP Certification #: E87627 North Carolina Field Services Certification #: 5342 Kentucky UST Certification #: 84 North Carolina Wastewater Certification #: 12 Louisiana DoH Drinking Water #: LA029 South Carolina Laboratory ID: 99006 Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville

2225 Riverside Drive, Asheville, NC 28804 South Carolina Laboratory ID: 99030 Florida/NELAP Certification #: E87648 South Carolina Certification #: 99030001 Virginia/VELAP Certification #: 460222

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

Pace Analytical Services Peachtree Corners

110 Technology Pkwy, Peachtree Corners, GA 30092 North Carolina Certification #: 381 Florida DOH Certification #: E87315 South Carolina Certification #: 98011001

Georgia DW Inorganics Certification #: 812

REPORT OF LABORATORY ANALYSIS



SAMPLE SUMMARY

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92623226001	YGWA-17S	Water	08/30/22 15:40	08/31/22 11:03
92623226002	YGWA-18S	Water	08/30/22 10:10	08/31/22 11:03
92623226003	YGWA-18I	Water	08/30/22 13:35	08/31/22 11:03
92623226004	GWA-2	Water	08/30/22 10:05	08/31/22 11:03
92623226005	YGWA-5I	Water	08/30/22 10:52	08/31/22 11:03
92623226006	YGWA-5D	Water	08/30/22 12:05	08/31/22 11:03
92623226007	YGWA-21I	Water	08/30/22 14:30	08/31/22 11:03
92623226008	YGWA-1D	Water	08/30/22 13:50	08/31/22 11:03
92623226009	YGWA-2I	Water	08/30/22 10:00	08/31/22 11:03
92623226010	YGWA-30I	Water	08/31/22 11:30	09/01/22 09:05
92623226011	YGWA-14S	Water	08/31/22 14:15	09/01/22 09:05
92623226012	YGWA-1L	Water	08/31/22 09:10	09/01/22 09:05
92623226013	YGWA-47	Water	08/31/22 09:15	09/01/22 09:05
92623226014	YGWA-4I	Water	08/31/22 15:37	09/01/22 09:05
92623226015	YGWA-20S	Water	08/31/22 12:57	09/01/22 09:05
92623226016	YGWA-3I	Water	08/31/22 10:54	09/01/22 09:05
92623226017	YGWA-3D	Water	08/31/22 09:30	09/01/22 09:05
92623226018	YGWA-39	Water	08/31/22 13:50	09/01/22 09:05
92623226019	YGWA-40	Water	08/31/22 16:40	09/01/22 09:05

REPORT OF LABORATORY ANALYSIS



SAMPLE ANALYTE COUNT

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92623226001	YGWA-17S	EPA 6010D	<u> </u>	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92623226002	YGWA-18S	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92623226003	YGWA-18I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623226004	GWA-2	EPA 6010D	KH	1
		EPA 6020B	CW1	18
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623226005	YGWA-5I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92623226006	YGWA-5D	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92623226007	YGWA-21I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92623226008	YGWA-1D	EPA 6010D	KH	1
		EPA 6020B	CW1	13

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

ab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A		1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623226009	YGWA-2I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623226010	YGWA-30I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623226011	YGWA-14S	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
623226012	YGWA-1L	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
2623226013	YGWA-47	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
623226014	YGWA-4I	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		EPA 300.0 Rev 2.1 1993	CDC	3
623226015	YGWA-20S	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

	od Analysts	Analytes Reported	
EPA 300.0 Rev		3	
92623226016 YGWA-3I EPA 60 ⁻	IOD KH	1	
EPA 602	20B CW1	13	
EPA 741	70A VB	1	
SM 2540C	:-2015 BTS	1	
EPA 300.0 Rev	/ 2.1 1993 CDC	3	
92623226017 YGWA-3D EPA 60 ⁻	IOD KH	1	
EPA 602	20B CW1	13	
EPA 74	70A VB	1	
SM 2540C	-2015 BTS	1	
EPA 300.0 Rev	/ 2.1 1993 CDC	3	
92623226018 YGWA-39 EPA 60 ⁻	IOD KH	1	
EPA 602	20B CW1	13	
EPA 747	70A VB	1	
SM 2540C	-2015 BTS	1	
EPA 300.0 Rev	/ 2.1 1993 CDC	3	
92623226019 YGWA-40 EPA 60 ⁻¹	IOD KH	1	
EPA 602	20B CW1	13	
EPA 747	70A VB	1	
SM 2540C	-2015 BTS	1	
EPA 300.0 Rev	/ 2.1 1993 CDC	3	

PASI-A = Pace Analytical Services - Asheville PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2623226001	YGWA-17S					
	Performed by	Customer			08/31/22 15:58	
	рН	4.68	Std. Units		08/31/22 15:58	
EPA 6010D	Calcium	3.0	mg/L	1.0	09/12/22 21:17	
EPA 6020B	Barium	0.017	mg/L	0.0050	09/13/22 20:15	
EPA 6020B	Beryllium	0.00010J	mg/L	0.00050	09/13/22 20:15	
EPA 6020B	Boron	0.013J	mg/L	0.040	09/13/22 20:15	
SM 2540C-2015	Total Dissolved Solids	81.0	mg/L	25.0	09/02/22 11:11	
EPA 300.0 Rev 2.1 1993	Chloride	12.0	mg/L	1.0	09/08/22 01:38	
EPA 300.0 Rev 2.1 1993	Sulfate	4.7	mg/L	1.0	09/08/22 01:38	
2623226002	YGWA-18S					
	Performed by	Customer			08/31/22 15:58	
	рН	5.18	Std. Units		08/31/22 15:58	
EPA 6010D	Calcium	0.77J	mg/L	1.0	09/12/22 21:36	
EPA 6020B	Barium	0.012	mg/L	0.0050	09/16/22 15:01	
EPA 6020B	Beryllium	0.000082J	mg/L	0.00050	09/15/22 20:19	
EPA 6020B	Boron	0.014J	mg/L	0.040	09/15/22 20:19	
EPA 6020B	Chromium	0.0015J	mg/L	0.0050	09/15/22 20:19	
EPA 6020B	Lithium	0.0014J	mg/L	0.030	09/15/22 20:19	
SM 2540C-2015	Total Dissolved Solids	52.0	mg/L	25.0	09/02/22 11:11	
EPA 300.0 Rev 2.1 1993	Chloride	7.0	mg/L	1.0	09/08/22 01:52	
EPA 300.0 Rev 2.1 1993	Sulfate	1.3	mg/L	1.0	09/08/22 01:52	
2623226003	YGWA-18I					
	Performed by	Customer			08/31/22 15:59	
	рН	5.82	Std. Units		08/31/22 15:59	
EPA 6010D	Calcium	5.7	mg/L	1.0	09/12/22 21:41	
PA 6020B	Barium	0.017	mg/L	0.0050	09/15/22 20:43	
PA 6020B	Lithium	0.0036J	mg/L	0.030	09/15/22 20:43	
SM 2540C-2015	Total Dissolved Solids	100	mg/L	25.0	09/02/22 11:11	
PA 300.0 Rev 2.1 1993	Chloride	7.9	mg/L	1.0	09/08/22 02:06	
EPA 300.0 Rev 2.1 1993	Sulfate	0.78J	mg/L	1.0	09/08/22 02:06	
2623226004	GWA-2					
	Performed by	Customer	-		08/31/22 15:59	
	pH	5.39	Std. Units		08/31/22 15:59	
EPA 6010D	Calcium	23.5	mg/L		09/12/22 21:55	
EPA 6020B	Arsenic	0.0024J	mg/L		09/15/22 20:49	
EPA 6020B	Barium	0.031	mg/L		09/15/22 20:49	
EPA 6020B	Cobalt	0.075	mg/L	0.0050	09/15/22 20:49	
EPA 6020B	Lithium	0.0025J	mg/L	0.030	09/15/22 20:49	
EPA 6020B	Nickel	0.015	mg/L	0.0050	09/15/22 20:49	
EPA 6020B	Vanadium	0.0026J	mg/L	0.010		В
EPA 6020B	Zinc	0.011	mg/L	0.010	09/15/22 20:49	
SM 2540C-2015	Total Dissolved Solids	244	mg/L	25.0	09/02/22 11:12	
EPA 300.0 Rev 2.1 1993	Chloride	6.3	mg/L	1.0	09/08/22 02:48	
EPA 300.0 Rev 2.1 1993	Fluoride	0.086J	mg/L	0.10	09/08/22 02:48	
EPA 300.0 Rev 2.1 1993	Sulfate	101	mg/L	2.0	09/08/22 07:36	



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

_ab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2623226005	YGWA-5I					
	Performed by	Customer			08/31/22 16:00	
	рН	5.00	Std. Units		08/31/22 16:00	
EPA 6010D	Calcium	2.5	mg/L	1.0	09/14/22 18:34	M1
EPA 6020B	Barium	0.017	mg/L	0.0050	09/15/22 20:55	
EPA 6020B	Lithium	0.0035J	mg/L	0.030	09/15/22 20:55	
SM 2540C-2015	Total Dissolved Solids	86.0	mg/L	25.0	09/02/22 11:12	
PA 300.0 Rev 2.1 1993	Chloride	4.4	mg/L	1.0	09/08/22 03:02	
EPA 300.0 Rev 2.1 1993	Sulfate	2.4	mg/L	1.0	09/08/22 03:02	
2623226006	YGWA-5D					
	Performed by	Customer			08/31/22 16:00	
	pН	7.40	Std. Units		08/31/22 16:00	
PA 6010D	Calcium	24.8	mg/L	1.0	09/14/22 18:53	
PA 6020B	Arsenic	0.0031J	mg/L	0.0050	09/15/22 21:01	
PA 6020B	Barium	0.0079	mg/L	0.0050	09/15/22 21:01	
PA 6020B	Boron	0.0098J	mg/L	0.040	09/15/22 21:01	
PA 6020B	Lithium	0.0068J	mg/L	0.030	09/15/22 21:01	
PA 6020B	Molybdenum	0.00089J	mg/L	0.010	09/15/22 21:01	
M 2540C-2015	Total Dissolved Solids	148	mg/L	25.0	09/06/22 14:51	
PA 300.0 Rev 2.1 1993	Chloride	3.5	mg/L	1.0	09/08/22 03:44	
PA 300.0 Rev 2.1 1993	Fluoride	0.085J	mg/L	0.10	09/08/22 03:44	
EPA 300.0 Rev 2.1 1993	Sulfate	5.7	mg/L	1.0	09/08/22 03:44	
2623226007	YGWA-21I					
	Performed by	Customer			08/31/22 16:00	
	pН	6.58	Std. Units		08/31/22 16:00	
PA 6010D	Calcium	7.3	mg/L	1.0	09/14/22 18:58	
PA 6020B	Antimony	0.0046	mg/L	0.0030	09/15/22 21:19	
PA 6020B	Arsenic	0.0022J	mg/L	0.0050	09/15/22 21:19	
PA 6020B	Barium	0.0085	mg/L	0.0050	09/15/22 21:19	
PA 6020B	Boron	0.012J	mg/L	0.040	09/15/22 21:19	
PA 6020B	Cobalt	0.0066	mg/L	0.0050	09/15/22 21:19	
PA 6020B	Lithium	0.0079J	mg/L	0.030	09/15/22 21:19	
SM 2540C-2015	Total Dissolved Solids	122	mg/L	25.0	09/02/22 11:12	
EPA 300.0 Rev 2.1 1993	Chloride	2.4	mg/L	1.0	09/08/22 03:58	
PA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/08/22 03:58	
EPA 300.0 Rev 2.1 1993	Sulfate	3.2	mg/L	1.0	09/08/22 03:58	
2623226008	YGWA-1D					
	Performed by	Customer			08/31/22 16:01	
	pН	7.2	Std. Units		08/31/22 16:01	
PA 6010D	Calcium	14.9	mg/L	1.0	09/14/22 19:12	
PA 6020B	Barium	0.0066	mg/L	0.0050	09/15/22 21:25	
PA 6020B	Chromium	0.0011J	mg/L	0.0050		
PA 6020B	Lithium	0.013J	mg/L	0.030	09/15/22 21:25	
	Molybdenum	0.0094J	mg/L	0.010	09/15/22 21:25	
				0.010	,, 0	
PA 6020B	•		_	25.0	09/02/22 11:12	
EPA 6020B SM 2540C-2015 EPA 300.0 Rev 2.1 1993	Total Dissolved Solids Chloride	116 1.3	mg/L mg/L	25.0 1.0	09/02/22 11:12 09/08/22 04:12	



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifier
IVIETIOU			Offics	- Report Limit	- Allalyzeu	Qualifier
92623226008	YGWA-1D					
EPA 300.0 Rev 2.1 1993	Sulfate	10.2	mg/L	1.0	09/08/22 04:12	
2623226009	YGWA-2I					
	Performed by	Customer			08/31/22 16:01	
	рН	7.04	Std. Units		08/31/22 16:01	
EPA 6010D	Calcium	25.4	mg/L	1.0	09/14/22 19:17	
EPA 6020B	Arsenic	0.0027J	mg/L	0.0050	09/15/22 21:31	
EPA 6020B	Barium	0.0030J	mg/L	0.0050	09/15/22 21:31	
EPA 6020B	Lithium	0.0044J	mg/L	0.030	09/15/22 21:31	
EPA 6020B	Molybdenum	0.0068J	mg/L	0.010	09/15/22 21:31	
SM 2540C-2015	Total Dissolved Solids	153	mg/L	25.0	09/02/22 11:12	
EPA 300.0 Rev 2.1 1993	Chloride	1.2	mg/L	1.0	09/08/22 04:26	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/08/22 04:26	
EPA 300.0 Rev 2.1 1993	Sulfate	20.1	mg/L	1.0	09/08/22 04:26	
2623226010	YGWA-30I					
	Performed by	Customer			09/02/22 10:43	
	pH	5.87	Std. Units		09/02/22 10:43	
PA 6010D	Calcium	1.3	mg/L	1.0	09/14/22 19:22	
PA 6020B	Barium	0.0068	mg/L	0.0050	09/15/22 21:37	
PA 6020B	Cobalt	0.0040J	mg/L	0.0050	09/15/22 21:37	
PA 6020B	Lithium	0.0012J	mg/L	0.030	09/15/22 21:37	
SM 2540C-2015	Total Dissolved Solids	33.0	mg/L	25.0	09/05/22 13:00	D6
EPA 300.0 Rev 2.1 1993	Chloride	1.8	mg/L	1.0	09/08/22 17:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.060J	mg/L	0.10	09/08/22 17:05	
PA 300.0 Rev 2.1 1993	Sulfate	1.1	mg/L	1.0	09/08/22 17:05	
2623226011	YGWA-14S					
	Performed by	Customer			09/02/22 10:45	
	pH	5.15	Std. Units		09/02/22 10:45	
PA 6010D	Calcium	1.3	mg/L	1.0	09/14/22 19:27	
PA 6020B	Barium	0.0075	mg/L	0.0050	09/16/22 15:19	
PA 6020B	Beryllium	0.00020J	mg/L	0.00050	09/16/22 15:19	
PA 6020B	Boron	0.015J	mg/L	0.040	09/16/22 15:19	
M 2540C-2015	Total Dissolved Solids	51.0	mg/L	25.0	09/05/22 13:00	
PA 300.0 Rev 2.1 1993	Chloride	4.6	mg/L	1.0	09/08/22 17:47	
PA 300.0 Rev 2.1 1993	Fluoride	0.053J	mg/L	0.10	09/08/22 17:47	
EPA 300.0 Rev 2.1 1993	Sulfate	5.8	mg/L	1.0	09/08/22 17:47	
2623226012	YGWA-1L					
	Performed by	Customer			09/02/22 10:45	
	рH	5.64	Std. Units		09/02/22 10:45	
PA 6010D	Calcium	1.9	mg/L	1.0	09/14/22 19:31	
EPA 6020B	Barium	0.0074	mg/L	0.0050	09/16/22 15:25	
PA 6020B	Cobalt	0.00085J	mg/L	0.0050	09/16/22 15:25	
PA 6020B	Molybdenum	0.0055J	mg/L	0.010	09/16/22 15:25	
M 2540C-2015	Total Dissolved Solids	46.0	mg/L	25.0	09/05/22 13:00	
PA 300.0 Rev 2.1 1993	Chloride	1.5	mg/L	1.0	09/08/22 18:01	
PA 300.0 Rev 2.1 1993	Fluoride	0.065J	mg/L	0.10	09/08/22 18:01	

REPORT OF LABORATORY ANALYSIS

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Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92623226012	YGWA-1L					
EPA 300.0 Rev 2.1 1993	Sulfate	4.8	mg/L	1.0	09/08/22 18:01	
92623226013	YGWA-47					
	Performed by	Customer			09/02/22 10:45	
	рН	5.32	Std. Units		09/02/22 10:45	
EPA 6010D	Calcium	9.6	mg/L	1.0	09/14/22 19:36	
EPA 6020B	Barium	0.029	mg/L	0.0050	09/16/22 15:30	
EPA 6020B	Boron	0.0091J	mg/L	0.040	09/16/22 15:30	
EPA 6020B	Cobalt	0.00096J	mg/L	0.0050	09/16/22 15:30	
EPA 6020B	Lithium	0.0037J	mg/L	0.030	09/16/22 15:30	
SM 2540C-2015	Total Dissolved Solids	116	mg/L	25.0	09/05/22 13:00	
EPA 300.0 Rev 2.1 1993	Chloride	3.5	mg/L	1.0	09/08/22 18:15	
EPA 300.0 Rev 2.1 1993	Fluoride	0.065J	mg/L	0.10	09/08/22 18:15	
EPA 300.0 Rev 2.1 1993	Sulfate	48.0	mg/L	1.0	09/08/22 18:15	
2623226014	YGWA-4I					
	Performed by	Customer			09/02/22 10:46	
	pH	5.50	Std. Units		09/02/22 10:46	
EPA 6010D	Calcium	8.9	mg/L	1.0	09/14/22 19:41	
EPA 6020B	Barium	0.013	mg/L	0.0050	09/16/22 15:36	
EPA 6020B	Lithium	0.013J	mg/L	0.030	09/16/22 15:36	
SM 2540C-2015	Total Dissolved Solids	92.0	mg/L	25.0	09/05/22 13:01	
EPA 300.0 Rev 2.1 1993	Chloride	4.4	mg/L	1.0	09/08/22 18:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.061J	mg/L	0.10	09/08/22 18:29	
EPA 300.0 Rev 2.1 1993	Sulfate	8.0	mg/L	1.0	09/08/22 18:29	
2623226015	YGWA-20S					
	Performed by	Customer			09/02/22 10:46	
	pH	5.38	Std. Units		09/02/22 10:46	
EPA 6010D	Calcium	2.4	mg/L	1.0	09/14/22 19:46	
EPA 6020B	Barium	0.011	mg/L	0.0050	09/15/22 22:07	
SM 2540C-2015	Total Dissolved Solids	62.0	mg/L	25.0	09/05/22 13:01	
EPA 300.0 Rev 2.1 1993	Chloride	2.9	mg/L	1.0	09/08/22 18:43	
2623226016	YGWA-3I					
	Performed by	Customer			09/02/22 10:47	
	рH	7.49	Std. Units		09/02/22 10:47	
EPA 6010D	Calcium	23.5	mg/L	1.0	09/14/22 19:50	
EPA 6020B	Barium	0.0030J	mg/L	0.0050	09/15/22 22:12	
EPA 6020B	Lithium	0.022J	mg/L	0.030	09/16/22 15:48	
EPA 6020B	Molybdenum	0.0068J	mg/L	0.010	09/15/22 22:12	
SM 2540C-2015	Total Dissolved Solids	137	mg/L	25.0	09/05/22 13:01	
EPA 300.0 Rev 2.1 1993	Chloride	1.3	mg/L	1.0	09/08/22 19:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.13	mg/L	0.10	09/08/22 19:24	
EPA 300.0 Rev 2.1 1993	Sulfate	13.9	mg/L	1.0	09/08/22 19:24	
2623226017	YGWA-3D					
	Performed by	Customer			09/02/22 10:47	
	pH	7.65	Std. Units		09/02/22 10:47	

REPORT OF LABORATORY ANALYSIS

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Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92623226017	YGWA-3D					
EPA 6010D	Calcium	28.7	mg/L	1.0	09/14/22 20:05	
EPA 6020B	Arsenic	0.0028J	mg/L	0.0050	09/15/22 22:30	
EPA 6020B	Barium	0.0048J	mg/L	0.0050	09/15/22 22:30	
EPA 6020B	Lithium	0.021J	mg/L	0.030	09/15/22 22:30	
EPA 6020B	Molybdenum	0.011	mg/L	0.010	09/15/22 22:30	
SM 2540C-2015	Total Dissolved Solids	141	mg/L	25.0	09/05/22 13:01	
EPA 300.0 Rev 2.1 1993	Chloride	1.3	mg/L	1.0	09/08/22 19:38	
EPA 300.0 Rev 2.1 1993	Fluoride	0.42	mg/L	0.10	09/08/22 19:38	
EPA 300.0 Rev 2.1 1993	Sulfate	6.9	mg/L	1.0	09/08/22 19:38	
2623226018	YGWA-39					
	Performed by	Customer			09/02/22 10:47	
	pH	5.30	Std. Units		09/02/22 10:47	
EPA 6010D	Calcium	16.3	mg/L	1.0	09/14/22 20:09	
EPA 6020B	Arsenic	0.0029J	mg/L	0.0050	09/15/22 22:36	
EPA 6020B	Barium	0.035	mg/L	0.0050	09/15/22 22:36	
EPA 6020B	Boron	0.14	mg/L	0.040	09/15/22 22:36	
EPA 6020B	Cadmium	0.00044J	mg/L	0.00050	09/15/22 22:36	
EPA 6020B	Cobalt	0.00085J	mg/L	0.0050	09/15/22 22:36	
EPA 6020B	Lithium	0.0065J	mg/L	0.030	09/15/22 22:36	
EPA 6020B	Molybdenum	0.0036J	mg/L	0.010	09/15/22 22:36	
SM 2540C-2015	Total Dissolved Solids	242	mg/L	25.0	09/05/22 13:01	
EPA 300.0 Rev 2.1 1993	Chloride	6.7	mg/L	1.0	09/08/22 19:52	
EPA 300.0 Rev 2.1 1993	Fluoride	0.065J	mg/L	0.10	09/08/22 19:52	
EPA 300.0 Rev 2.1 1993	Sulfate	10.9	mg/L	1.0	09/08/22 19:52	
2623226019	YGWA-40					
	Performed by	Customer			09/02/22 10:47	
	рН	4.53	Std. Units		09/02/22 10:47	
EPA 6010D	Calcium	6.2	mg/L	1.0	09/14/22 20:14	
EPA 6020B	Barium	0.035	mg/L	0.0050	09/15/22 22:42	
EPA 6020B	Beryllium	0.00025J	mg/L	0.00050	09/15/22 22:42	
EPA 6020B	Boron	0.062	mg/L	0.040	09/15/22 22:42	
EPA 7470A	Mercury	0.00064	mg/L	0.00020	09/16/22 12:13	
SM 2540C-2015	Total Dissolved Solids	92.0	mg/L	25.0	09/05/22 13:01	
EPA 300.0 Rev 2.1 1993	Chloride	6.3	mg/L	1.0	09/08/22 20:34	
EPA 300.0 Rev 2.1 1993	Fluoride	0.050J	mg/L	0.10	09/08/22 20:34	
EPA 300.0 Rev 2.1 1993	Sulfate	17.9	mg/L	1.0	09/08/22 20:34	



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-17S	Lab ID:	92623226001	Collecte	ed: 08/30/22	2 15:40	Received: 08/	/31/22 11:03 N	latrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte)					
Performed by	Customer				1		08/31/22 15:58	3	
рН	4.68	Std. Units			1		08/31/22 15:58	3	
6010D ATL ICP	Analytical	Method: EPA	6010D Pre	paration Met	hod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Calcium	3.0	mg/L	1.0	0.12	1	09/12/22 16:20	09/12/22 21:17	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA	6020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Antimony	ND	mg/L	0.0030	0.00078	1	09/12/22 18:08	09/13/22 20:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/12/22 18:08	09/13/22 20:15	7440-38-2	
Barium	0.017	mg/L	0.0050	0.00067	1	09/12/22 18:08	09/13/22 20:15	7440-39-3	
Beryllium	0.00010J	mg/L	0.00050	0.000054	1	09/12/22 18:08	09/13/22 20:15	7440-41-7	
Boron	0.013J	mg/L	0.040	0.0086	1	09/12/22 18:08	09/13/22 20:15	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/12/22 18:08	09/13/22 20:15	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/12/22 18:08	09/13/22 20:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/12/22 18:08	09/13/22 20:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/12/22 18:08	09/13/22 20:15	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/12/22 18:08	09/13/22 20:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/12/22 18:08	09/13/22 20:15	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/12/22 18:08	09/13/22 20:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/12/22 18:08	09/13/22 20:15	7440-28-0	
7470 Mercury	Analytical	Method: EPA	7470A Pre	paration Met	hod: EF	A 7470A			
•	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:06	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015	;					
	Pace Ana	lytical Services	- Peachtre	e Corners, C	€A				
Total Dissolved Solids	81.0	mg/L	25.0	10.0	1		09/02/22 11:11		
300.0 IC Anions 28 Days	Analytical	Method: EPA	300.0 Rev 2	2.1 1993					
	Pace Ana	lytical Services	- Asheville						
Chloride	12.0	mg/L	1.0	0.60	1		09/08/22 01:38	3 16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/08/22 01:38		
Sulfate	4.7	mg/L	1.0	0.50	1		09/08/22 01:38		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-18S	Lab ID:	92623226002	Collecte	ed: 08/30/22	2 10:10	Received: 08/	/31/22 11:03 N	latrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte)					
Performed by	Customer				1		08/31/22 15:58	3	
pH	5.18	Std. Units			1		08/31/22 15:58	3	
6010D ATL ICP	Analytical	Method: EPA 6	010D Pre	paration Met	hod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Calcium	0.77J	mg/L	1.0	0.12	1	09/12/22 16:20	09/12/22 21:36	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/16/22 15:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 20:19	7440-38-2	
Barium	0.012	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/16/22 15:01	7440-39-3	
Beryllium	0.000082J	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/15/22 20:19	7440-41-7	
Boron	0.014J	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 20:19	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 20:19	7440-43-9	
Chromium	0.0015J	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/15/22 20:19	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 20:19	7440-48-4	
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 20:19	7439-92-1	
Lithium	0.0014J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 20:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29	09/16/22 15:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 20:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 20:19	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Pre	paration Met	hod: EF	A 7470A			
•	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:09	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015	;					
	Pace Ana	lytical Services	- Peachtre	e Corners, C	€A				
Total Dissolved Solids	52.0	mg/L	25.0	10.0	1		09/02/22 11:11		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	300.0 Rev 2	2.1 1993					
•	Pace Ana	lytical Services	- Asheville	:					
Chloride	7.0	mg/L	1.0	0.60	1		09/08/22 01:52	2 16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/08/22 01:52		
Sulfate	1.3	mg/L	1.0	0.50	1		09/08/22 01:52		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-18I	Lab ID:	92623226003	Collecte	ed: 08/30/22	2 13:35	Received: 08/	/31/22 11:03 N	latrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte)					
Performed by	Customer				1		08/31/22 15:59)	
рН	5.82	Std. Units			1		08/31/22 15:59)	
6010D ATL ICP	Analytical	Method: EPA 6	010D Pre	paration Met	hod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	€A				
Calcium	5.7	mg/L	1.0	0.12	1	09/12/22 16:20	09/12/22 21:41	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	6020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	€A				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 20:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/16/22 15:07		
Barium	0.017	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 20:43	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/16/22 15:07	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/16/22 15:07		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 20:43		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/15/22 20:43		
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 20:43		
Lead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29			
Lithium	0.0036J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 20:43	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 20:43	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/16/22 15:07		
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 20:43		
7470 Mercury	Analytical	Method: EPA 7	7470A Pre	paration Met	hod: EF	A 7470A			
•	Pace Ana	lytical Services	- Peachtre	e Corners, C	S A				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:20	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015	;					
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Total Dissolved Solids	100	mg/L	25.0	10.0	1		09/02/22 11:11		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	300.0 Rev 2	2.1 1993					
•	Pace Ana	lytical Services	- Asheville	:					
Chloride	7.9	mg/L	1.0	0.60	1		09/08/22 02:06	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/08/22 02:06		
Sulfate	0.78J	mg/L	1.0	0.50	1		09/08/22 02:06		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: GWA-2	Lab ID:	92623226004	Collected	d: 08/30/22	10:05	Received: 08/	31/22 11:03 N	latrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte						
Performed by	Customer				1		08/31/22 15:59)	
ьН	5.39	Std. Units			1		08/31/22 15:59		
6010D ATL ICP	Analytical	Method: EPA 6	010D Prep	aration Met	hod: EF	PA 3010A			
		lytical Services							
Calcium	23.5	mg/L	1.0	0.12	1	09/12/22 16:20	09/12/22 21:55	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Prepa	aration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	βA				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 20:49	7440-36-0	
Arsenic	0.0024J	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 20:49	7440-38-2	
Barium	0.031	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 20:49		
Beryllium	ND	mg/L		0.000054	1	09/13/22 18:29	09/15/22 20:49		
Boron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 20:49		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 20:49		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/15/22 20:49		
Cobalt	0.075	mg/L	0.0050	0.00011	1	09/13/22 18:29	09/15/22 20:49		
Copper	0.073 ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 20:49		
ead.	ND ND	mg/L	0.0030	0.0010	1	09/13/22 18:29	09/15/22 20:49		
ithium	0.0025J	-	0.030	0.00039		09/13/22 18:29	09/15/22 20:49		
		mg/L			1				
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 20:49		
Nickel	0.015	mg/L	0.0050	0.00071	1	09/13/22 18:29	09/15/22 20:49		
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 20:49		
Silver	ND	mg/L	0.0050	0.00044	1	09/13/22 18:29	09/15/22 20:49		
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 20:49		_
/anadium	0.0026J	mg/L	0.010	0.0019	1	09/13/22 18:29	09/15/22 20:49		В
Zinc	0.011	mg/L	0.010	0.0070	1	09/13/22 18:29	09/15/22 20:49	7440-66-6	
7470 Mercury	Analytical	Method: EPA 7	470A Prepa	aration Met	nod: EF	A 7470A			
	Pace Ana	lytical Services	- Peachtree	Corners, C	βA				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:23	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
	Pace Ana	lytical Services	- Peachtree	Corners, G	βA				
Total Dissolved Solids	244	mg/L	25.0	10.0	1		09/02/22 11:12	!	
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	00.0 Rev 2.	1 1993					
·	Pace Ana	lytical Services	- Asheville						
Chloride	6.3	mg/L	1.0	0.60	1		09/08/22 02:48	3 16887-00-6	
Fluoride	0.086J	mg/L	0.10	0.050	1		09/08/22 02:48		
Sulfate	101	mg/L	2.0	1.0	2		09/08/22 07:36		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-5I	Lab ID:	92623226005	Collecte	d: 08/30/22	2 10:52	Received: 08/	31/22 11:03 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
								_	
Field Data	Analytical								
	Pace Ana	lytical Services	 Charlotte 						
Performed by	Customer				1		08/31/22 16:00		
ЭН	5.00	Std. Units			1		08/31/22 16:00		
6010D ATL ICP	Analytical	Method: EPA 6	010D Prei	paration Met	hod: EF	PA 3010A			
	•	lytical Services							
Calcium	2.5	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 18:34	7440-70-2	M1
		Ü							
6020 MET ICPMS	•	Method: EPA 6				'A 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	iΑ				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 20:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 20:55	7440-38-2	
Barium	0.017	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 20:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/15/22 20:55	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 20:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 20:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/16/22 15:13	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/16/22 15:13	7440-48-4	
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 20:55	7439-92-1	
ithium	0.0035J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 20:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 20:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 20:55	7782-49-2	
- Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 20:55	7440-28-0	
470 Mercury	Analytical	Method: EPA 7	470A Pred	paration Met	hod: EF	'A 7470A			
,	•	lytical Services	•						
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:31	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
10400 Total Dissolved Collas	•	lytical Services		e Corners. 0	SA.				
Total Dissolved Solids	86.0	mg/L	25.0	10.0	1		09/02/22 11:12		
		Ü			-				
300.0 IC Anions 28 Days	•	Method: EPA 3		.1 1993					
	Pace Ana	lytical Services	- ASNEVIIIE						
Chloride	4.4	mg/L	1.0	0.60	1		09/08/22 03:02	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/08/22 03:02	16984-48-8	
Sulfate	2.4	mg/L	1.0	0.50	1		09/08/22 03:02	14808-79-8	



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-5D	Lab ID:	92623226006	Collecte	ed: 08/30/22	2 12:05	Received: 08/	31/22 11:03 N	Matrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte	;					
Performed by	Customer				1		08/31/22 16:0	0	
рН	7.40	Std. Units			1		08/31/22 16:0		
6010D ATL ICP	Analytical	Method: EPA 6	010D Pre	paration Met	hod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Calcium	24.8	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 18:5	3 7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 21:0	1 7440-36-0	
Arsenic	0.0031J	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 21:0		
Barium	0.0079	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 21:0		
Beryllium	ND	mg/L	0.00050	0.000054	1	09/13/22 18:29			
Boron	0.0098J	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 21:0		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 21:0		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29			
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 21:0	1 7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 21:0	1 7439-92-1	
Lithium	0.0068J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 21:0	1 7439-93-2	
Molybdenum	0.00089J	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 21:0	1 7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 21:0	1 7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 21:0	1 7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Prej	paration Met	hod: EF	A 7470A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:3	3 7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Total Dissolved Solids	148	mg/L	25.0	10.0	1		09/06/22 14:5	1	
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	00.0 Rev 2	2.1 1993					
	Pace Ana	lytical Services	- Asheville						
Chloride	3.5	mg/L	1.0	0.60	1		09/08/22 03:4	4 16887-00-6	
Fluoride	0.085J	mg/L	0.10	0.050	1			4 16984-48-8	
Sulfate	5.7	mg/L	1.0	0.50	1		09/08/22 03:4		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-21I	Lab ID:	92623226007	Collecte	d: 08/30/2	2 14:30	Received: 08/	/31/22 11:03 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Farameters	– Results –			IVIDL		- Frepareu	- Analyzeu		— Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte						
Performed by	Customer				1		08/31/22 16:00		
Н	6.58	Std. Units			1		08/31/22 16:00		
6010D ATL ICP	Analytical	Method: EPA 6	010D Pre	paration Me	thod: EF	PA 3010A			
	•	lytical Services							
Calcium	7.3	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 18:58	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	:020B Prer	naration Met	hod: FF	PA 3005A			
,020 MET 101 M0	•	lytical Services				5000, 1			
Antimony	0.0046	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 21:19	7440.26.0	
Antimony Arsenic	0.0046 0.0022J	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 21:19		
Barium	0.00225	mg/L	0.0050	0.0022	1	09/13/22 18:29			
Beryllium	ND	mg/L	0.0050	0.00007	1		09/15/22 21:19		
Boron	0.012J	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 21:19		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29			
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29			
Cobalt	0.0066	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 21:19		
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29			
Lithium	0.0079J	mg/L	0.030	0.00073	1	09/13/22 18:29			
Nolybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29			
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 21:19		
- Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29			
7470 Mercury	Analytical	Method: EPA 7	470A Prep	aration Met	hod: EF	PA 7470A			
•	•	lytical Services							
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:36	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
	•	lytical Services		e Corners, (3A				
Total Dissolved Solids	122	mg/L	25.0	10.0	1		09/02/22 11:12		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	00.0 Rev 2	.1 1993					
•	Pace Ana	lytical Services	- Asheville						
Chloride	2.4	mg/L	1.0	0.60	1		09/08/22 03:58	16887-00-6	
Fluoride	0.10	mg/L	0.10	0.050	1		09/08/22 03:58		
Sulfate	3.2	mg/L	1.0	0.50	1		09/08/22 03:58		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-1D	Lab ID:	92623226008	Collecte	d: 08/30/22	2 13:50	Received: 08/	31/22 11:03 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical Pace Anal	Method: lytical Services	- Charlotte						
Performed by	Customer				1		08/31/22 16:01		
рН	7.2	Std. Units			1		08/31/22 16:01		
6010D ATL ICP	•	Method: EPA 6				PA 3010A			
Calcium	14.9	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:12	7440-70-2	
6020 MET ICOME		Ü			had: EF	0A 200E A			
6020 MET ICPMS	•	Method: EPA 6 lytical Services				A 3005A			
A				•		00/40/00 40 00	00/45/00 04 05	7440.00.0	
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 21:25		
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 21:25		
Barium	0.0066	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 21:25		
Beryllium	ND	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/15/22 21:25		
3oron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 21:25		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 21:25		
Chromium	0.0011J	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/15/22 21:25		
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 21:25		
Lead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 21:25		
Lithium	0.013J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 21:25		
Molybdenum	0.0094J	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 21:25		
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 21:25		
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 21:25	7440-28-0	
7470 Mercury	•	Method: EPA 7 lytical Services	-			PA 7470A			
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:39	7439-97-6	
2540C Total Dissolved Solids	•	Method: SM 25 lytical Services		e Corners, C	ΘA				
Total Dissolved Solids	116	mg/L	25.0	10.0	1		09/02/22 11:12		
300.0 IC Anions 28 Days	•	Method: EPA 3 lytical Services		1 1993					
Chloride	1.3	mg/L	1.0	0.60	1		09/08/22 04:12	16887-00-6	
Fluoride	0.093J	mg/L	0.10	0.050	1		09/08/22 04:12		
Sulfate	10.2	mg/L	1.0	0.050	1		09/08/22 04:12		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-2I	Lab ID:	92623226009	Collecte	ed: 08/30/22	2 10:00	Received: 08/	31/22 11:03 M	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte)					
Performed by	Customer				1		08/31/22 16:01		
рН	7.04	Std. Units			1		08/31/22 16:01		
6010D ATL ICP	Analytical	Method: EPA 6	010D Pre	paration Met	hod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Calcium	25.4	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:17	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	6020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 21:31	7440-36-0	
Arsenic	0.0027J	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 21:31		
Barium	0.0030J	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 21:31	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/15/22 21:31	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 21:31		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 21:31		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/15/22 21:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 21:31	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 21:31	7439-92-1	
Lithium	0.0044J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 21:31	7439-93-2	
Molybdenum	0.0068J	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 21:31	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 21:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 21:31	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	7470A Pre	paration Met	hod: EF	A 7470A			
·	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:41	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015	;					
	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Total Dissolved Solids	153	mg/L	25.0	10.0	1		09/02/22 11:12		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	300.0 Rev 2	2.1 1993					
•	Pace Ana	lytical Services	- Asheville	:					
Chloride	1.2	mg/L	1.0	0.60	1		09/08/22 04:26	16887-00-6	
Fluoride	0.12	mg/L	0.10	0.050	1		09/08/22 04:26		
Sulfate	20.1	mg/L	1.0	0.50	1		09/08/22 04:26		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-30I	Lab ID:	92623226010	Collecte	ed: 08/31/22	2 11:30	Received: 09/	01/22 09:05 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical Pace Ana	Method: lytical Services	- Charlotte						
Performed by pH	Customer 5.87	Std. Units			1 1		09/02/22 10:43 09/02/22 10:43		
pr 1					•		00/02/22 10.40		
6010D ATL ICP	Analytical	Method: EPA 6	010D Pre	paration Met	hod: EF	PA 3010A			
	Pace Ana	lytical Services	 Peachtre 	e Corners, C	βA				
Calcium	1.3	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:22	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 21:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00070	1	09/13/22 18:29	09/15/22 21:37		
Barium	0.0068	mg/L	0.0050	0.00022	1	09/13/22 18:29			
Beryllium	ND	mg/L	0.00050	0.000054	1		09/15/22 21:37		
Boron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 21:37		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 21:37		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29			
Cobalt	0.0040J	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 21:37		
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29			
_ithium	0.0012J	mg/L	0.030	0.00073	1	09/13/22 18:29		7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29			
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 21:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 21:37	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Prei	paration Met	hod: EF	PA 7470A			
	•	lytical Services							
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:44	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
	Pace Ana	lytical Services	- Peachtre	e Corners, C	§A				
Total Dissolved Solids	33.0	mg/L	25.0	10.0	1		09/05/22 13:00		D6
300.0 IC Anions 28 Days	•	Method: EPA 3 lytical Services							
Chloride	1.8	mg/L	1.0	0.60	1		09/08/22 17:05	16887-00-6	
Fluoride	0.060J	mg/L	0.10	0.050	1		09/08/22 17:05		
Sulfate	1.1	mg/L	1.0	0.50	1		09/08/22 17:05		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-14S	Lab ID:	92623226011	Collecte	d: 08/31/22	2 14:15	Received: 09/	01/22 09:05 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical Pace Ana	Method: lytical Services	- Charlotte						
Performed by pH	Customer 5.15	Std. Units			1 1		09/02/22 10:45 09/02/22 10:45		
6010D ATL ICP	Analytical	Method: EPA 6	010D Prer	naration Met	hod: FF	PA 3010A			
OUTOD ATE IOI	•	lytical Services				71001071			
Calcium	1.3	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:27	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Prep	aration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	3A				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/16/22 15:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 21:43	7440-38-2	
Barium	0.0075	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/16/22 15:19	7440-39-3	
Beryllium	0.00020J	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/16/22 15:19	7440-41-7	
Boron	0.015J	mg/L	0.040	0.0086	1	09/13/22 18:29	09/16/22 15:19		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 21:43		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/16/22 15:19	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/16/22 15:19	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 21:43	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/13/22 18:29	09/16/22 15:19		
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29	09/16/22 15:19	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 21:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 21:43	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	7470A Prep	aration Met	hod: EF	PA 7470A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	3A				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:46	7439-97-6	
2540C Total Dissolved Solids	•	Method: SM 29 lytical Services		e Corners, C	ΘA				
Total Dissolved Solids	51.0	mg/L	25.0	10.0	1		09/05/22 13:00		
300.0 IC Anions 28 Days	•	Method: EPA 3 lytical Services		.1 1993					
Chloride	4.6	mg/L	1.0	0.60	1		09/08/22 17:47	16887-00-6	
Fluoride	0.053J	mg/L	0.10	0.050	1		09/08/22 17:47		
Sulfate	5.8	mg/L	1.0	0.50	1		09/08/22 17:47		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-1L	Lab ID:	92623226012	Collecte	d: 08/31/22	2 09:10	Received: 09/	01/22 09:05 N	Matrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte						
Performed by	Customer				1		09/02/22 10:4	5	
рН	5.64	Std. Units			1		09/02/22 10:4	5	
6010D ATL ICP	Analytical	Method: EPA 6	010D Prep	aration Met	thod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtree	e Corners, C	βA				
Calcium	1.9	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:3	1 7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	6020B Prep	aration Met	hod: EF	A 3005A			
	Pace Ana	lytical Services	- Peachtree	e Corners, C	βA				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/16/22 15:2	5 7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/16/22 15:2	5 7440-38-2	
Barium	0.0074	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/16/22 15:2	5 7440-39-3	
Beryllium	ND	mg/L	0.0025	0.00027	5	09/13/22 18:29	09/17/22 03:0	8 7440-41-7	D3
Boron	ND	mg/L	0.20	0.043	5	09/13/22 18:29	09/17/22 03:0	8 7440-42-8	D3
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 21:4	9 7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/16/22 15:2	5 7440-47-3	
Cobalt	0.00085J	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/16/22 15:2	5 7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 21:4	9 7439-92-1	
Lithium	ND	mg/L	0.15	0.0036	5	09/13/22 18:29	09/17/22 03:0	8 7439-93-2	
Molybdenum	0.0055J	mg/L	0.010	0.00074	1	09/13/22 18:29	09/16/22 15:2	5 7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/16/22 15:2	5 7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 21:4	9 7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	7470A Prep	aration Met	hod: EF	A 7470A			
	Pace Ana	lytical Services	- Peachtree	e Corners, C	3A				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:4	9 7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015						
	Pace Ana	lytical Services	- Peachtree	e Corners, C	3A				
Total Dissolved Solids	46.0	mg/L	25.0	10.0	1		09/05/22 13:0	0	
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	300.0 Rev 2	.1 1993					
	Pace Ana	lytical Services	- Asheville						
Chloride	1.5	mg/L	1.0	0.60	1		09/08/22 18:0	1 16887-00-6	
Fluoride	0.065J	mg/L	0.10	0.050	1		09/08/22 18:0		
Sulfate	4.8	mg/L	1.0	0.50	1		09/08/22 18:0		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-47	Lab ID:	92623226013	Collecte	ed: 08/31/22	2 09:15	Received: 09/	01/22 09:05 Ma	atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Anal	ytical Services	- Charlotte						
Performed by	Customer				1		09/02/22 10:45		
рН	5.32	Std. Units			1		09/02/22 10:45		
6010D ATL ICP	Analytical	Method: EPA	6010D Pre	paration Met	hod: Ef	PA 3010A			
	Pace Anal	ytical Services	- Peachtre	e Corners, C	S A				
Calcium	9.6	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:36	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA	6020B Prej	paration Met	hod: EF	PA 3005A			
	Pace Anal	ytical Services	- Peachtre	e Corners, C	S A				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/16/22 15:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/16/22 15:30	7440-38-2	
Barium	0.029	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/16/22 15:30		
Beryllium	ND	mg/L	0.00050	0.000054	1		09/16/22 15:30	7440-41-7	
Boron	0.0091J	mg/L	0.040	0.0086	1	09/13/22 18:29	09/16/22 15:30		
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 21:55		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29			
Cobalt	0.00096J	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/16/22 15:30	-	
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29			
Lithium	0.0037J	mg/L	0.030	0.00073	1	09/13/22 18:29			
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29			
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/16/22 15:30		
Thallium	ND	mg/L	0.0010	0.00018	1		09/15/22 21:55		
7470 Mercury	Analytical	Method: EPA	7470A Prei	paration Met	hod: EF	PA 7470A			
•	•	ytical Services							
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 11:52	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015						
	•	ytical Services			SA.				
Total Dissolved Solids	116	mg/L	25.0	10.0	1		09/05/22 13:00		
300.0 IC Anions 28 Days	Analytical	Method: EPA	300.0 Rev 2	2.1 1993					
-	Pace Anal	ytical Services	- Asheville						
Chloride	3.5	mg/L	1.0	0.60	1		09/08/22 18:15	16887-00-6	
Fluoride	0.065J	mg/L	0.10	0.050	1		09/08/22 18:15	16984-48-8	
Sulfate	48.0	mg/L	1.0	0.50	1		09/08/22 18:15		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-4I	Lab ID:	92623226014	Collecte	ed: 08/31/22	2 15:37	Received: 09/	/01/22 09:05 M	atrix: Water	
_			Report						_
Parameters	Results -	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte)					
Performed by	Customer				1		09/02/22 10:46		
рН	5.50	Std. Units			1		09/02/22 10:46		
6010D ATL ICP	Analytical	Method: EPA	6010D Pre	paration Met	hod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	€A				
Calcium	8.9	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:41	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA	6020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/16/22 15:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/16/22 15:36	7440-38-2	
Barium	0.013	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/16/22 15:36	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/16/22 15:36	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/16/22 15:36	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 22:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/16/22 15:36	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/16/22 15:36	7440-48-4	
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 22:01	7439-92-1	
_ithium	0.013J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/16/22 15:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29	09/16/22 15:36	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/16/22 15:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 22:01	7440-28-0	
7470 Mercury	Analytical	Method: EPA	7470A Pre	paration Met	hod: EF	A 7470A			
•	-	lytical Services							
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 12:00	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015						
	Pace Ana	lytical Services	- Peachtre	e Corners, C	§A				
Total Dissolved Solids	92.0	mg/L	25.0	10.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	Analytical	Method: EPA	300.0 Rev 2	2.1 1993					
	Pace Ana	lytical Services	- Asheville						
Chloride	4.4	mg/L	1.0	0.60	1		09/08/22 18:29	16887-00-6	
Fluoride	0.061J	mg/L	0.10	0.050	1		09/08/22 18:29		
Sulfate	8.0	mg/L	1.0	0.50	1		09/08/22 18:29		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-20S	Lab ID:	92623226015	Collecte	d: 08/31/2	2 12:57	Received: 09/	01/22 09:05 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical Pace Ana	Method: lytical Services	- Charlotte						
Performed by	Customer				1		09/02/22 10:46		
ЭН	5.38	Std. Units			1		09/02/22 10:46		
6010D ATL ICP	Analytical	Method: EPA 6	010D Prep	aration Me	thod: Ef	PA 3010A			
	•	lytical Services	•						
Calcium	2.4	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:46	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Pren	aration Me	thod: E	24 30054			
JUZU IVIET TUFTVIJ	•	lytical Services	•			A 3000A			
•				•					
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/16/22 15:42		
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/16/22 15:42		
Barium	0.011	mg/L	0.0050	0.00067	1	09/13/22 18:29			
Beryllium	ND	mg/L	0.0025	0.00027	5		09/17/22 03:14		D3
Boron	ND	mg/L	0.20	0.043	5	09/13/22 18:29	09/17/22 03:14		D3
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29			
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29			
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/16/22 15:42		
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29			
₋ithium	ND	mg/L	0.030	0.00073	1	09/13/22 18:29			
Molybdenum	ND	mg/L	0.010	0.00074	1	09/13/22 18:29			
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/16/22 15:42		
Γhallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 22:07	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Prep	aration Met	thod: EF	PA 7470A			
	Pace Ana	lytical Services	- Peachtree	Corners, 0	GΑ				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 12:02	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
	•	lytical Services		e Corners, 0	GΑ				
Total Dissolved Solids	62.0	mg/L	25.0	10.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	00.0 Rev 2	.1 1993					
	Pace Ana	lytical Services	- Asheville						
Chloride	2.9	mg/L	1.0	0.60	1		09/08/22 18:43	16887-00-6	
-luoride	ND	mg/L	0.10	0.050	1		09/08/22 18:43		
Sulfate	ND	mg/L	1.0	0.50	1		09/08/22 18:43		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-3I	Lab ID:	92623226016	Collecte	ed: 08/31/22	2 10:54	Received: 09/	01/22 09:05 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
i didiffeters						- Trepared	- Analyzeu	- 	— Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte						
Performed by	Customer				1		09/02/22 10:47		
H	7.49	Std. Units			1		09/02/22 10:47		
6010D ATL ICP	Analytical	Method: EPA 6	010D Pre	paration Met	hod: FF	PA 3010A			
OTOD ATE IOI	•	lytical Services	'			7.00107.			
Calcium	23.5	•	1.0	0.12		00/14/00 10:55	09/14/22 19:50	7440 70 0	
Saicium	23.5	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 19:50	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Prep	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	SA.				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 22:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 22:12	7440-38-2	
Barium	0.0030J	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 22:12	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/16/22 15:48	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/16/22 15:48	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 22:12		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/15/22 22:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 22:12	7440-48-4	
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 22:12	7439-92-1	
Lithium	0.022J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/16/22 15:48	7439-93-2	
Molybdenum	0.0068J	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 22:12	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 22:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 22:12	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Prei	paration Met	hod: EF	PA 7470A			
,	•	lytical Services				-			
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 12:05	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
10 Total Bisserved Collas	•	lytical Services			AF.				
Fotal Dissolved Solids	137	mg/L	25.0	10.0	1		09/05/22 13:01		
		Ü			•		00/00/22 10.01		
300.0 IC Anions 28 Days	•	Method: EPA 3							
	Pace Ana	lytical Services	- Asheville						
Chloride	1.3	mg/L	1.0	0.60	1		09/08/22 19:24	16887-00-6	
-luoride	0.13	mg/L	0.10	0.050	1		09/08/22 19:24		
Sulfate	13.9	mg/L	1.0	0.50	1		09/08/22 19:24		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-3D	Lab ID:	92623226017	Collecte	ed: 08/31/22	2 09:30	Received: 09/	01/22 09:05 Ma	atrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical Pace Ana	Method: lytical Services	- Charlotte						
Performed by bH	Customer 7.65	Std. Units			1 1		09/02/22 10:47 09/02/22 10:47		
			040D D			24.00404			
6010D ATL ICP	•	Method: EPA 6				PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	έA				
Calcium	28.7	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 20:05	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	3A				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 22:30	7440-36-0	
Arsenic	0.0028J	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 22:30		
Barium	0.0048J	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 22:30	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1		09/15/22 22:30		
Boron	ND	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 22:30	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 22:30		
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/15/22 22:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 22:30	7440-48-4	
₋ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 22:30	7439-92-1	
_ithium	0.021J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 22:30	7439-93-2	
Molybdenum	0.011	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 22:30	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29	09/15/22 22:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29	09/15/22 22:30	7440-28-0	
7470 Mercury	Analytical	Method: EPA 7	470A Prei	paration Met	hod: EF	PA 7470A			
•	•	lytical Services							
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 12:07	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Total Dissolved Solids	141	mg/L	25.0	10.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	•	Method: EPA 3							
		lytical Services							
Chloride	1.3	mg/L	1.0	0.60	1		09/08/22 19:38		
Fluoride	0.42	mg/L	0.10	0.050	1		09/08/22 19:38		
Sulfate	6.9	mg/L	1.0	0.50	1		09/08/22 19:38	14808-79-8	



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-39	Lab ID:	92623226018	Collecte	ed: 08/31/22	2 13:50	Received: 09/	/01/22 09:05 N	//atrix: Water	
			Report						
Parameters	Results	Units	Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte	;					
Performed by	Customer				1		09/02/22 10:4	7	
рН	5.30	Std. Units			1		09/02/22 10:4		
6010D ATL ICP	Analytical	Method: EPA 6	010D Pre	paration Met	thod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	3A				
Calcium	16.3	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 20:0	9 7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	3A				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 22:30	6 7440-36-0	
Arsenic	0.0029J	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 22:30		
Barium	0.035	mg/L	0.0050	0.00067	1	09/13/22 18:29			
Beryllium	ND	mg/L	0.00050	0.000054	1	09/13/22 18:29			
Boron	0.14	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 22:3		
Cadmium	0.00044J	mg/L	0.00050	0.00011	1	09/13/22 18:29			
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29			
Cobalt	0.00085J	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 22:30	6 7440-48-4	
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29			
Lithium	0.0065J	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 22:30	6 7439-93-2	
Molybdenum	0.0036J	mg/L	0.010	0.00074	1	09/13/22 18:29	09/15/22 22:30	6 7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29			
Thallium	ND	mg/L	0.0010	0.00018	1	09/13/22 18:29			
7470 Mercury	Analytical	Method: EPA 7	470A Pre	paration Met	hod: EF	A 7470A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Mercury	ND	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 12:10	0 7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 25	540C-2015						
	Pace Ana	lytical Services	- Peachtre	e Corners, C	3A				
Total Dissolved Solids	242	mg/L	25.0	10.0	1		09/05/22 13:0	1	
300.0 IC Anions 28 Days	Analytical	Method: EPA 3	00.0 Rev 2	2.1 1993					
•	Pace Ana	lytical Services	- Asheville						
Chloride	6.7	mg/L	1.0	0.60	1		09/08/22 19:5	2 16887-00-6	
Fluoride	0.065J	mg/L	0.10	0.050	1		09/08/22 19:5		
Sulfate	10.9	mg/L	1.0	0.050	1		09/08/22 19:5		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Sample: YGWA-40	Lab ID:	92623226019	Collecte	ed: 08/31/22	2 16:40	Received: 09/	/01/22 09:05 M	atrix: Water	
D	Danish	11-2-	Report	MDI	DE	Decreased	A a b a d	040 N=	0
Parameters	Results -	Units	Limit	MDL .	DF	Prepared	Analyzed	CAS No.	Qua
Field Data	Analytical	Method:							
	Pace Ana	lytical Services	- Charlotte)					
Performed by	Customer				1		09/02/22 10:47		
pΗ	4.53	Std. Units			1		09/02/22 10:47		
6010D ATL ICP	Analytical	Method: EPA 6	6010D Pre	paration Met	hod: EF	PA 3010A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	βA				
Calcium	6.2	mg/L	1.0	0.12	1	09/14/22 10:55	09/14/22 20:14	7440-70-2	
6020 MET ICPMS	Analytical	Method: EPA 6	6020B Pre	paration Met	hod: EF	PA 3005A			
	Pace Ana	lytical Services	- Peachtre	e Corners, C	€A				
Antimony	ND	mg/L	0.0030	0.00078	1	09/13/22 18:29	09/15/22 22:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	09/13/22 18:29	09/15/22 22:42	7440-38-2	
Barium	0.035	mg/L	0.0050	0.00067	1	09/13/22 18:29	09/15/22 22:42	7440-39-3	
Beryllium	0.00025J	mg/L	0.00050	0.000054	1	09/13/22 18:29	09/15/22 22:42	7440-41-7	
Boron	0.062	mg/L	0.040	0.0086	1	09/13/22 18:29	09/15/22 22:42	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	09/13/22 18:29	09/15/22 22:42	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	09/13/22 18:29	09/15/22 22:42	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	09/13/22 18:29	09/15/22 22:42	7440-48-4	
_ead	ND	mg/L	0.0010	0.00089	1	09/13/22 18:29	09/15/22 22:42	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	09/13/22 18:29	09/15/22 22:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1		09/15/22 22:42		
Selenium	ND	mg/L	0.0050	0.0014	1	09/13/22 18:29			
Thallium	ND	mg/L	0.0010	0.00018	1		09/15/22 22:42		
7470 Mercury	Analytical	Method: EPA	7470A Pre	paration Met	hod: EF	'A 7470A			
,	-	lytical Services							
Mercury	0.00064	mg/L	0.00020	0.00013	1	09/15/22 16:00	09/16/22 12:13	7439-97-6	
2540C Total Dissolved Solids	Analytical	Method: SM 2	540C-2015	;					
	Pace Ana	lytical Services	- Peachtre	e Corners, C	€A				
Total Dissolved Solids	92.0	mg/L	25.0	10.0	1		09/05/22 13:01		
300.0 IC Anions 28 Days	Analytical	Method: EPA	300.0 Rev 2	2.1 1993					
	Pace Ana	lytical Services	- Asheville	:					
Chloride	6.3	mg/L	1.0	0.60	1		09/08/22 20:34	16887-00-6	
Fluoride	0.050J	mg/L	0.10	0.050	1		09/08/22 20:34		
Sulfate	17.9	mg/L	1.0	0.50	1		09/08/22 20:34		



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

QC Batch: 722758 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623226001, 92623226002, 92623226003, 92623226004

METHOD BLANK: 3765944 Matrix: Water
Associated Lab Samples: 92623226001, 92623226002, 92623226003, 92623226004

Blank Reporting

 Parameter
 Units
 Result
 Limit
 MDL
 Analyzed
 Qualifiers

 mg/L
 ND
 1.0
 0.12
 09/12/22 21:07

Calcium mg/L ND 1.0 0.12 09/12/22 21:07

LABORATORY CONTROL SAMPLE: 3765945

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3765946 3765947

MSD MS 92623226001 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Result Result % Rec % Rec **RPD** RPD Qual Result Conc. Limits Calcium mg/L 3.0 4.0 4.1 96 107 75-125 3 20

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



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

QC Batch: Analysis Method: EPA 6010D 723071 QC Batch Method: **EPA 3010A** Analysis Description: 6010D ATL

> Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623226005, 92623226006, 92623226007, 92623226008, 92623226009, 92623226010, 92623226011,

92623226012, 92623226013, 92623226014, 92623226015, 92623226016, 92623226017, 92623226018,

92623226019

METHOD BLANK: 3767576 Matrix: Water

Associated Lab Samples: 92623226005, 92623226006, 92623226007, 92623226008, 92623226009, 92623226010, 92623226011,

92623226012, 92623226013, 92623226014, 92623226015, 92623226016, 92623226017, 92623226018, 92623226019 Blank Reporting Qualifiers MDL Parameter Units Result Limit Analyzed Calcium ND 1.0 0.12 09/14/22 18:24 mg/L LABORATORY CONTROL SAMPLE: 3767577 Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Calcium mg/L 1.0 101 80-120 MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3767578 3767579 MSD MS 92623226005 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual 20 M1 Calcium 2.5 3.4 85 75-125 mg/L 3.3 73

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.



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

QC Batch: 722711

QC Batch Method: EPA 3005A

Analysis Method: EPA 6020B Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623226001

METHOD BLANK: 3765581 Matrix: Water

Associated Lab Samples: 92623226001

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00086J	0.0030	0.00078	09/13/22 18:33	
Arsenic	mg/L	ND	0.0050	0.0022	09/13/22 18:33	
Barium	mg/L	ND	0.0050	0.00067	09/13/22 18:33	
Beryllium	mg/L	ND	0.00050	0.000054	09/13/22 18:33	
Boron	mg/L	ND	0.040	0.0086	09/13/22 18:33	
Cadmium	mg/L	ND	0.00050	0.00011	09/13/22 18:33	
Chromium	mg/L	ND	0.0050	0.0011	09/13/22 18:33	
Cobalt	mg/L	ND	0.0050	0.00039	09/13/22 18:33	
Lead	mg/L	ND	0.0010	0.00089	09/13/22 18:33	
Lithium	mg/L	ND	0.030	0.00073	09/13/22 18:33	
Molybdenum	mg/L	ND	0.010	0.00074	09/13/22 18:33	
Selenium	mg/L	ND	0.0050	0.0014	09/13/22 18:33	
Thallium	mg/L	ND	0.0010	0.00018	09/13/22 18:33	

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Antimony	mg/L	0.1	0.11	111	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
_ead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SP	IKE DUPLI	CATE: 3765	583		3765584							
			MS	MSD								
	9	92622406019	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Antimony	mg/L	ND ND	0.1	0.1	0.11	0.11	111	109	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	

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



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

MATRIX SPIKE & MATRIX	SPIKE DUPLI	CATE: 3765			3765584							
Parameter	(Units	92622406019 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.064	0.1	0.1	0.17	0.17	108	103	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20	
Boron	mg/L	0.18	1	1	1.2	1.2	101	99	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.099	98	99	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	1	20	
Cobalt	mg/L	0.0012J	0.1	0.1	0.099	0.099	98	97	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	2	20	
Lithium	mg/L	0.0013J	0.1	0.1	0.096	0.099	94	97	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	106	103	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.097	97	96	75-125	0	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20	

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



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

QC Batch: 723035 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020 MET

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623226002, 92623226003, 92623226004, 92623226005, 92623226006, 92623226007, 92623226008,

 $92623226019,\,92623226010,\,92623226011,\,92623226012,\,92623226013,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226015,\,92623226014,\,92623226014,\,92623226015,\,92623226014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,9262326014,\,92624014,\,926240140014,\,92624014,\,92624014,\,92624014,\,92624014,\,92624014,\,926240140$

92623226016, 92623226017, 92623226018, 92623226019

METHOD BLANK: 3767331 Matrix: Water

Associated Lab Samples: 92623226002, 92623226003, 92623226004, 92623226005, 92623226006, 92623226007, 92623226008,

92623226009, 92623226010, 92623226011, 92623226012, 92623226013, 92623226014, 92623226015,

92623226016, 92623226017, 92623226018, 92623226019

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND ND	0.0030	0.00078	09/15/22 20:07	
Arsenic	mg/L	ND	0.0050	0.0022	09/15/22 20:07	
Barium	mg/L	ND	0.0050	0.00067	09/15/22 20:07	
Beryllium	mg/L	ND	0.00050	0.000054	09/15/22 20:07	
Boron	mg/L	ND	0.040	0.0086	09/15/22 20:07	
Cadmium	mg/L	ND	0.00050	0.00011	09/15/22 20:07	
Chromium	mg/L	ND	0.0050	0.0011	09/15/22 20:07	
Cobalt	mg/L	ND	0.0050	0.00039	09/15/22 20:07	
Copper	mg/L	ND	0.0050	0.0010	09/15/22 20:07	
Lead	mg/L	ND	0.0010	0.00089	09/15/22 20:07	
Lithium	mg/L	ND	0.030	0.00073	09/15/22 20:07	
Molybdenum	mg/L	ND	0.010	0.00074	09/15/22 20:07	
Nickel	mg/L	ND	0.0050	0.00071	09/15/22 20:07	
Selenium	mg/L	ND	0.0050	0.0014	09/15/22 20:07	
Silver	mg/L	ND	0.0050	0.00044	09/15/22 20:07	
Thallium	mg/L	ND	0.0010	0.00018	09/15/22 20:07	
Vanadium	mg/L	0.0021J	0.010	0.0019	09/15/22 20:07	
Zinc	mg/L	ND	0.010	0.0070	09/15/22 20:07	

LABORATORY CONTROL SAMPLE:	3767332					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	0.98	98	80-120	
Cadmium	mg/L	0.1	0.095	95	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	
Copper	mg/L	0.1	0.095	95	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	0.096	96	80-120	
Nickel	mg/L	0.1	0.097	97	80-120	

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.



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

I APORATORY CONTROL SAMPLE: 3767332

LABORATORY CONTROL SAMPLE:	3767332	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Selenium	mg/L	0.1	0.094	94	80-120	
Silver	mg/L	0.1	0.094	94	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	
Vanadium	mg/L	0.1	0.10	105	80-120	
Zinc	mg/L	0.1	0.10	104	80-120	

MATRIX SPIKE & MATRIX S	PIKE DUPLI	CATE: 3767	333		3767334	,						
			MS	MSD								
	9	92623226002	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Antimony	mg/L	ND ND	0.1	0.1	0.093	0.10	92	100	75-125	8	20	
Arsenic	mg/L	ND	0.1	0.1	0.096	0.098	95	97	75-125	3	20	
Barium	mg/L	0.012	0.1	0.1	0.097	0.11	85	94	75-125	9	20	
Beryllium	mg/L	0.000082J	0.1	0.1	0.095	0.095	95	95	75-125	0	20	
Boron	mg/L	0.014J	1	1	0.96	0.98	94	96	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20	
Chromium	mg/L	0.0015J	0.1	0.1	0.097	0.096	95	94	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.094	0.093	94	93	75-125	1	20	
Copper	mg/L	ND	0.1	0.1	0.096	0.093	96	93	75-125	3	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.095	95	95	75-125	0	20	
Lithium	mg/L	0.0014J	0.1	0.1	0.097	0.10	96	98	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.087	0.094	87	94	75-125	8	20	
Nickel	mg/L	ND	0.1	0.1	0.096	0.093	96	93	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.090	0.093	90	93	75-125	3	20	
Silver	mg/L	ND	0.1	0.1	0.084	0.091	84	91	75-125	8	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.096	97	96	75-125	2	20	
Vanadium	mg/L	ND	0.1	0.1	0.10	0.10	99	99	75-125	0	20	
Zinc	mg/L	ND	0.1	0.1	0.10	0.10	104	102	75-125	1	20	

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



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

QC Batch: 723525 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623226001, 92623226002, 92623226003, 92623226004, 92623226005, 92623226006, 92623226007,

92623226008, 92623226009, 92623226010, 92623226011, 92623226012, 92623226013, 92623226014,

92623226015, 92623226016, 92623226017, 92623226018, 92623226019

METHOD BLANK: 3769763 Matrix: Water

Associated Lab Samples: 92623226001, 92623226002, 92623226003, 92623226004, 92623226005, 92623226006, 92623226007,

92623226008, 92623226009, 92623226010, 92623226011, 92623226012, 92623226013, 92623226014,

92623226015, 92623226016, 92623226017, 92623226018, 92623226019

ParameterUnitsBlank Reporting ResultReporting LimitMDLAnalyzedQualifiersMercurymg/LND0.000200.0001309/16/22 11:01

MSD

LABORATORY CONTROL SAMPLE: 3769764

Date: 09/21/2022 01:00 PM

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers Mercury mg/L 0.0025 0.0025 99 80-120

MS

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3769765 3769766

92623226002 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual Mercury ND 0.0025 0.0025 0.0024 0.0023 96 90 75-125 20 mg/L

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.



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

QC Batch: 721194 Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623226001, 92623226002, 92623226003, 92623226004, 92623226005, 92623226007, 92623226008,

92623226009

METHOD BLANK: 3757806 Matrix: Water

Associated Lab Samples: 92623226001, 92623226002, 92623226003, 92623226004, 92623226005, 92623226007, 92623226008,

92623226009

ParameterUnitsBlank Reporting ResultReporting LimitMDLAnalyzedQualifiersTotal Dissolved Solidsmg/LND25.010.009/02/22 11:11

LABORATORY CONTROL SAMPLE: 3757807

LCS LCS % Rec Spike Parameter Units Result % Rec Limits Qualifiers Conc. **Total Dissolved Solids** mg/L 400 381 95 80-120

SAMPLE DUPLICATE: 3757808

92623226001 Dup Max **RPD RPD** Parameter Units Result Result Qualifiers **Total Dissolved Solids** 81.0 78.0 4 25 mg/L

SAMPLE DUPLICATE: 3757809

Date: 09/21/2022 01:00 PM

92623294003 Dup Max RPD RPD Parameter Units Result Result Qualifiers **Total Dissolved Solids** mg/L 628 638 2 25

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



Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

QC Batch: 721455 Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623226010, 92623226011, 92623226012, 92623226013, 92623226014, 92623226015, 92623226016,

92623226017, 92623226018, 92623226019

METHOD BLANK: 3759030 Matrix: Water

Associated Lab Samples: 92623226010, 92623226011, 92623226012, 92623226013, 92623226014, 92623226015, 92623226016,

92623226017, 92623226018, 92623226019

ParameterUnitsBlank Reporting ResultReporting LimitMDLAnalyzedQualifiersTotal Dissolved Solidsmg/LND25.010.009/05/22 12:59

LABORATORY CONTROL SAMPLE: 3759031

LCS LCS % Rec Spike Parameter Units Result % Rec Limits Qualifiers Conc. **Total Dissolved Solids** mg/L 400 389 97 80-120

SAMPLE DUPLICATE: 3759032

92623226010 Dup Max **RPD RPD** Parameter Units Result Result Qualifiers 33.0 44.0 29 25 D6 **Total Dissolved Solids** mg/L

SAMPLE DUPLICATE: 3759033

Date: 09/21/2022 01:00 PM

ParameterUnits92623533001 ResultDup ResultRPDMax RPDQualifiersTotal Dissolved Solidsmg/L206204125

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.



QUALITY CONTROL DATA

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

QC Batch: 721563 Analysis Method: SM 2540C-2015

QC Batch Method: SM 2540C-2015 Analysis Description: 2540C Total Dissolved Solids

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92623226006

METHOD BLANK: 3759489 Matrix: Water

Associated Lab Samples: 92623226006

Blank Reporting
Parameter Units Result Limit MDL Analyzed Qualifiers

Total Dissolved Solids mg/L ND 25.0 10.0 09/06/22 14:51

LABORATORY CONTROL SAMPLE: 3759490

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units **Total Dissolved Solids** mg/L 387 97 80-120

SAMPLE DUPLICATE: 3759491

92623226006 Dup Max Parameter Units Result Result **RPD RPD** Qualifiers 148 **Total Dissolved Solids** mg/L 6 139 25

SAMPLE DUPLICATE: 3759492

Date: 09/21/2022 01:00 PM

92623533010 Dup Max RPD RPD Parameter Units Result Result Qualifiers 25 Total Dissolved Solids 128 7 mg/L 119

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.



QUALITY CONTROL DATA

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

QC Batch: 721661 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: 92623226001, 92623226002, 92623226003, 92623226004, 92623226005, 92623226006, 92623226007,

92623226008, 92623226009

METHOD BLANK: 3760039 Matrix: Water

Associated Lab Samples: 92623226001, 92623226002, 92623226003, 92623226004, 92623226005, 92623226006, 92623226007,

92623226008, 92623226009

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/07/22 22:22	
Fluoride	mg/L	ND	0.10	0.050	09/07/22 22:22	
Sulfate	mg/L	ND	1.0	0.50	09/07/22 22:22	

LABORATORY CONTROL SAMPLE:	3760040					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/L	50	49.9	100	90-110	
Fluoride	mg/L	2.5	2.3	91	90-110	
Sulfate	mg/L	50	49.6	99	90-110	

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3760	041		3760042							
			MS	MSD								
		92622406016	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	4.1	50	50	57.1	56.7	106	105	90-110	1	10	
Fluoride	mg/L	0.056J	2.5	2.5	2.4	2.4	93	93	90-110	0	10	
Sulfate	mg/L	47.3	50	50	98.1	99.8	101	105	90-110	2	10	

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3760	043		3760044							
			MS	MSD								
		92623226003	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	7.9	50	50	61.5	61.2	107	107	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.4	96	95	90-110	1	10	
Sulfate	mg/L	0.78J	50	50	54.0	53.6	106	106	90-110	1	10	

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



QUALITY CONTROL DATA

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

QC Batch: 722003 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: 92623226010, 92623226011, 92623226012, 92623226013, 92623226014, 92623226015, 92623226016,

92623226017, 92623226018, 92623226019

METHOD BLANK: 3761858 Matrix: Water

Associated Lab Samples: 92623226010, 92623226011, 92623226012, 92623226013, 92623226014, 92623226015, 92623226016,

92623226017, 92623226018, 92623226019

		Blank	Reporting			
Parameter	Units	Result	Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/08/22 14:59	
Fluoride	mg/L	ND	0.10	0.050	09/08/22 14:59	
Sulfate	mg/L	ND	1.0	0.50	09/08/22 14:59	

LABORATORY CONTROL SAMPLE:	3761859						
		Spike	LCS	LCS	% Rec		
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers	
Chloride	mg/L	50	49.4	99	90-110		
Fluoride	mg/L	2.5	2.7	109	90-110		
Sulfate	mg/L	50	49.9	100	90-110		

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3761	860		3761861							
			MS	MSD								
		92623832001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	47.2	50	50	98.7	98.6	103	103	90-110	0	10	
Fluoride	mg/L	6.9	2.5	2.5	8.5	8.4	62	60	90-110	1	10	M1
Sulfate	mg/L	833	50	50	878	879	91	93	90-110	0	10	

MATRIX SPIKE & MATRIX SP	IKE DUPL	ICATE: 3761	862		3761863							
			MS	MSD								
		92623226015	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Chloride	mg/L	2.9	50	50	55.6	56.1	105	106	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.5	96	97	90-110	1	10	
Sulfate	mg/L	ND	50	50	52.5	53.0	104	105	90-110	1	10	

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



QUALIFIERS

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

Date: 09/21/2022 01:00 PM

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
92623226001	YGWA-17S			_	
92623226002	YGWA-18S				
2623226003	YGWA-18I				
2623226004	GWA-2				
2623226005	YGWA-5I				
2623226006	YGWA-5D				
2623226007	YGWA-21I				
2623226008	YGWA-1D				
2623226009	YGWA-2I				
2623226010	YGWA-30I				
2623226011	YGWA-14S				
2623226012	YGWA-1L				
2623226013	YGWA-47				
2623226014	YGWA-4I				
2623226015	YGWA-20S				
2623226016	YGWA-3I				
2623226017	YGWA-3D				
2623226018	YGWA-39				
2623226019	YGWA-40				
2623226001	YGWA-17S	EPA 3010A	722758	EPA 6010D	722798
2623226002	YGWA-18S	EPA 3010A	722758	EPA 6010D	722798
2623226003	YGWA-18I	EPA 3010A	722758	EPA 6010D	722798
2623226004	GWA-2	EPA 3010A	722758	EPA 6010D	722798
2623226005	YGWA-5I	EPA 3010A	723071	EPA 6010D	723278
2623226006	YGWA-5D	EPA 3010A	723071	EPA 6010D	723278
2623226007	YGWA-21I	EPA 3010A	723071	EPA 6010D	723278
2623226008	YGWA-1D	EPA 3010A	723071	EPA 6010D	723278
2623226009	YGWA-2I	EPA 3010A	723071	EPA 6010D	723278
2623226010	YGWA-30I	EPA 3010A	723071	EPA 6010D	723278
2623226011	YGWA-14S	EPA 3010A	723071	EPA 6010D	723278
2623226012	YGWA-1L	EPA 3010A	723071	EPA 6010D	723278
2623226013	YGWA-47	EPA 3010A	723071	EPA 6010D	723278
2623226014	YGWA-4I	EPA 3010A	723071	EPA 6010D	723278
2623226015	YGWA-20S	EPA 3010A	723071	EPA 6010D	723278
2623226016	YGWA-3I	EPA 3010A	723071	EPA 6010D	723278
2623226017	YGWA-3D	EPA 3010A	723071	EPA 6010D	723278
2623226018	YGWA-39	EPA 3010A	723071	EPA 6010D	723278
2623226019	YGWA-40	EPA 3010A	723071	EPA 6010D	723278
2623226001	YGWA-17S	EPA 3005A	722711	EPA 6020B	722836
2623226002	YGWA-18S	EPA 3005A	723035	EPA 6020B	723160
2623226003	YGWA-18I	EPA 3005A	723035	EPA 6020B	723160
2623226004	GWA-2	EPA 3005A	723035	EPA 6020B	723160
2623226005	YGWA-5I	EPA 3005A	723035	EPA 6020B	723160
2623226006	YGWA-5D	EPA 3005A	723035	EPA 6020B	723160
2623226007	YGWA-21I	EPA 3005A	723035	EPA 6020B	723160
2623226008	YGWA-1D	EPA 3005A	723035	EPA 6020B	723160
2623226009	YGWA-2I	EPA 3005A	723035	EPA 6020B	723160



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

_ab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytic Batch 723160 723160 723160 723160 723160 723160 723160 723160 723160 723160 723143 723743
92623226010	YGWA-30I	EPA 3005A	723035	EPA 6020B	723160
2623226011	YGWA-14S	EPA 3005A	723035	EPA 6020B	
2623226012	YGWA-1L	EPA 3005A	723035	EPA 6020B	
2623226013	YGWA-47	EPA 3005A	723035	EPA 6020B	
2623226014	YGWA-4I	EPA 3005A	723035	EPA 6020B	
2623226015	YGWA-20S	EPA 3005A	723035	EPA 6020B	
2623226016	YGWA-3I	EPA 3005A	723035	EPA 6020B	
2623226017	YGWA-3D	EPA 3005A	723035	EPA 6020B	
2623226018	YGWA-39	EPA 3005A	723035	EPA 6020B	
2623226019	YGWA-40	EPA 3005A	723035	EPA 6020B	
2623226001	YGWA-17S	EPA 7470A	723525	EPA 7470A	723743
2623226002	YGWA-18S	EPA 7470A	723525	EPA 7470A	723743
2623226003	YGWA-18I	EPA 7470A	723525	EPA 7470A	723743
2623226004	GWA-2	EPA 7470A	723525	EPA 7470A	723743
2623226005	YGWA-5I	EPA 7470A	723525	EPA 7470A	723743
2623226006	YGWA-5D	EPA 7470A	723525	EPA 7470A	723743
2623226007	YGWA-21I	EPA 7470A	723525	EPA 7470A	723743
2623226008	YGWA-1D	EPA 7470A	723525	EPA 7470A	723743
2623226009	YGWA-2I	EPA 7470A	723525	EPA 7470A	723743
2623226010	YGWA-30I	EPA 7470A	723525	EPA 7470A	723743
2623226011	YGWA-14S	EPA 7470A	723525	EPA 7470A	723743
2623226012	YGWA-1L	EPA 7470A	723525	EPA 7470A	723743
2623226013	YGWA-47	EPA 7470A	723525	EPA 7470A	
2623226014	YGWA-4I	EPA 7470A	723525	EPA 7470A	
2623226015	YGWA-20S	EPA 7470A	723525	EPA 7470A	723743
2623226016	YGWA-3I	EPA 7470A	723525	EPA 7470A	
2623226017	YGWA-3D	EPA 7470A	723525	EPA 7470A	
2623226018	YGWA-39	EPA 7470A	723525	EPA 7470A	
2623226019	YGWA-40	EPA 7470A	723525	EPA 7470A	
2623226001	YGWA-17S	SM 2540C-2015	721194		
2623226002	YGWA-18S	SM 2540C-2015	721194		
2623226003	YGWA-18I	SM 2540C-2015	721194		
2623226004	GWA-2	SM 2540C-2015	721194		
2623226005	YGWA-5I	SM 2540C-2015	721194		
2623226006	YGWA-5D	SM 2540C-2015	721563		
2623226007	YGWA-21I	SM 2540C-2015	721194		
2623226008	YGWA-1D	SM 2540C-2015	721194		
2623226009	YGWA-2I	SM 2540C-2015	721194		
2623226010	YGWA-30I	SM 2540C-2015	721455		
2623226011	YGWA-14S	SM 2540C-2015	721455		
2623226012	YGWA-1L	SM 2540C-2015	721455		
2623226013	YGWA-47	SM 2540C-2015	721455		
2623226014	YGWA-4I	SM 2540C-2015	721455		
2623226015	YGWA-20S	SM 2540C-2015	721455		
2623226016	YGWA-3I	SM 2540C-2015	721455		
2623226017	YGWA-3D	SM 2540C-2015	721455		



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Pooled Upgradient

Pace Project No.: 92623226

Date: 09/21/2022 01:00 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92623226018	YGWA-39	SM 2540C-2015	721455		,
92623226019	YGWA-40	SM 2540C-2015	721455		
92623226001	YGWA-17S	EPA 300.0 Rev 2.1 1993	721661		
92623226002	YGWA-18S	EPA 300.0 Rev 2.1 1993	721661		
92623226003	YGWA-18I	EPA 300.0 Rev 2.1 1993	721661		
92623226004	GWA-2	EPA 300.0 Rev 2.1 1993	721661		
92623226005	YGWA-5I	EPA 300.0 Rev 2.1 1993	721661		
92623226006	YGWA-5D	EPA 300.0 Rev 2.1 1993	721661		
92623226007	YGWA-21I	EPA 300.0 Rev 2.1 1993	721661		
92623226008	YGWA-1D	EPA 300.0 Rev 2.1 1993	721661		
92623226009	YGWA-2I	EPA 300.0 Rev 2.1 1993	721661		
92623226010	YGWA-30I	EPA 300.0 Rev 2.1 1993	722003		
92623226011	YGWA-14S	EPA 300.0 Rev 2.1 1993	722003		
92623226012	YGWA-1L	EPA 300.0 Rev 2.1 1993	722003		
92623226013	YGWA-47	EPA 300.0 Rev 2.1 1993	722003		
92623226014	YGWA-4I	EPA 300.0 Rev 2.1 1993	722003		
92623226015	YGWA-20S	EPA 300.0 Rev 2.1 1993	722003		
92623226016	YGWA-3I	EPA 300.0 Rev 2.1 1993	722003		
92623226017	YGWA-3D	EPA 300.0 Rev 2.1 1993	722003		
92623226018	YGWA-39	EPA 300.0 Rev 2.1 1993	722003		
92623226019	YGWA-40	EPA 300.0 Rev 2.1 1993	722003		

Pace DC#_Title: ENV-FRM-HI Effective Date: 05/12/2022	JN1-0083 v(01_Sa	mple C	ond	lition Upon Receipt
aboratory receiving samples:					
Asheville Eden Greenwood Upon Receipt	Huntersville	e 🗌	Raleigh	 Proje	Mechanicsville Atlanta Kernersville Kernersville
Courier: Feet X UPS	USPS			ent	
☐ Commercial ☐ Pace	Other:				92623226
Custody Seal Present? Yes No Sea	als Intact?	Yes	□No	,	Date/Initials Person Examining Contents: 8/31/22
Packing Material: Bubble Wrap	Bubble Bags [None		ther	Biological Tissue Frozen?
Thermometer:			,		☐Yes ☐No ☑N/A
Cooler Temp: Cooler Temp Corrected (°C): USDA Regulated Soil (N/A, water sample)	^ /	_	Wet □€	Blue	□None Temp should be above freezing to 6°C □Samples out of temp criteria. Samples on ice, cooling process has begun
Did samples originate in a quarantine zone within t	he United States:	CA, NY,	or SC		Did samples originate from a foreign source (internationally,
(check maps)? Yes No					Including Hawaii and Puerto Rico)? Yes No Comments/Discrepancy:
Chain of Custody Present?	Zies	□No	□N/A	1.	
Samples Arrived within Hold Time?	Yes	□No	□N/A	2	
Short Hold Time Analysis (<72 hr.)?	□Yes	DNO	□N/A	3	
Rush Turn Around Time Requested?	□yes	No	□N/A	4	L.
Sufficient Volume?	Yes	□No	□N/A	5	*
Correct Containers Used?	-Elygs	□No	□N/A	6	
-Pace Containers Used?	ZYgs	□No	□N/A		
Containers Intact? Dissolved analysis: Samples Field Filtered?	Z Yes	□No	_ □N/A	7	
Sample Labels Match COC?	□Yes □Yes	□No	ØN/A □N/A	8	
-Includes Date/Time/ID/Analysis Matrix:	WG				
Headspace in VOA Vials (>5-6mm)?	□Yes	□No	DNA	-1	0.
Trip Blank Present?	Yes	□No	ZN/A	-	1.
Trip Blank Custody Seals Present?	□Yes	□No	_ DVA		
COMMENTS/SAMPLE DISCREPANCY					Field Data Required? Yes No
				Lot	ID of split containers:
CLIENT NOTIFICATION/RESOLUTION					pH Strip Lots 1004611
				_	
Person contacted:	4-110		Date/Tin	ne:	

Qualtrax ID: 69614

Project Manager SCURF Review:

Project Manager SRF Review:

Page 1 of 2



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

*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 bottles
- ***Check all unpreserved Nitrates for chlorine

PM: NMG

09/15/22

CLIENT: GA-GA Power

	BP4U-125 mL Plastic Unpreserved (N/A) (CI-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP45-125 mL Plastic H2SO4 (pH < 2) (CI·)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (CI-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CI-)	AG1H-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)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCI (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG95-40 mL VOA H25O4 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	RPSN	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AGDU-100 mL Amber Unpreserved (N/A) (CI-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
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6	1	1	1		1	13		/			1		1	1										2				
7	1	1	11		1	10		1																2				
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10	1				1		1	1			1													1	1			
11	1				1	1	1	X			1		1		1									1	1			
12	1										1		1	1														

		pH Ac	ljustment Log for Pres	erved Samples		
Sample 1D	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot#
579						
			M			

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

	0
1-	Pace
1	MUTCH STORY

DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

Laboratory receiving samples:			
	untersville	Raleigh[Mech LIOH : 0000000
Sample Condition Upon Receipt Client Name:	•	P	roject #: WUH - 92623226
Courier: Fed Ex DUPS	Dusps		PM: NMG Due Date: 09/15/22
Courier: Fed Ex UPS Commercial Dace	USPS Other:	Clie	CLIENT: GA-GA Power
Custody Seal Present? Yes 🗐 Yo Seals In	tact?	□No	Date/Initials Person Examining Contents: 4///2Z
Packing Material: Bubble Wrap Bubbl Thermometer:	e Bags Non	e 🗌 Oti	ner Biological Tissue Frozen?
1R Gun 1D: 230	Type of Ice:	Wet □Bit	Terrora Total Section 101 - Se
Cooler Temp: Correction Factor: Add/Subtract (°C)	6.0		Temp should be above freezing to 6°C
1	7	-	Samples out of temp criteria. Samples on ice, cooling process
Cooler Temp Corrected (°C): USDA Regulated Soil (N/A, water sample)	2)		has begun
Did samples originate in a quarantine zone within the Ur	nited States: CA, NY	, or SC	Did samples originate from a foreign source (internationally,
(check maps)? Yes No	· · · · · · · · · · · · · · · · · · ·		including Hawaii and Puerto Rico)?
Chain of Custody Present?	dres □No	□N/A	1.
Samples Arrived within Hold Time?	Dres One	□N/A	2.
Short Hold Time Analysis (<72 hr.)?	OYes ONo	□N/A	3.
Rush Turn Around Time Requested?	□Yes □No	□N/A	4.
Sufficient Volume?	ØYes □No	□N/A	5.
Correct Containers Used?	Yes No	□N/A	6.
-Pace Containers Used?	Pres No	□N/A	
Containers Intact?	□res □No	N/A	7.
Dissolved analysis: Samples Field Filtered? Sample Labels Match COC?	Yes No		9.
Sample cases Match Coc?	ØYes □Na	□N/A	9.
-Includes Date/Time/ID/Analysis Matrix:	\mathcal{N}_{-}	nv	
Headspace in VOA Vials (>5-6mm)?	□Yes □No	⊟N /A	10.
Trip Blank Present?	∐Yes □No	□M/A	11.
Trip Blank Custody Seals Present?	□Yes □No	ØN/A	
COMMENTS/SAMPLE DISCREPANCY			Field Data Required? Yes No
		t	ot ID of split containers:
CLIENT NOTIFICATION/RESOLUTION			pH Strip Lot# 10D4611
			-
Person contacted:		Date/Time	
Project Manager SCURF Review:			Date:
Project Manager SRF Review:			Date:



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

*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 bottles
- ***Check all unpreserved Nitrates for chlorine

WO#: 92623226

PM: NMG

Due Date: 09/15/22

CLIENT: GA-GA Power

	(CI-)				f		۱ (۶۹)	-	pavia	(cl-)		(-iɔ) (7)	(-i)		N/A)
ltem#	BP4U-125 mL Plastic Unpreserved (N/A)	BP3U-250 mL Plastic Unpreserved (N/A	BP2U-500 mL Plastic Unpreserved (N/A	8P1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (CI	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 ml. Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (C	WGFU-Wide-mouthed Glass jar Unpres	AG1U-1 liter Amber Unpreserved (N/A)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CI-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG35-250 mL Amber H2504 (pH < 2)	DG94-250 mL Amber NH4CI (N/A)(CI-)	DG9H-40 mL VOA HCI (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2504 (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A	SP5T-125 mL Sterile Plastic (N/A - lab)	SPZT-250 mL Serile Plastic (N/A - lab)	ROIN	BP3R-250 mL Plastic (NH2)25O4 (9.3-9.	AGOU-100 mL Amber Unpreserved (N/A) (CI-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials in
1		(1			V	1	1							/									22				
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11						1																						
12					/	/	/						/	/	/													

		рн Ас	ljustment Log for Pres	erved Samples		
Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation	Amount of Preservative	Lot #
		·		adjusted	added	

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

CHAIN-OF-CUSTODY / Analytical Request Document The Chein-of-Costody is a LEGAL DOCUMENT. All relevant fields must be contributed.

	•	App M. Hattas (2008; Arternory (St)), Arsteric (As), Bartum (Bs), Baryflum (Bs), Cactrisom (CCI, Corporalym (CC), Cactest (Cos), Leod (FS), Varians (Lr), Adoptosenue (Ms), Saterium (So) (PASOA; Edimogray (Hs))	Agg H 60208: 35, Ag AL V	Aco B Moster: Baron 60208, Ca 80100.	12 YGWA-I4S	_	YGWA-211	YGWA-20S	ACM-181	YGWA-188	10 YGWA-178	TOWASD	AGMY81	YGWA-4)	GWA-2	YGWA-07	SAMPLE DO COMPANY OF THE PARTY				Brane An State 170 Com		Adors Allerta, GA	GA Provide Company	
## SAMPLE TEMP AT COLLECTION SAMPLE TEMP AT COLLECTION SAMPLE TEMP AT COLLECTION	: Fruit Ben	LAND WHILL		2	6		-	6	6	0	6	0	0	6	800 800 S	9	A S S S P P P S S S S S S S S S S S S S		1	Plant Yetes Proted Upins	Purchase Order 8:	- 1	- 1	14	
TEMP In C Bendard Chloring (7/7)	200	11 24/18/4	2001 12/1E/B	2 Mar	5 2 3	6 2 3	5 2 3	8 2 3	5 2 3	5 2 3	5 2 3	to to	6 2	8 2 3		5 2 3	SANIFLE TEMP AT COLLECTION SOF COSTANISMS Unpreserved HCI HRIOS HCI NACH MS28203 MS9/most Other		Pace Pode 6: 10540	Para Project Manager		Constant wants.	Administra South Sprin Co.	Grados Indomination;	Section C
Recented on log (Y/Ar)	8/3//22	The second second second	To fee	8/3/6	X	9K 3										N T IN THE SECOND	(A.) (1840) (A.) (A.) (1840) (A.) (1840) (The section of the property of			20 · 10 · 10 · 10 · 10 · 10 · 10 · 10 ·				

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	awyssa (as), Cabrium (Cd), Circnium (Cd, Caball (Co), Leed (Po), Urbum (U), Maybelanum (Mo), Selamum (So) Thelbi: Maynary (Mg)	tota 60208: Andmosty (St.), Antonic (Ast), Bartes	199 18 Materia: Barroca (1920), Car (1970); 199 18 (1920): Zh. Ali, Ali, V	tions Bush 200.0 (Ct, F, Bushes)	11、世界 かからないの	YOWA-14S	TOWN 301	YGWA-211	SUC-VMD	YGMA-18II	YGWA-188	AGMY-128	TOWASD	TGWA-8	YGWA-41	GWA-2	YGWA-47	SAMPLE ID One Character per box. (ACL 001) Sample the meet by unique			ed Ouro Date:	470.620.8176 Fea	11	Allerto GA	li)
	L Cased (Po).	E .	1	A														100800111			Project Number	Parchage Order 8:	100	Report To	Section B Required Project Internations
	•	200	Z			Ä	Ž	1	THE S	\$	THE C	TWO DAY	See .	Ą	इ	Z.	I	MATRIX CODE _[out wild on	-	11		Order		5	
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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.

		Beryllum (Be), Cado Lithum (Li), Molytide 7040A: Mercury (Hg)	App N: Me	App III Mar App III 60	Arions Su		12		10	9	8	7	6	5	4		2	-	ITEM#		Requeste	Phone:	Email To:	Address.	Company:	Required
		Beryilum (Be), Cadmium (Cd), Chromium (Cr), Coball (Co), Lead (Pb), Löhum (U), Molybdenum (Mo), Selenium (Se) TOADA: Mercury (Hg)	rtals 6020B: Antimorry (Sb), Arsenic (As), Ba	App III Metats: Boron 6020B, Ca 6010D; App III 6020B: Zn, Ag, Ni, V	Anions Sum 300.0 (Cl. F. Sulfate)	ADDITIONAL COMMENTS	YGWA-14S	YGWA-301	YGWA-21I	YGWA-20S	YGWA-181	YGWA-18S	YGWA-17S	YGWA-5D	YGWA-5I	YGWA-4I	GWA-2	YGWA-47	SAMPLE ID One Character per box. (A-Z, 0-9 f) Sample ids must be unique		Requested Due Date:	470.620.6176 Fax	laucoker@southemco.com	Aliania, GA	GA Power	Section A Required Client Information:
		Co), Lead (Pb).	ium (Ba). Kylon	B	N	RE						2							Orbality Welter UVV Welter VVVV Product P Product P Solfford QL Work Work Work A Other VVV Tennon 15		Project Number:	Project Name:	Purchase Order #:	Copy 10:	П	Section B Required Project Information:
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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.

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		Benylimm (Be), Cadmium (CD), Chromium (Cr), Cobalt (Co), Lead (Pb), Libium (Li), Molybdenum (Mo), Selenium (Se)	App IV Motale 6020R: Antimony (Sh.) Arsenic (As.) Banirm (Ba.)	App III Metals: Boron 6020B, Ca 6010D; App III 6020B; Zn, Ag, Ni, V	Anions Suite 300.0 (Cl. F. Sulfate)	ADDITIONAL COMMENTS	YGWA-14S	YGWA-301	YGWA-211	YGWA-20S	YGWA-18I	YGWA-18S	YGWA-17S	YGWA-5D	YGWA-5I	YGWA-4I	GWA-2	YGWA-47	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique		Requested Due Date:	470.620.6176 Fax	laucoker@southernco.com	1	GA Power	Section A Required Client Information:
		Co), Lead (Pb).	im (Ba)	\	A									(00)					Orbelay Water W7 Water Weet W7 Water Weet W7 Product 9 P	- 1	Project Number	Project Name:	Purchas	Сору Та:	Report T	Section B Required
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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.

	App IV: I Beryttum Lithium (App III N	Anions S		12	11	10	9	co	7	8	5	4	w	2	1	Required C Company C Company C Company C Company C Phone: Requested Request
The second	App IV: Medals 6020B; Antimony (Sb), Arsenic (As), Barium (Ba), Berytium (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Pb), Lithium (U), Molybdenum (Mo), Selenium (Se) 7040A, Mercury (Hg)	App til Metals: Boron 6020B, Ca 6010D; App til 6020B: Zn, Ag, Ni, V	Anions Suite 300.0 (Cl. F, Suifate)	ADDITIONAL COMMENTS	YGWA-14S	YGWA-30I	YGWA-21I	YGWA-20S	YGWA-18I	YGWA-18S	YGWA-17S	YGWA-5D	YGWA-51	YGWA-41	GWA-2	YGWA-47	Section A Required Client Information: Required Client Information: Required Client Information: Recompany: GAP Power Alienta, GA Company: Alienta, GA Company: GATINA Requested Due Date: Requested Due Date: SAMPLE ID One Character per box. (A-Z, 0-91,-) Sample ids must be unique Sample ids must be unique Trace Requested Client Information: Requested
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Received on ce (Y/N) Custody Sealed Cooler (Y/N) Samples				SAMPLE CONDITIONS	pH:	pH:	pH: 6.53	pH:	pH:	pH:	pH:	pH: 7.40	pH: S OO	pH:	PH:	pH:	ton Of)

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

		App IV: I Beryllium Lithium (7040A: I	App III M	Anions S	DATE OF THE PARTY	12	11	10	9	03	7	6	ÇTI	4	u	2	1	ITEM #			Reques	Phone:	Email To:	Address	Company:	Required
		App Nr. Metals 6020B; Antimony (Sb.), Arsenic (As.), Barium (Be.), Beryllium (Be.), Cadmium (Cd.), Chromium (Cr.), Cobalt (Co.), Lead (Pb.), Lithium (Li.), Maybdenum (Mo.), Selenium (Se.) 7040A; Mercury (Hg.)	App III Metals: Boron 6020B, Ca 6010D; App III 6020B; Zr, Ag. Ni. V	Anions Suite 300.0 (Cl, F, Sulfate)	ADDITIONAL COMMENTS						YGWA-3D	YGWA-3I	YGWA-2I	YGWA-1D	YGWA-11	YGWA-40	YGWA-39	SAMPLE ID SAMPLE ID SAMPLE ID Character per box. (A-Z, 0-9 (, -) Sample Ids must be unique Tenso Tenso Tenso Tenso Tenso Average Tenso Average Tenso			Requested Due Date:	470.620.6176 Fax	laucoker@southemco.com	Atlanta. GA	GA Power	Client Information:
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	App IV: N Beryffium Lithium (I 7040A: N	App III M	Anions S		12	1	5 6		7	6	1986	200	533		1	ITEM#		Requeste	Phone:	Email To:	Address:	Company:	Section A Required	
	App IV: Metals 6020B: Antimony (Sb), Assenic (As), Barium (Ba), Beryllium (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Pb), Lithium (Li), Molybdenum (Mo), Selenium (Se) 7040A: Mercury (Hg)	App III Metals: Boron 6020B, Ca 6010D; App VII 6020B: Zn, Ag, Ni, V	vnions Suite 300.0 (Cl. F, Sulfate)	ADDITIONAL COMMENTS					YGWA-3D	YGWA-3I	YGWA-2I	YGWA-1D	YGWA-1I	YGWA-40	YGWA-39	SAMPLE ID One Character per bdx. (AZ 0-91) Sample lds must be unique		Requested Due Date:	470.620.6176 Fax	П		GA Power	Section A Required Client Information:	
	bbatt (Co), Lead (Pb).	The state of the s	The same of the sa													MATRIX CODE DITARY Water DW Wester WY Wester WW Product P Product P Product O P Product O P Product O P P P P P P P P P P P P P P P P P P P		Project Number:	Project Name:	Purchase Order #:	Copy Io:	Report To: SCS Contacts	Section B Required Proje	
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Required Ctient Information: Company: GA Power Address: Atlanta, GA App IV: Metals 6020B: Artimony (Sb), Alsenic (As), Barium (Ba), Beryllum (Be), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Pb), Uthium (U), Molyddenum (Mo), Selenium (Se) App III Metals: Boron 6020B, Ca 6010D; App VII 6020B; Zn, Ag, Ni, V Section A mall To: nions Suite 300.0 (CI, F, Suifate) 12 ITEM # YGWA-14S GWA-2 YGWA-20S YGWA-18I YGWA-18S YGWA-5I YGWA-41 YGWA-30I YGWA-211 YGWA-17S YGWA-47 YGWA-5D 470.620.6176 Fax One Character per bex. (A-Z, 0-91, -) Sample lds must be unique SAMPLE ID ADDITIONAL COMMENTS MATRIX Driving Water Water Water Water Water Product Solf-Solid Other Tissue Purchase Order #: Project Name: Report To: SCS Contacts Copy To: Section B RELINQUISHED BY I AFFILIATION OMEN DOWNARCADE WG WG WG WG Arcadis Contacts MATRIX CODE (see yatid codes to left) 98/31 68/31 0 0 0 0 0 Q G G 0 SAMPLE TYPE Plant Yates Pooled Upgradient 11/1/1 DATE START 1257 1537 SAMPLER NAME AND SIGNATURE TIME PRINT Name of SAMPLER: SIGNATURE of SAMPLER: COLLECTED / Kale A88 DATE The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed CHAIN-OF-CUSTODY / Analytical Request Documen END TIME DATE 100 22 122 SAMPLE TEMP AT COLLECTION Attention: Southe Company Name: 0300 2 c # OF CONTAINERS Pace Quote: Pace Project Manager. Address: Ġ Œ c S cn G co cn G Section C 104 2 2 2 2 2 2 2 2 2 N N 2 Unpreserved H2SO4 ниоз w w ω ω w w ω ω u Preservatives HCI 20,0 NaOH ACCEPTED BY I AFFILIATION Na2S2O3 William Nicole D'Oleo Methanol Other **Analyses Test** Y/N App III/IV Metals × × PRIL DATE Signed: All Ex × × × × × × × CI, F, SO4 × × × × × × × × × × × × × × × TDS (2540C) × × × × × × RAD 9315/9320 App I / II (gpysum only) 2 accurately 09% 000 TIME Requistory Agency State / Location Page: TEMP in C Residual Chlorine (Y/N) SAMPLE CONDITIONS 맞 PH: 모 Received on 浧 ΡH 무 pH: 모 모 (Y/N) Custody Sealed Cooler 38 S gγ 9 (Y/N) Samples nlact (Y/N)

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	App IV: Metals 6020B; Antimony (Sb), Arsanic (As), Banum (Ba), Beryllum (Be), Cadmium (Cd), Chromium(Cr), Cobart (Co), Lead (Pb), Lithium (L1), Molycdenum (Mo), Selenium (Se) 7040A; Mercury (Hg)	App III Metals: Boron 6020B, Ca 6010D; App VII 6020B: Zn, Ag, Ni, V	Anions Suite 300.0 (CI, F, Sulfate)	ADDITIONAL COMMENTS	YGWA-14S	YGWA-30I	YGWA-21I	YGWA-20S	YGWA-18I	YGWA-18S	YGWA-17S	YGWA-5D	YGWA-5I	YGWA-4I	GWA-2	YGWA-47	SAMPLE ID One Character per box. (A-Z 0-9 / -) Sample ids must be unique		ed Due Date:	470.620.6176 Fax		L		1 A ad Cilent Information:
	Kypa N.	MA	5 Mari		wd G	же е	wa a				wg G		wg G		wg g	wg с	MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP)		Project Number:	Project Name:		Copy To: Arcadi	Report To: SCS Contact	Section B
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Required Client Information: Company: GA Power Address: Allanta, GA App IV: Metals 6020B: Antimony (Sb), Artenic (As), Benium (Ba), Benyilium (Be), Cedmium (Cd), Chromium (Cr), Cobalt (Co), Lead Lithium (Li), Molyodenium (Mo), Selenium (Se) App III Metals: Boron 6020B, Ca 6010D; App I/II 6020B; Zn, Ag, Ni, V Section A Anions Suite 300.0 (Cl. F. Sulfate) Email To: ITEM # 12 10 6 YGWA-2I YGWA-40 YGWA-3I YGWA-1D YGWA-11 YGWA-39 470.620.6176 Fex One Character per box. (A-Z, 0-91,-) Sample ids must be unique SAMPLE ADDITIONAL COMMENTS 5 Required Project Information: Report To: SCS Contacts Copy To: Arcadis Conta 9 Project Name: Purchase Order #: Lyan RELINQUISHED BY / AFFILIATION SCS Contacts Arcadis Contacts WG WG WG WG MATRIX CODE (see valid codes to left) Millians 0 0 G SAMPLE TYPE (G=GRAB C=COMP) Plant Yates Pooled Upgradient 0 0 0 0 START CAIG SAMPLER NAME AND SIGNATURE COLLECTED Para SIGNATURE of SAMPLER: PRINT Name of SAMPLER: 100 /Arcadis The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed DATE CHAIN-OF-CUSTODY / Analytical Request Document 1 ENO 19/1/ 100 TIME 1 ı ı 1 1 DATE 2 12 SAMPLE TEMP AT COLLECTION Attention: Southe Company Name: # OF CONTAINERS Pace Quote: Address: 1056 ch U on U 0800 THE 2 2 N 2 2 Unpreserved 7 H2SO4 Southern Co HNO3 w w w w w ω Preservatives CHAN HCI NaOH なない ACCEPTED BY / AFFILIATION Na2S2O3 Nicole D'Oleo Villian Methanol Other Y/N **Analyses Test** App III / IV Metals DATE Signed: CI, F, SO4 × × × × × Porce × × × × × × TDS (2540C) × × × × RAD 9315/9320 2 App | / || (gpysum only) 3 DATE accurately Supo 0800 TIME Regulatory Agency State / Location Page: TEMP in C Residual Chlorine (Y/N) SAMPLE COMBITIONS 모 무 모: 모 뫈 Received on 모 (Y/N) Custody Cooler (Y/N) đ لو Samples Intact (Y/N)





September 23, 2022

Ms. Lauren Petty Southern Company 42 Inverness Center Parkway Birmingham, AL 35242

RE: Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory between August 31, 2022 and September 01, 2022. 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

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

Sincerely,

Micole D'oles

Nicole D'Oleo nicole.d'oleo@pacelabs.com (704)875-9092 Project Manager

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Lauren Coker, Georgia Pwer
Noelia Gangi, Georgia Power
Geoffrey Gay, ARCADIS - Atlanta
Ben Hodges, Georgia Power
Kristen Jurinko
Laura Midkiff, Georgia Power
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Michael Smilley, Georgia Power
Becky Steever, Arcadis
Tina Sullivan, ERM

Albert Zumbuhl, Arcadis



(770)734-4200



CERTIFICATIONS

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

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 #: 460198 Washington Certification #: C868 West Virginia DEP Certification #: 143 West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad Wyoming Certification #: 8TMS-L



SAMPLE SUMMARY

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92623277001	YGWA-17S	Water	08/30/22 15:40	08/31/22 11:03
92623277002	YGWA-18S	Water	08/30/22 10:10	08/31/22 11:03
92623277003	YGWA-18I	Water	08/30/22 13:35	08/31/22 11:03
92623277004	GWA-2	Water	08/30/22 10:05	08/31/22 11:03
92623277005	YGWA-5I	Water	08/30/22 10:52	08/31/22 11:03
92623277006	YGWA-5D	Water	08/30/22 12:05	08/31/22 11:03
92623277007	YGWA-21I	Water	08/30/22 14:30	08/31/22 11:03
92623277008	YGWA-1D	Water	08/30/22 13:50	08/31/22 11:03
92623277009	YGWA-2I	Water	08/30/22 10:00	08/31/22 11:03
92623277010	YGWA-30I	Water	08/31/22 11:30	09/01/22 09:05
92623277011	YGWA-14S	Water	08/31/22 14:15	09/01/22 09:05
92623277012	YGWA-1I	Water	08/31/22 09:10	09/01/22 09:05
92623277013	YGWA-47	Water	08/31/22 09:15	09/01/22 09:05
92623277014	YGWA-4I	Water	08/31/22 15:37	09/01/22 09:05
92623277015	YGWA-20S	Water	08/31/22 12:57	09/01/22 09:05
92623277016	YGWA-39	Water	08/31/22 13:50	09/01/22 09:05
92623277017	YGWA-40	Water	08/31/22 16:40	09/01/22 09:05
92623277018	YGWA-3I	Water	08/31/22 10:54	09/01/22 09:05
92623277019	YGWA-3D	Water	08/31/22 09:30	09/01/22 09:05



SAMPLE ANALYTE COUNT

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92623277001	YGWA-17S	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277002	YGWA-18S	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277003	YGWA-18I	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277004	GWA-2	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277005	YGWA-5I	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277006	YGWA-5D	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277007	YGWA-21I	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277008	YGWA-1D	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277009	YGWA-2I	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277010	YGWA-30I	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277011	YGWA-14S	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277012	YGWA-1I	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2623277013	YGWA-47	EPA 9315	RMS	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277014	YGWA-4I	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277015	YGWA-20S	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277016	YGWA-39	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277017	YGWA-40	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277018	YGWA-3I	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92623277019	YGWA-3D	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92623277001	YGWA-17S					
EPA 9315	Radium-226	0.114 ± 0.0935 (0.148)	pCi/L		09/21/22 16:06	
EPA 9320	Radium-228	C:97% T:NA 0.964 ± 0.357 (0.496) C:79%	pCi/L		09/21/22 11:51	
Total Radium Calculation	Total Radium	T:96% 1.08 ± 0.451 (0.644)	pCi/L		09/22/22 16:49	
92623277002	YGWA-18S					
EPA 9315	Radium-226	0.0688 ± 0.0906 (0.189) C:97% T:NA	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	0.542 ± 0.287 (0.493) C:82% T:95%	pCi/L		09/21/22 11:51	
Total Radium Calculation	Total Radium	0.611 ± 0.378 (0.682)	pCi/L		09/22/22 16:49	
92623277003	YGWA-18I					
EPA 9315	Radium-226	0.0453 ± 0.0847 (0.194) C:91% T:NA	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	0.961 ± 0.372 (0.555) C:81% T:93%	pCi/L		09/21/22 11:52	
Total Radium Calculation	Total Radium	1.01 ± 0.457 (0.749)	pCi/L		09/22/22 16:49	
92623277004	GWA-2					
EPA 9315	Radium-226	0.181 ± 0.124 (0.194)	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	C:91% T:NA 1.34 ± 0.454 (0.623) C:83% T:89%	pCi/L		09/21/22 11:52	
Total Radium Calculation	Total Radium	1.69% 1.52 ± 0.578 (0.817)	pCi/L		09/22/22 16:49	

REPORT OF LABORATORY ANALYSIS



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92623277005	YGWA-5I					
EPA 9315	Radium-226	0.0755 ± 0.109 (0.238) C:95% T:NA	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	0.644 ± 0.326 (0.564) C:79% T:97%	pCi/L		09/21/22 11:52	
Total Radium Calculation	Total Radium	0.720 ± 0.435 (0.802)	pCi/L		09/22/22 16:49	
2623277006	YGWA-5D					
EPA 9315	Radium-226	3.13 ± 0.626 (0.210) C:93% T:NA	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	2.21 ± 0.587 (0.575) C:82% T:89%	pCi/L		09/21/22 11:52	
Total Radium Calculation	Total Radium	5.34 ± 1.21 (0.785)	pCi/L		09/22/22 16:49	
2623277007	YGWA-21I					
EPA 9315	Radium-226	0.307 ± 0.154 (0.202) C:92% T:NA	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	0.959 ± 0.367 (0.535) C:81% T:92%	pCi/L		09/21/22 11:52	
Total Radium Calculation	Total Radium	1.27 ± 0.521 (0.737)	pCi/L		09/22/22 16:49	
2623277008	YGWA-1D					
EPA 9315	Radium-226	0.248 ± 0.149 (0.239) C:94% T:NA	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	0.579 ± 0.293 (0.483) C:82% T:88%	pCi/L		09/21/22 11:52	
Total Radium Calculation	Total Radium	0.827 ± 0.442 (0.722)	pCi/L		09/22/22 16:49	

REPORT OF LABORATORY ANALYSIS



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92623277009	YGWA-2I					
EPA 9315	Radium-226	0.0872 ± 0.111 (0.234)	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	C:93% T:NA 0.612 ± 0.309 (0.528) C:83%	pCi/L		09/21/22 11:52	
Total Radium Calculation	Total Radium	T:94% 0.699 ± 0.420 (0.762)	pCi/L		09/22/22 16:49	
92623277010	YGWA-30I					
EPA 9315	Radium-226	-0.0454 ± 0.0594 (0.213) C:94% T:NA	pCi/L		09/21/22 19:39	
EPA 9320	Radium-228	0.506 ± 0.326 (0.611) C:81% T:92%	pCi/L		09/21/22 15:02	
Total Radium Calculation	Total Radium	0.506 ± 0.385 (0.824)	pCi/L		09/22/22 16:49	
92623277011	YGWA-14S					
EPA 9315	Radium-226	0.0608 ± 0.106 (0.240) C:99% T:NA	pCi/L		09/21/22 18:12	
EPA 9320	Radium-228	0.360 ± 0.304 (0.605) C:81% T:90%	pCi/L		09/21/22 15:03	
Total Radium Calculation	Total Radium	0.421 ± 0.410 (0.845)	pCi/L		09/22/22 16:49	
92623277012	YGWA-1I					
EPA 9315	Radium-226	0.0430 ± 0.0679 (0.146) C:98% T:NA	pCi/L		09/21/22 18:12	
EPA 9320	Radium-228	0.447 ± 0.314 (0.593) C:78% T:94%	pCi/L		09/21/22 15:03	
Total Radium Calculation	Total Radium	0.490 ± 0.382 (0.739)	pCi/L		09/22/22 16:49	

REPORT OF LABORATORY ANALYSIS



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Lab Sample ID	Client Sample ID						
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers	
92623277013	YGWA-47						
EPA 9315	Radium-226	0.367 ± 0.173 (0.233)	pCi/L	09/22/22 08:08			
EPA 9320	Radium-228	C:98% T:NA 0.347 ± 0.308 (0.623) C:81%	pCi/L	09/	/21/22 15:03		
Total Radium Calculation	Total Radium	T:95% 0.714 ± 0.481 (0.856)	pCi/L	09/	/22/22 16:49		
2623277014	YGWA-4I						
EPA 9315	Radium-226	0.625 ± 0.214 (0.185) C:97% T:NA	pCi/L	09/	/22/22 08:43		
EPA 9320	Radium-228	0.337 ± 0.338 (0.698) C:82% T:89%	pCi/L	09/	/21/22 15:03		
Total Radium Calculation	Total Radium	0.962 ± 0.552 (0.883)	pCi/L	09/	/22/22 16:49		
2623277015	YGWA-20S						
EPA 9315	Radium-226	0.126 ± 0.104 (0.183) C:96% T:NA	pCi/L	09/	/22/22 10:18		
EPA 9320	Radium-228	0.0579 ± 0.297 (0.681) C:81% T:91%	pCi/L	09/	/21/22 15:03		
Total Radium Calculation	Total Radium	0.184 ± 0.401 (0.864)	pCi/L	09/	/22/22 16:49		
92623277016	YGWA-39						
EPA 9315	Radium-226	0.642 ± 0.214 (0.200)	pCi/L	09/	/22/22 10:18		
EPA 9320	Radium-228	C:97% T:NÁ 0.295 ± 0.310 (0.641) C:80% T:91%	pCi/L	09/	/21/22 15:03		
Total Radium Calculation	Total Radium	0.937 ± 0.524 (0.841)	pCi/L	09/	/22/22 16:49		

REPORT OF LABORATORY ANALYSIS



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92623277017	YGWA-40					
EPA 9315	Radium-226	0.202 ± 0.139 (0.236) C:98% T:NA	pCi/L		09/22/22 10:18	
EPA 9320	Radium-228	0.311 ± 0.325 (0.675) C:77% T:95%	pCi/L		09/21/22 15:03	
Total Radium Calculation	Total Radium	0.513 ± 0.464 (0.911)	pCi/L		09/22/22 16:49	
92623277018	YGWA-3I					
EPA 9315	Radium-226	0.647 ± 0.215 (0.149)	pCi/L		09/22/22 10:19	
EPA 9320	Radium-228	C:92% T:NA 0.687 ± 0.386 (0.703) C:80% T:89%	pCi/L		09/21/22 15:04	
Total Radium Calculation	Total Radium	1.33 ± 0.601 (0.852)	pCi/L		09/22/22 16:49	
92623277019	YGWA-3D					
EPA 9315	Radium-226	1.19 ± 0.306 (0.187) C:92% T:NA	pCi/L		09/22/22 12:51	
EPA 9320	Radium-228	0.927 ± 0.394 (0.629) C:81% T:92%	pCi/L		09/21/22 15:04	
Total Radium Calculation	Total Radium	2.12 ± 0.700 (0.816)	pCi/L		09/22/22 16:49	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-17S PWS:	Lab ID: 926232 Site ID:	77001 Collected: 08/30/22 15:40 Sample Type:	Received:	08/31/22 11:03	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Se	rvices - Greensburg				
Radium-226	EPA 9315	0.114 ± 0.0935 (0.148) C:97% T:NA	pCi/L	09/21/22 16:06	6 13982-63-3	
	Pace Analytical Se	rvices - Greensburg				
Radium-228	EPA 9320	0.964 ± 0.357 (0.496) C:79% T:96%	pCi/L	09/21/22 11:51	15262-20-1	
	Pace Analytical Se	rvices - Greensburg				
Total Radium	Total Radium Calculation	1.08 ± 0.451 (0.644)	pCi/L	09/22/22 16:49	9 7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-18S PWS:	Lab ID: 9262327 Site ID:	7002 Collected: 08/30/22 10:10 Sample Type:	Received:	08/31/22 11:03	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	vices - Greensburg				
Radium-226	EPA 9315	0.0688 ± 0.0906 (0.189) C:97% T:NA	pCi/L	09/21/22 19:39	9 13982-63-3	
	Pace Analytical Ser	vices - Greensburg				
Radium-228	EPA 9320	0.542 ± 0.287 (0.493) C:82% T:95%	pCi/L	09/21/22 11:51	15262-20-1	
	Pace Analytical Ser	vices - Greensburg				
Total Radium	Total Radium Calculation	0.611 ± 0.378 (0.682)	pCi/L	09/22/22 16:49	9 7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-18I PWS:	Lab ID: 9262 Site ID:	23277003 Collected: 08/30/22 13:35 Sample Type:	Received:	08/31/22 11:03	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.0453 ± 0.0847 (0.194) C:91% T:NA	pCi/L	09/21/22 19:39	9 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.961 ± 0.372 (0.555) C:81% T:93%	pCi/L	09/21/22 11:52	2 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	1.01 ± 0.457 (0.749)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: GWA-2 PWS:	Lab ID: 9262 Site ID:	3277004 Collected: 08/30/22 10:05 Sample Type:	Received:	08/31/22 11:03	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.181 ± 0.124 (0.194) C:91% T:NA	pCi/L	09/21/22 19:39	9 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	1.34 ± 0.454 (0.623) C:83% T:89%	pCi/L	09/21/22 11:52	2 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	1.52 ± 0.578 (0.817)	pCi/L	09/22/22 16:49	9 7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-5I PWS:	Lab ID: 9262327 Site ID:	77005 Collected: 08/30/22 10:52 Sample Type:	Received:	08/31/22 11:03	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	rvices - Greensburg				
Radium-226	EPA 9315	0.0755 ± 0.109 (0.238) C:95% T:NA	pCi/L	09/21/22 19:39	9 13982-63-3	
	Pace Analytical Ser	rvices - Greensburg				
Radium-228	EPA 9320	0.644 ± 0.326 (0.564) C:79% T:97%	pCi/L	09/21/22 11:52	2 15262-20-1	
	Pace Analytical Ser	rvices - Greensburg				
Total Radium	Total Radium Calculation	0.720 ± 0.435 (0.802)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-5D PWS:	Lab ID: 9262 Site ID:	3277006 Collected: 08/30/22 12:05 Sample Type:	Received:	08/31/22 11:03	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	3.13 ± 0.626 (0.210) C:93% T:NA	pCi/L	09/21/22 19:3	9 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	2.21 ± 0.587 (0.575) C:82% T:89%	pCi/L	09/21/22 11:52	2 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	5.34 ± 1.21 (0.785)	pCi/L	09/22/22 16:49	9 7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-21I PWS:	Lab ID: 9262 Site ID:	3277007 Collected: 08/30/22 14:30 Sample Type:	Received:	08/31/22 11:03	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.307 ± 0.154 (0.202) C:92% T:NA	pCi/L	09/21/22 19:39	9 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.959 ± 0.367 (0.535) C:81% T:92%	pCi/L	09/21/22 11:52	2 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	1.27 ± 0.521 (0.737)	pCi/L	09/22/22 16:49	9 7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-1D PWS:	Lab ID: 92623 Site ID:	3277008 Collected: 08/30/22 13:50 Sample Type:	Received:	08/31/22 11:03 I	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.248 ± 0.149 (0.239) C:94% T:NA	pCi/L	09/21/22 19:39	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.579 ± 0.293 (0.483) C:82% T:88%	pCi/L	09/21/22 11:52	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.827 ± 0.442 (0.722)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-2I PWS:	Lab ID: 92623 Site ID:	3277009 Collected: 08/30/22 10:00 Sample Type:	Received:	08/31/22 11:03 I	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.0872 ± 0.111 (0.234) C:93% T:NA	pCi/L	09/21/22 19:39	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.612 ± 0.309 (0.528) C:83% T:94%	pCi/L	09/21/22 11:52	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.699 ± 0.420 (0.762)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-30I PWS:	Lab ID: 9262327 Site ID:	77010 Collected: 08/31/22 11:30 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Ser	rvices - Greensburg				
Radium-226	EPA 9315	-0.0454 ± 0.0594 (0.213) C:94% T:NA	pCi/L	09/21/22 19:39	13982-63-3	
	Pace Analytical Ser	rvices - Greensburg				
Radium-228	EPA 9320	0.506 ± 0.326 (0.611) C:81% T:92%	pCi/L	09/21/22 15:02	2 15262-20-1	
	Pace Analytical Ser	rvices - Greensburg				
Total Radium	Total Radium Calculation	0.506 ± 0.385 (0.824)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-14S PWS:	Lab ID: 9262 3 Site ID:	3277011 Collected: 08/31/22 14:15 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.0608 ± 0.106 (0.240) C:99% T:NA	pCi/L	09/21/22 18:12	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.360 ± 0.304 (0.605) C:81% T:90%	pCi/L	09/21/22 15:03	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.421 ± 0.410 (0.845)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-1I PWS:	Lab ID: 9262 Site ID:	23277012 Collected: 08/31/22 09:10 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.0430 ± 0.0679 (0.146) C:98% T:NA	pCi/L	09/21/22 18:12	2 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.447 ± 0.314 (0.593) C:78% T:94%	pCi/L	09/21/22 15:03	3 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.490 ± 0.382 (0.739)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-47 PWS:	Lab ID: 9262 Site ID:	3277013 Collected: 08/31/22 09:15 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.367 ± 0.173 (0.233) C:98% T:NA	pCi/L	09/22/22 08:08	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.347 ± 0.308 (0.623) C:81% T:95%	pCi/L	09/21/22 15:03	3 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.714 ± 0.481 (0.856)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-4I PWS:	Lab ID: 9262 : Site ID:	3277014 Collected: 08/31/22 15:37 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.625 ± 0.214 (0.185) C:97% T:NA	pCi/L	09/22/22 08:43	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.337 ± 0.338 (0.698) C:82% T:89%	pCi/L	09/21/22 15:03	15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.962 ± 0.552 (0.883)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-20S PWS:	Lab ID: 9262 Site ID:	3277015 Collected: 08/31/22 12:57 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.126 ± 0.104 (0.183) C:96% T:NA	pCi/L	09/22/22 10:18	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.0579 ± 0.297 (0.681) C:81% T:91%	pCi/L	09/21/22 15:03	3 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.184 ± 0.401 (0.864)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-39 PWS:	Lab ID: 9262 Site ID:	23277016 Collected: 08/31/22 13:50 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.642 ± 0.214 (0.200) C:97% T:NA	pCi/L	09/22/22 10:18	3 13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.295 ± 0.310 (0.641) C:80% T:91%	pCi/L	09/21/22 15:03	3 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	0.937 ± 0.524 (0.841)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-40 PWS:	Lab ID: 926232 Site ID:	777017 Collected: 08/31/22 16:40 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Se	ervices - Greensburg				
Radium-226	EPA 9315	0.202 ± 0.139 (0.236) C:98% T:NA	pCi/L	09/22/22 10:18	3 13982-63-3	
	Pace Analytical Se	ervices - Greensburg				
Radium-228	EPA 9320	0.311 ± 0.325 (0.675) C:77% T:95%	pCi/L	09/21/22 15:03	3 15262-20-1	
	Pace Analytical Se	ervices - Greensburg				
Total Radium	Total Radium Calculation	0.513 ± 0.464 (0.911)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-3I PWS:	Lab ID: 9262 Site ID:	23277018 Collected: 08/31/22 10:54 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	0.647 ± 0.215 (0.149) C:92% T:NA	pCi/L	09/22/22 10:19	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.687 ± 0.386 (0.703) C:80% T:89%	pCi/L	09/21/22 15:04	1 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	1.33 ± 0.601 (0.852)	pCi/L	09/22/22 16:49	7440-14-4	



Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Sample: YGWA-3D PWS:	Lab ID: 9262 Site ID:	23277019 Collected: 08/31/22 09:30 Sample Type:	Received:	09/01/22 09:05	Matrix: Water	
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical	Services - Greensburg				
Radium-226	EPA 9315	1.19 ± 0.306 (0.187) C:92% T:NA	pCi/L	09/22/22 12:5	13982-63-3	
	Pace Analytical	Services - Greensburg				
Radium-228	EPA 9320	0.927 ± 0.394 (0.629) C:81% T:92%	pCi/L	09/21/22 15:04	1 15262-20-1	
	Pace Analytical	Services - Greensburg				
Total Radium	Total Radium Calculation	2.12 ± 0.700 (0.816)	pCi/L	09/22/22 16:49	7440-14-4	



QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

QC Batch: 530872 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92623277001, 92623277002, 92623277003, 92623277004, 92623277005, 92623277006, 92623277007,

 $92623277008,\,92623277009,\,92623277010,\,92623277011,\,92623277012,\,92623277013,\,92623277014,\\$

92623277015, 92623277016, 92623277017, 92623277018, 92623277019

METHOD BLANK: 2574649 Matrix: Water

Associated Lab Samples: 92623277001, 92623277002, 92623277003, 92623277004, 92623277005, 92623277006, 92623277007,

92623277008, 92623277009, 92623277010, 92623277011, 92623277012, 92623277013, 92623277014,

92623277015, 92623277016, 92623277017, 92623277018, 92623277019

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-226
 0.0321 ± 0.0991 (0.243) C:97% T:NA
 pCi/L
 09/21/22 16:07

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



QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

QC Batch: 530871 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92623277001, 92623277002, 92623277003, 92623277004, 92623277005, 92623277006, 92623277007,

92623277008, 92623277009, 92623277010, 92623277011, 92623277012, 92623277013, 92623277014,

92623277015, 92623277016, 92623277017, 92623277018, 92623277019

METHOD BLANK: 2574648 Matrix: Water

Associated Lab Samples: 92623277001, 92623277002, 92623277003, 92623277004, 92623277005, 92623277006, 92623277007,

92623277008, 92623277009, 92623277010, 92623277011, 92623277012, 92623277013, 92623277014,

92623277015, 92623277016, 92623277017, 92623277018, 92623277019

 Parameter
 Act ± Unc (MDC) Carr Trac
 Units
 Analyzed
 Qualifiers

 Radium-228
 0.757 ± 0.340 (0.552) C:80% T:96%
 pCi/L
 09/21/22 11:51

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.



QUALIFIERS

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Act - Activity

Date: 09/23/2022 07:28 AM

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Date: 09/23/2022 07:28 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
92623277001	YGWA-17S	EPA 9315	530872		
92623277002	YGWA-18S	EPA 9315	530872		
92623277003	YGWA-18I	EPA 9315	530872		
92623277004	GWA-2	EPA 9315	530872		
92623277005	YGWA-5I	EPA 9315	530872		
2623277006	YGWA-5D	EPA 9315	530872		
2623277007	YGWA-21I	EPA 9315	530872		
2623277008	YGWA-1D	EPA 9315	530872		
2623277009	YGWA-2I	EPA 9315	530872		
2623277010	YGWA-30I	EPA 9315	530872		
2623277011	YGWA-14S	EPA 9315	530872		
2623277012	YGWA-1I	EPA 9315	530872		
2623277013	YGWA-47	EPA 9315	530872		
2623277014	YGWA-4I	EPA 9315	530872		
2623277015	YGWA-20S	EPA 9315	530872		
2623277016	YGWA-39	EPA 9315	530872		
2623277017	YGWA-40	EPA 9315	530872		
2623277018	YGWA-3I	EPA 9315	530872		
2623277019	YGWA-3D	EPA 9315	530872		
2623277001	YGWA-17S	EPA 9320	530871		
2623277002	YGWA-18S	EPA 9320	530871		
2623277003	YGWA-18I	EPA 9320	530871		
2623277004	GWA-2	EPA 9320	530871		
2623277005	YGWA-5I	EPA 9320	530871		
2623277006	YGWA-5D	EPA 9320	530871		
2623277007	YGWA-21I	EPA 9320	530871		
2623277008	YGWA-1D	EPA 9320	530871		
2623277009	YGWA-2I	EPA 9320	530871		
2623277010	YGWA-30I	EPA 9320	530871		
2623277011	YGWA-14S	EPA 9320	530871		
2623277012	YGWA-1I	EPA 9320	530871		
92623277013	YGWA-47	EPA 9320	530871		
92623277014	YGWA-4I	EPA 9320	530871		
2623277015	YGWA-20S	EPA 9320	530871		
2623277016	YGWA-39	EPA 9320	530871		
2623277017	YGWA-40	EPA 9320	530871		
92623277018	YGWA-3I	EPA 9320	530871		
2623277019	YGWA-3D	EPA 9320	530871		
2623277001	YGWA-17S	Total Radium Calculation	534811		
2623277002	YGWA-18S	Total Radium Calculation	534811		
2623277003	YGWA-18I	Total Radium Calculation	534811		
2623277004	GWA-2	Total Radium Calculation	534811		
2623277005	YGWA-5I	Total Radium Calculation	534811		
2623277006	YGWA-5D	Total Radium Calculation	534811		
92623277007	YGWA-21I	Total Radium Calculation	534811		
2623277008	YGWA-1D	Total Radium Calculation	534811		
2623277009	YGWA-2I	Total Radium Calculation	534811		
92623277010	YGWA-30I	Total Radium Calculation	534811		



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Yates Pooled Upgradient Rads

Pace Project No.: 92623277

Date: 09/23/2022 07:28 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92623277011	YGWA-14S	Total Radium Calculation	534811		
92623277012	YGWA-1I	Total Radium Calculation	534811		
92623277013	YGWA-47	Total Radium Calculation	534811		
92623277014	YGWA-4I	Total Radium Calculation	534811		
92623277015	YGWA-20S	Total Radium Calculation	534811		
92623277016	YGWA-39	Total Radium Calculation	534811		
92623277017	YGWA-40	Total Radium Calculation	534811		
92623277018	YGWA-3I	Total Radium Calculation	534811		
92623277019	YGWA-3D	Total Radium Calculation	534811		

1	Pace	DC#_Title: ENV-F	RM-HUN1-0083 v	01_Sa	mple (ond	ition Upon Receipt
	ARTHUR STORY	Effective Date: 05/12/2	2022				
Could Cool	ratory received in the control of the commercial ody Seal President ody Seal President in the commeter:	Eden Greenwo Client Name: Feet tx Pace Bubble Wrap Correct Add/S	Od Huntersvill OUPS USPS Other: Seals Intact? Bubble Bags Type of Ice ubtract (*C)	Yes None		Projec ent	Mechanicsville Atlanta Kernersville WO#: 92623277 Date/Initials Person Examining Contents: 8/31/22 J Biological Tissue Frozen? Yes No No None Temp should be above freezing to 6°C Samples out of temp criteria. Samples on ice, cooling process has begun
USD	A Regulated : Did samples or	Soil (□ N/A, water sample iginate in a quarantine zone □ Yes □ No) within the United States	: CA, NY,	or SC		Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No
	Chain of Cust	ody Present?	Zves	□No	□n/a	1.	Comments/Discrepancy:
Ì		ved within Hold Time?	Yes	□No	□N/A	2.	
[Short Hold T	ime Analysis (<72 hr.)?	□Yes	No.	□N/A	3.	
[Rush Turn Ar	ound Time Requested?	□Yes	ZNo	□N/A	4,	
	Sufficient Vo	lume?	6Yes	□No	□N/A	5	
	Correct Cont	ainers Used?	-Elyps	□No	□N/A	6.	
ŀ		tainers Used?	Zig/	□No	□N/A		
	Containers Ir		Yes	□No	□N/A	7.	
		alysis: Samples Field Filtered ls Match COC?	? □Yes Yes	□No	N/A	8.	
	-Includes I	Date/Time/ID/Analysis Ma	1.1/2		□N/A	9	
	Headspace in Trip Blank Pr	VOA Vials (>5-6mm)?	Yes	□No	ZNA	-10	
			□Yes	□No	ØN/A	11	
COM		istody Seals Present? E DISCREPANCY	Yes	∐no			Field Data Required? ☐Yes ☐No
CLIENT	NOTIFICATION	n/resolution				Lot IC	of split containers: pH Strip Lot# 1004611
P		er SCURF Review:			Date/Tin	ne:	Date:
							8

Qualtrax ID: 69614

Page 1 of 2



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

*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 bottles
- ***Check all unpreserved Nitrates for chlorine

Project WO#: 92623277

PM: NMG

Due Date: 09/22/22

CLIENT: GA-GA Power

Hem#	BP4U-125 mL Plastic Unpreserved (N/A) (CI-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP45-125 mL Plastic H2SO4 (pH < 2) (CI-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (CI-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (CI-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (CI-)	AG15-1 liter Amber H2504 (pH < 2)	AG35-250 mL Amber H2504 (pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HC! (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mt. VOA H3PO4 (N/A)	DG9S-40 mt. VOA H25O4 (N/A)	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)	RPSN	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (CI-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1	/	T	1			1							1											2	7			
2	1		1			14	1				1		1											2				
3	1	li	1		1	1/0					1		1											2				
4	1	1			1	K					1													2				
5	1	1	T		1	1		X			1		1											2				
5	1	1	1		1	N		1			1			1	1									2				
7	1	1	1			1		X					1											2				
8	1	1	1	7 (2) 2 (2) 3 (2) 4	1	1		1					1		X				T					2				
9	1				1	N	1	1			1	T	1	1	1	T								2	1			
10	1				1	1	1	1			1		1	1										1	1			
11	1		T			1	1	1					1	1										1	1			
12	1					1	1	1					1	1											1			

		pH Ac	ljustment Log for Pres	erved Samples	41	
Sample 1D	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 DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers



DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

*Check mark top half of box if pH and/or dechlorination is verified and Project # 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 bottles
- ***Check all unpreserved Nitrates for chlorine

WO#:92623277

PM: NMG

Due Date: 09/22/22

CLIENT: GA-GA Power

	(CI-)						(6<)	-)	Prved	(CI-)		(-i)			VIII-04			-enemon							2	(ci-)		N/A)
	BP4U-125 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)	BP45-125 mL Plastic H2504 (pH < 2) (CI)H < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (G-)	WGFU-Wide-mouthed Glass jar Unpres	AG1U-1 liter Amber Unpreserved (N/A)	: 2)	AG3U-250 mL Amber Unpreserved (N/A) (CI-)	H < 2}	(pH < 2)	DG94-250 mL Amber NH4Cl (N/A)(Cl-)		(A/b)	(N/A)	A)	त	V/GK (3 vials per kit)-VPH/Gas kit (N/A	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Serile Plastic (N/A - lab)		BP3R-250 mL Plastic (NH2)2SO4 (9.3-9	AG0U-100 mL Amber Unpreserved (N/A) (CI-)	(N/A)	DG9U-40 mL Amber Unpreserved vials
	Unprese	Unprese	Unprese	Inpreser	H2SO4 (BP3N-250 mL plastic HNO3 (pH < 2)	ZN Aceta	изон (р	ed Glass j	Unpreser	AG1H-1 liter Amber HCl (pH < 2)	r Unpres	AG1S-1 liter Amber H2SO4 (pH	AG3S-250 mL Amber H2504 (pH < 2)	NH4CI ((N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	DG95-40 mL VOA H2504 (N/A)	-VPH/G	Plastic (N	Plastic (N		(NH2)2S	r Unpres	VSGU-20 mL Scintillation vials (N/A)	Unprese
	L Plastic	L Plastic	L Plastic	Plastic L	L Plastic	iL plastic	L Plastic	L Plastic	-mouth	Amber	Amber	of Ambe	Amber h	L Amber	L Amber	DG9H-40 mL VOA HCI (N/A)	VOA Na	VOA Ur	VOA H3	VOA H2	s per kit	. Sterile	Serile		L Plastic	L Ambe	Scintilla	. Amber
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Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DENR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers.

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

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CHAIN-OF-CUSTODY / Analytical Request Document
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CHAIN-OF-CUSTODY / Analytical Request Document
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CHAIN-OF-CUSTODY / Analytical Request Document
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Section A Required Clear Int	Acres Alta	To: Mark	475	sstad Due De			YGWA.CT		YGWA-4		Med YGWA 178	YGWA-18S	YGWA-1	YGWA-20S	TOWAY	TOWA 14S		1000 eps	COS. Zh. A	Metats 60201 1 (Be), Cadin Lij, Menyester Ancary (Mg)		

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:	t Informa	tion:				Saci	Section C Invoice information:	пафон:				The second					Раде:		_	 ზ
Company.	GA Power		SCS Contacts	ntacts				Atter	Attention:	Southern Co.	m Co.											
Address.	Allanta, GA		Arcadis Contacts	Contacts				Com	Company Name	ne:												
								Address:	.888:									R	Recoulatory Accesory	Agency		
Email To:	laucoker@southernco.com	Purchase Order #:						Pace	Pace Quote:													
Phone:	470.620.6176 Fax	ect Name:		Plant Yates P.	Pooled Upgradient	ogradier	ıt.	Pace	Pace Project Manager	Manager:	-1	Nicole D'Oleo	Oleo		1	THE STATE OF THE S	TOTAL PRODUCT		State / Location	cation		HARRESTALL
anbe		ect Number:						Pac	Pace Profile #:	10840	8					September 1			Georgia	5	A CONTROL OF THE PARTY OF THE P	
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	S PRIZ				COLLECTED	E0	N	100		Preservatives	vatives		N/A		_							
	SAMPLE ID Software		(G=GRAB C=C	STAR	le-	END	OTDELLOO TA									m only)			uez/, se	(N/A) eu		
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3	YGWA-41	\$	we e		Н	1	1	ιs	2	3			×	×	×		H		П	Ë		
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NOTE S	Arisons Surbs 300 0 (Cl. F. Sulfate)	V	N	1	/Arc	Arcadis 2	3/12/18	828	008	CA	Mr	5		410	Carli	/8	31/2	0800	_	_	-	
A III O	Арр III Мизак: Вогол 6020B, Са 6010D; Арр III 6020B; Zn, Ag Ni, V	186	12	J.	AUS	S	31/2	1/6	800,	Rym	4	11.1	71	Pra	- 1	14/	July 1	500,				
No.	App IV. Metals 6/208: Animony (Sb), Arsanic (As), Barium (Ba), Berylaun (Bs), Cadrasum (Cd), Chromium (Cn), Cobalt (Co), Lead (Pb), Lithum (Ur), Molyddenum (Mo), Selennum (Se), Totoka, Mercury (Hg).	Kapo	1/1	Jian	110	30	21/15		2		中	$ \tilde{i} $		1		16/30	12/	(J)				
				8		Name of	PRINT Name of SAMPLER:	2		9	1		9	R	L				o u	uo pe		
				1	SIGNA	TURE of	SIGNATURE of SAMPLER:	,	1/2/	H	1	27.2	3	DATE Signed:	lgned:	Ò	101	5	dW3		N/ bele beler (N/	(N/ BOCK BUDDIE SUN)
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CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B	1						Section C	Section C										Page .		_	ð	
Required	Chent Information:	Report To: S	SS	SCS Contacts					Attention:		Southern Co	S		1	١	Γ								
Address	Atlenta, GA		rcad	Arcadis Contacts	cts				Compa	Ž			$\ \ $						-					
T. C.	laucokar@contherno com	P P							Address: Pace Quote:	rote:						T		無機器		Regulat	DIA AGR	BUS		
Phone:	470.620.6176 Fax	Project Name:	1 1	Plant Yates Pooled Upgradient	s Poole	d Upgra	dient		Pace P	Pace Project Manager:	nager:	1 1	Nicole D'Oleo	8	П					Starts	State / Location			
Request	Requested Dua Date:	Project Number							Pace Profile #:	offie #:	10840		Γ	Mary Const	å	-	Ansha	Parameter Anshrafe Filhered (VIII)	A CVIMIS	3	Georgia	#107 Haller		
			_		3	OST SECTION				*	Preservatives	865		N/A							1			
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9	YGWA-17S	3	WG G	8/30	逐	1	1		5 2	6				×	×	×	+				م	PH: 4	89	3,4
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Anions S	Anions Suite 300.0 (Cl. F. Sulfate)	Lemma	X	1	N	/Arcadis	8/31	127	075	20	24	13	17	300	7	13		11/19	8	40		П		
App III MA	Acp III Metals: Boron 6020B, Ca 6010D; App IVI 6020B; Zn, Ag, Ni, V	1/1/1	12	1	9	1	19/1	14	(082	Ö	Chair	1/2	lim	7/1	25		7.	1/12	3	22				
App IV & Benyffum Lithium (L	App IV. Metais 6020B: Antimony (Sb), Arsenic (As), Banlum (Ba), Beoglium (Be), Cadmium (Cd), Chromium (Cf), Coball (Co), Lead (Pb), Libram (Li), Mobbdenum (Mo), Selemum (Se)	Lyan	7	Wolliam	7	face	3/81/	111	1/53		H	1	12		9		08-	3//2	9	2	1			
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CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be-completed accurately.

Section A		Section B					Section C	Ü								l			
Company:	Company: GA Power	Report To: SCS Contact	SCS Contact				hroke in	٥	:00				ſ			Page:	1	ŏ	7
Addese	V		S College	9			Auenno	ŀ	Southern Co.				Т						
Address	Alianta, GA	Copy Io: Ar	Arcadis Contacts	tacts			Compa	Company Name:					_						
Email To:	laucoker@southernco.com	urchase Order #					Address:	is of the second						National Section	A STATE OF THE REAL PROPERTY.	Regnifatory Agency	Agency		
Phone:	20.6176 Fex	Project Name:		Plant Yates Pooled Upgradient	1 Upgrad	ient	Pace P	Pace Project Manager.		Nicole D'Oleo	99	1	200.000		No. of Contract of	State / I mention	1	Annual Person	N. C. C. C. C. C. C. C. C. C. C. C. C. C.
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Anions Suite	Anions Suite 300.0 (Cl. F. Suifate)	200	7	1	/Arcadis	8/31/21	1003	7	HAN Hilling	124	22		1/1/2	1/20	1003	L			Γ
App (7) 6020E	App (II Metalis: Boron 6020B, Ca 6010D; App (II 6020B: Zn, Ag, NI, V	Kyan 1	Wellia	1	hill	11/11/18/	1153	1	H		1	4	3	22/15	C)				
App IV: Metals 6020B Beryllum (Be), Cadm Lithium (L), Molybder 7040A: Mercury (Hg)	App IV: Metats 6020B: Antimony (Sb), Arsenic (As), Barium (Ba), Baryllum (Be), Cadmium (Cd), Chromium (Cd), Cobat (Co), Lead (Pb), Lithium (Ll), Molydoenum (Mo), Selenium (Se)								>		-		+	7					
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				PR	MT Name	PRINT Name of SAMPLER:	Ma	8	Drest							o u	uo per		se
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						4) 51 5

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

Section A		Section B	1	8				so ,	Section C											0		4	-	
Requir	Cilent Information:	Required Project information:	Bet III	Contoo					Attention Court	South	Southern Co.	ļ								Page:		\downarrow	ŏ	
Company	GA Power	port 10.	30	Argadic Contacts	S			1	Comment Name	noc News		3												
Address	Atlanta, GA	Copy 10:	3	adis con	acts			1	ompany	Marino.						I						Communication of		l
Email To	laucoker@southemco.com	Purchase Order #:						4 14	Address: Pace Quote:	ió										Complete	Regulatory Agents	1		
Phone	520.6176 Fax	Project Name.		Plant Yat	es Poole	ates Pooled Upgradient	dient	4	Pace Project Manager:	ect Manag	3er.	Nicok	Nicole D'Oleo	9						State /	State / Location			200 Miles
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App III &	App III Metals; Boron 6020B, Ca 6010D; App I/I 6020B; Zn, Ag, Ni, V	S	ry	L	7	7	8/311	124	1603	n	182	4	1	. }	1	200	8/2	17/2	1005					
App IV: I Beryllun Lithium (7040A: N	App IV: Metals 6020B: Antimony (Sb), Arsenic (As), Bartum (Ba), Beryllum (Be), Cadmium (Cd), Chromium (Cr), Coball (Co), Lead (Pb), Lithium (Li), Moybodenum (Mo), Selenium (Se) 7040A: Mercury (Hg)	lyan	5	Willea	4-1	ľ'n	8/41/2	1	183	4	7	10	1		2		200	2/42	1/83	-				
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1	Pace
i	MERCE SWEET

DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt

Effective Date: 05/12/2022

Laboratory receiving samples:				
Asheville Eden Greenwood Hu	ntersville	Raleigh	Mech	Atlanta Kernersville
Sample Condition Client Name: Upon Receipt	50 10 4 0	Р	roject#:	MO#: 92623277
- GHIOW	c/			M: NMG Due Date: 09/22/22
Courier: ☐ Fed Ex ☐ UPS ☐ Commercial ☐ Dace	USPS Other:	Clie	nt C	LIENT: GA-GA Power
Custody Seal Present? Yes 100 Seals Inta	ect? Ye	s		Date/Initials Person Examining Contents: 4///22
Packing Material: Bubble Wrap Bubble Thermometer:	Bags Mo	one 🗌 Ot	ner	Biological Tissue Frozen? ☐Yes ☐No ☐N/A
IR Gun ID: 230	Type of Ice:	□Wet □BI	ie 🔲 Nor	, ne
Correction Factor:	(a 0			
Cooler Temp: Add/Subtract (*C)	6.0			should be above freezing to 6°C tamples on ice, cooling process
Cooler Temp Corrected (°C):	3			nas begun
USDA Regulated Soil (N/A, water sample) Did samples originate in a quarantine zone within the Unit	ed States: CA N	NY OF SC	Oid sam	nples originate from a foreign source (internationally,
(check maps)? Yes No	ica states. CA, I	ii, di ac		iples originate from a foreign source (internationally, ig Hawaii and Puerto Rico)? Yes No
				Comments/Discrepancy:
Chain of Custody Present?	■Yes □N		1.	
Samples Arrived within Hold Time?	□res □N		2.	
Short Hold Time Analysis (<72 hr.)?	□Yes □X	,	3.	
Rush Turn Around Time Requested?	Z9Y	lo N/A	4.	
Sufficient Volume?	ØYes □N	lo 🔲 N/A	5.	
Correct Containers Used?	Yes DN	lo N/A	6.	
-Pace Containers Used?	Pres ON	io N/A		
Containers Intact?	□res □N		7.	
Dissolved analysis: Samples Field Filtered?	□Yes □N	IO DATA	8.	
Sample Labels Match COC?	ØYes □N	lo □N/A	9.	
-Includes Date/Time/ID/Analysis Matrix:	V			
Headspace in VOA Vials (>5-6mm)?	□Yes □N	lo EN/A	10.	
Trip Blank Present?	□Yes □N		11.	
Trip Blank Custody Seals Present?	□Yes □N	lo N/A		
COMMENTS/SAMPLE DISCREPANCY		Control of the latest and the latest	W. 1919	Field Data Required? Yes No
	···		ot ID of split	containers:
CLIENT NOTIFICATION/RESOLUTION			-	pH Strip Lot# 10D4611
			-	
Person contacted:		Date/Time		
Project Manager SCURF Review:	***************************************			Date:
Project Manager SRF Review:				Date:

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Required Client Information: Company: GA Power Address: Atlanta, GA App N: Metals 60208: Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Bo), Cadmium (Cd), Chromium (Cr), Cobalt (Co), Lead (Pb), Libium (Li), Molyddenum (Mo), Selenium (Se) 7040A: Mercury (Hg) App III Metals: Boron 6020B, Ca 6010D: App VII 6020B; Zn, Ag, Ni, V unions Suite 300.0 (Cl. F. Sulfate) a ITEM # equested Due Date: 12 YGWA-1D YGWA-3I YGWA-2I YGWA-11 YGWA-40 YGWA-39 YGWA-3D 470.620.6176 Fax One Character per box. (A-Z, 0-91, -) Sample ids must be unique SAMPLE ADDITIONAL COMMENTS 6 MATRIX Dending Water Wass Water Product Sol/Solid OI Wipe Ar Other Required Project Information: Report To: SCS Contacts Copy To: Arcadis Contact Project Name: Lyan RELINQUISHED BY / AFFILIATION SCS Contacts Arcadis Contacts WG WG WG MATRIX CODE (see valid codes to left) 0 0 0 0 Millians ର ର SAMPLE TYPE (G=GRAB C=COMP) Plant Yates Pooled Upgradient 0 START 0916 SAMPLER NAME AND SIGNATURE COLLECTED To ch PRINT Name of SAMPLER: / /Arcadis SIGNATURE of SAMPLER: S The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed CHAIN-OF-CUSTODY / Analytical Request Document DATE 1 1 1 1 1 1 ENO 9,1/2 0 10 TIME 1 1 ı 1 1 1 DATE 12 0 SAMPLE TEMP AT COLLECTION Pace Project Manager. Pace Profile #: 1084 Attention: Sol 1056 ()I Ç Ç Ç # OF CONTAINERS Pace Quote: Address: Invoice information: Section C 0300 2 N 2 2 N 2 Unpreserved 2 H2SO4 HNO3 w ω w w w Southern Co Preservatives CHOS HCI NaOH るろう ACCEPTED BY I AFFILIATION Na2S2O3 Nicole D'Oleo Nillian Methanol Other **Analyses Test** Y/N App III / IV Metals × DATE Signed: CI, F, SO4 × × × Porce × × TDS (2540C) × × × × × × × × RAD 9315/9320 0 2/1/22 App i / II (gpysum only) 0 DATE accurately 2000 0800 TIME Regulatory Agency State / Location Page: TEMP in C Residual Chlorine (Y/N) 20 SAMPLE CONDITIONS 모모 Received on 모 웃 모 말 웃 모 모 (Y/N) Custody Sealed đ (Y/N) 60 Samples Intact (Y/N)

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Samples (V/V) ζ, SAMPLE CONDITIONS (N/A 50 200 cheroc V Received on (Y/N) H 품 품 Ä 품 품 Residual Chlorina (YM) Page: TEMP IN C 098 300 TIME CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT, All relevant fields must be completed accurately. Z DATE Signed: 9/1/2 DATE 1/8 (Aluo wnsAdb) II / I ddy × × 0266/2166 QAS × × × × × × × × × × × × FACE (2540C) ACCEPTED BY / AFFILIATION × × × × × × × × × × FOS '4 '10 App III/V Metals × × × × × × William. Analyses Test N/A Nicole D'Oleo Methanol Nazszoa 20 HOPN Pace Cuote: Pace Project Manager: Pace Profile #: 1084 ЮН invoice information EONH 3 n 3 3 m Company Name: PRINT Name of SAMPLER: CR. C. SIGNATURE of SAMPLER: DOLLARS H3204 TIME Address 0300 Unpreserved ~ ~ 7 ~ 8 N ~ S s S n 'n 2 s, # OF CONTAINERS 2 2 2 1122 SAMPLER NAME AND SIGNATURE 12/1 SAMPLE TEMP AT COLLECTION 7 DATE TIME I ı 1 1 Purchase Order #: Project Name: Plant Yates Pooled Upgradient Project Number: ONE M. Or weads END DATE A55 COLLECTED Pale 1 ţ RELINQUISHED BY / AFFILIATION 1537 TIME WG G 8/31 125 SCS Contacts Arcadis Contacts START (1)(1) we e 8/31 | DATE 9 9 9 M SAMPLE TYPE (G=GRAB C=COMP) 0 0 G O O O 0 - Mag ₩G WG WG MON NG MATRIX CODE (see valid codes to left) 29 ¥ ¥ ° 9 9 4 9 2 5 Section B App IV: Matais 6020B: Antimony (Sb), Assenic (As), Barium (Ba), Baylium (Ba), Baylium (Bu), Cadmium (Cd). Chromium (Cr). Cobalt (Co), Lead (Pb), Uthium (U), MotyGenum (Mo), Selenium (Se) 7040e. Mercury (Hg) MATRIX Detring Water Wash Water Wash Water Product SolfSolid OF Wipe Au Core ADDITIONAL COMMENTS SAMPLE ID One Character per box. (A-2, 0-9 / , .) Sample lds must be unique ě App III Metals: Boron 6020B, Ca 6010D; App III 6020B: Zn, Ag, Ni, V mions Suite 300.0 (Cl. F, Sulfate) 470.620.6176 Atlanta, GA YGWA-17S YGWA-18S YGWA-20S YGWA-14S YGWA-211 YGWA-5D YGWA-18I YGWA-301 YGWA-47 YGWA-5 YGWA-41 GWA-2 e 10 7 9 12 6 1 9 80 # MHL 2

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						SAMPLE	R NAME A	OF SAMPLE	TABLE IN I	$\sqrt{8}$	33	7		8	TE Sign			بر ا ا		Received on	Custody Sealed	(Y/N) Samples Intact	(N/A)

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

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Address:	Atlanta, GA	Copy To:		Arcadis Contacts	tacts			Š	Company Name:	ne:					Г	_					
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App III Meta App I/I 602	App III Metais: Boron 6020B, Ca 6010D; App I/I 6020B: Zn, Ag, Ni, V		Ma	3	1	4.5	27/1/6			Mar	M	1119.	ĭ	Pace		20/1/22		<u></u>			
App IV: Met Beryflum (E Lithium (Li), 7040A: Men	App IV: Metals 60208: Antimony (Sb), Atsenic (As), Banium (Ba), Beryflium (Bo), Cadmium (Cd), Chromium (Cr), Cobatt (Co), Lead (Pb), Lithium (L), Molybdenum (Mo), Selenium (Se) 7040A: Mercury (Hg)	sarium (Ba). It (Co), Lead (Pb).	Lian	M(11.	1/20	מני	2/1/15		550	-						- - - - - - - - - - 					
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Appendix B

Field Sampling Report

August 2022 Daily Calibration Log

Project Plant Yates

Field Staff: Mark Chest/ Jessica Ware/ Khalil Carson/ Jake Swanson/ David Prouty

Instrument Calibration
Date: 08/30/2022 Initial

Parameter	Units	Standard	SmarTROLL SN 925534 (Mark Chest)	SmarTROLL SN 509263 (Jessica Ware)	SmarTROLL SN 870001 (Khalil Carson)	SmarTROLL SN 925153 (Jake Swanson)	SmarTROLL SN 518546 (David Prouty)
DO	% saturation	100	100	100	100	100	100
Conductivity	us/cm	1413	1413	1409	1413	1409	1409
рН	S.U.	4.00	4.00	4.01	4.01	4.00	4.01
рН	S.U.	7.00	7.00	6.99	6.99	7.00	7.00
рН	S.U.	10.00	10.00	9.95	9.95	10.00	10.00
ORP	mV	220.0	220.0	220.0	220.0	228.3	226.8

Parameter	Units	Standard	Geotech (Mark Chest)	Geotech (Jessica Ware)	Geotech (Khalil Carson)	Geotech (Jake Swanson)	Geotech (David Prouty)
Turbidity	NTU	20.0	20.8	19.8	19.7	0.02	19.8
Turbidity	NTU	100	101	100	101	20.0	101
Turbidity	NTU	800	799	802	813	100	806
Turbidity	NTU	<0.10	0.08	0.02	0.02	801	0.1

Date: 08/30/2022 Time: Midday

Parameter	Units	Standard	SmarTROLL SN 925534 (Mark Chest)	SmarTROLL SN 509263 (Jessica Ware)	SmarTROLL SN 509271 (Khalil Carson)	SmarTROLL SN 925153 (Jake Swanson)	SmarTROLL SN 518546 (David Prouty)
DO	% saturation	100	100	100	100	100	100
Conductivity	us/cm	1409	1419	1409	1413	1409	1409
pН	S.U.	4.00	4.01	4.02	4.01	4.01	4.02
pН	S.U.	7.00	6.99	6.98	6.99	6.99	6.98
pН	S.U.	10.00	9.95	9.91	9.95	9.95	9.95
ORP	mV	220.0	220.0	220.0	220.0	220.0	220.2

Parameter	Units	Standard	Geotech (Mark Chest)	Geotech (Jessica Ware)	Geotech (Khalil Carson)	Geotech (Jake Swanson)	Geotech (David Prouty)
Turbidity	NTU	20.0	20.0	19.8	19.7	0.02	
Turbidity	NTU	100	98.2	100	98.8	20.0	
Turbidity	NTU	800	793	804	796	100	
Turbidity	NTU	<0.10	0.02	0.02	0.02	801	

Notes:

DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Quick Cal solution standard is dependant on temperature and will fluctuate

NA = Not Applicable

-- Calibration not performed

* Half day

August 2022 Daily Calibration Log

Project Plant Yates

Field Staff: Mark Chest/ Jessica Ware/ Khalil Carson/ Jake Swanson/ David Prouty

Instrument Calibration Date: 08/31/2022 Initial

Parameter	Units	Standard	SmarTROLL SN 925534 (Mark Chest)	SmarTROLL SN 509263 (Jessica Ware)	SmarTROLL SN 509271 (Khalil Carson)	SmarTROLL SN 925153 (Jake Swanson)	SmarTROLL SN 518546 (David Prouty)
DO	% saturation	100	100	100	100	100	100
Conductivity	us/cm	1413	1413	1409	1413	1409	1409
рН	S.U.	4.00	4.00	4.00	4.00	4.00	4.00
рН	S.U.	7.00	7.00	7.00	7.00	7.00	7.00
рН	S.U.	10.00	10.00	10.05	10.00	10.00	10.00
ORP	mV	220.0	220.0	220.0	220.0	220.0	232.0

Parameter	Units	Standard	Geotech (Mark Chest)	Geotech (Jessica Ware)	Geotech (Khalil Carson)	Geotech (Jake Swanson)	Geotech (David Prouty)
Turbidity	NTU	20.0	21.0	19.6	20.5	0.02	19.9
Turbidity	NTU	100	101	101	102	20.0	109
Turbidity	NTU	800	813	800	806	100	804
Turbidity	NTU	<0.10	0.02	0.02	0.04	801	0.02

Date: 08/31/2022 Time: Midday

Parameter	Units	Standard	SmarTROLL SN 925534 (Mark Chest)	SmarTROLL SN 509263 (Jessica Ware)	SmarTROLL SN 509271 (Khalil Carson)	SmarTROLL SN 925153 (Jake Swanson)	SmarTROLL SN 870001 (David Prouty)
DO	% saturation	100	NA*	100	100	100	100
Conductivity	us/cm	1409	NA*	1409	1413	1409	1409
pН	S.U.	4.00	NA*	4.01	4.01	4.02	4.01
pН	S.U.	7.00	NA*	6.98	6.99	6.98	6.99
pН	S.U.	10.00	NA*	9.95	9.95	9.91	9.97
ORP	mV	220.0	NA*	220.0	220.0	220.0	223.3

Parameter	Units	Standard	Geotech (Mark Chest)	Geotech (Jessica Ware)	Geotech (Khalil Carson)	Geotech (Jake Swanson)	Geotech (David Prouty)
Turbidity	NTU	20.0	NA*	19.5	18.9	0.02	-
Turbidity	NTU	100	NA*	99.9	99.1	20.0	
Turbidity	NTU	800	NA*	796	792	100	1
Turbidity	NTU	<0.10	NA*	0.02	0.02	801	

DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Quick Cal solution standard is dependant on temperature and will fluctuate

NA = Not Applicable

-- Calibration not performed

* Half day

August 2022 Daily Calibration Log

Project Plant Yates

Field Staff: Mark Chest/ Jessica Ware/ Khalil Carson/ Jake Swanson/ David Prouty

Instrument Calibration
Date: 09/01/2022 Initial

Parameter	Units	Standard	SmarTROLL SN 925534 (Mark Chest)	SmarTROLL SN 509263 (Jessica Ware)	SmarTROLL SN 509271 (Khalil Carson)	SmarTROLL SN 925153 (Jake Swanson)	SmarTROLL SN 518546 (David Prouty)
DO	% saturation	100	100	100	100	100	100
Conductivity	us/cm	1413	1413	1409	1413	1409	1409
pН	S.U.	4.00	4.00	4.00	4.01	4.00	4.00
pН	S.U.	7.00	7.00	7.00	6.99	7.02	7.02
pН	S.U.	10.00	10.00	10.00	9.95	10.05	10.05
ORP	mV	220.0	220.0	220.0	220.0	220.0	233.9

Parameter	Units	Standard	Geotech (Mark Chest)	Geotech (Jessica Ware)	Geotech (Khalil Carson)	Geotech (Jake Swanson)	Geotech (David Prouty)
Turbidity	NTU	20.0	20.4	20.3	20.7	0.02	19.8
Turbidity	NTU	100	101	100	101	20.0	103
Turbidity	NTU	800	803	801	803	100	802
Turbidity	NTU	<0.10	0.02	0.02	0.09	801	0.02

Date: 09/01/2022 Time: Midday

Parameter	Units	Standard	SmarTROLL SN 925534 (Mark Chest)	SmarTROLL SN 509263 (Jessica Ware)	SmarTROLL SN 509271 (Khalil Carson)	SmarTROLL SN 925153 (Jake Swanson)	SmarTROLL SN 518546 (David Prouty)
DO	% saturation	100	NA*	100	100	100	NA*
Conductivity	us/cm	1409	NA*	1409	1413	1409	NA*
pН	S.U.	4.00	NA*	4.01	4.01	4.01	NA*
pН	S.U.	7.00	NA*	6.99	6.99	6.99	NA*
pН	S.U.	10.00	NA*	10.00	9.95	9.95	NA*
ORP	mV	220.0	NA*	220.0	220.0	220.0	NA*

Parameter	Units	Standard	Geotech (Mark Chest)	Geotech (Jessica Ware)	Geotech (Khalil Carson)	Geotech (Jake Swanson)	Geotech (David Prouty)
Turbidity	NTU	20.0	NA*	20.3	19.8	0.02	NA*
Turbidity	NTU	100	NA*	101	97.3	20.0	NA*
Turbidity	NTU	800	NA*	806	797	100	NA*
Turbidity	NTU	<0.10	NA*	0.02	0.02	801	NA*

Notes:

DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated

Quick Cal solution standard is dependant on temperature and will fluctuate

NA = Not Applicable

-- Calibration not performed

* Half day



Client:				Georgia Power				
Project Locat	ion:			AP-1				
Date:				8/29/2022				
Sampler:			Jake Swanson					
Equipment:				water probe				
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	Comments			
YGWC-44	8/29/2022	10:31:00	49.77	89.85				
YGWC-45	8/29/2022	10:38:00	22.28	73.80				
PZ-09S	8/29/2022	10:42:00	17.35	57.00				
PZ-09I	8/29/2022	10:45:00	17.57	77.00				
YGWC-46A	8/29/2022	10:55:00	38.48	79.22				
PZ-53	8/29/2022	11:05:00	38.36	72.00				
PZ-10I	8/29/2022	11:13:00	13:00 13.30 46.50					
PZ-10S	8/29/2022	11:13:00	7.37	16.30				



Client:			Georgia Power						
Project Locat	ion:		AP-1						
Date:			8/29/2022						
Sampler:			David Prouty						
Equipment:				water probe					
Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	Comments				
YGWC-52	8/29/2022	10:22:00	10:22:00 37.24 70.79						
YGWA-47	8/29/2022	10:23:00	28.16	59.19					



Updated: 8/31/2022 11:55:51

AM -04:00

Project Number	30143608	}	Well ID	YGWC-	44			Date	08/31/2	022
Project Location	AP-1			Weathe	er(°F) 78.8 degree	es F and Cle	ar. The wind is	blowing N at	10.3 mph	
Measuring Pt. Description	Top of Inn	er Casing	Screen Setting (ft-bmp	79.95	79.95 Casing Diameter (in) 2			Well Casing Material	PVC	
Static Water Level (ft-bmp)	49.78		Total Depth (ft- bmp)	89.85	Water Column(ft)	Water 40.07		Gallons in Well	6.51	
MP Elevation	758.35	Pump Intake (ft- bmp)		83	Purge Met	hod Low-Flo	ow	Sample Method	Grab	
Sample Time	11:25	Well Volumes Purged		0.08	Sample ID	YGWC-	-44	Sampled by	David F	Prouty
Purge Start	11:00	11:00 Gallons Purged			Replicate/ Code No.			Color	Clear	
Purge End	11:49									
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	ure	Redox (mV)
11:00:00	00:00	100	51.78	5.68	453.97	0.10	0.63	19.9		-49.02
11:05:00	05:00	100	51.85	5.68	455.24	0.02	0.74	20.5		-25.28
11:10:00	10:00	100	51.85	5.73	454.50	0.02	0.80	21.0		-6.30
11:15:00	15:00	100	51.85	5.75	455.55	1.14	0.85	21.7		7.51
11:20:00	20:00	100	51.86	5.77	455.80	0.31	0.95	22.1		19.38
								_		
Constituent Sam	pied			Container			Number		reservat	ive
Metals				250 mL Plastic	 -		1		NO3	
RAD Chem				1L Plastic		2			NO3	
TDS				500 mL Plastic	· 		1		one	
Anions				250 mL Plastic			1		one	
Comments:	None									
Well Casing Volu	me Conver	sion								
Well diameter (inc	hes) = galloi	ns per foot	1 = 0.04 1.5 = 0 1.25 = 0.06 2 =		3.5 = 0.50 6 = 1.47 4 = 0.65					
Well Information										
Well Location	n:				Well Locked at Arr	ival:				
Condition of Wel	andition of Well:			W	Well Locked at Departure:			_		
Well Completion: NA				Key Number To Well: NA						

Condition of Well:

Well Completion: NA



Updated: 8/31/2022 1:26:36 PM

-04:00

Project Number	er 30052922		Well ID	YGWC-	52			Date	08/31/2022
Project Location	on AP-1			Weathe	r(°F) 77.0 degre	es F and Clea	ar. The wind is	blowing N at 9	9.2 mph.
Measuring Pt. Description	Top of Inn	er Casing	Screen Setting (ft-bmp	60.79	Casing Diameter	(in) ²		Well Casing Material	PVC
Static Water Level (ft-bmp)	36.62		Total Depth (ft- bmp)	70.79	Water Column(ft	Water Column(ft) 34.17		Gallons in Well	5.55
MP Elevation	755.86	755.86 F		it- 65	Purge Met	thod Low-Flo	w	Sample Method	Low-Flow
Sample Time	11:20		Well Volumes Purged	0.23	Sample ID	YGWC-	52	Sampled by	Jake Swanson
Purge Start	10:50		Gallons Purge	d 1.25	Replicate/ Code No.	AP-1-EE -FB-1	3-1 and AP-1	Color	Clear
Purge End	11:05								
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	rure Redox (mV)
10:50:00	00:00	150	36.62	5.89	275.07	3.12	3.84	30.0	171.86
10:55:00	05:00	200	37.86	5.46	280.46	2.85	2.53	24.0	196.88
11:00:00	10:00	200	37.87	5.54	280.24	2.44	2.36	23.4	197.02
11:05:00	15:00	200	37.85	5.61	283.20	2.15	2.22	25.6	196.10
11:10:00	20:00	200	37.87	5.58	284.30	1.50	2.14	29.5	196.57
11:15:00	25:00	200	37.83	5.58	273.41	2.04	2.31	25.8	198.82
Constituent Sa	ampled			Container			Number	P	reservative
RAD Chem				1L Plastic			2	Н	NO3
Vietals				250 mL Plastic	;		1	— <u>н</u>	NO3
Chloride,F, SO	4			250 mL Plastic	;		1		one
TDS				500 mL Plastic	;		1	N	one
Comments:	None							_	
Well Casing Vo	olume Conver	sion							
Well diameter (i	inches) = gallo	ns per foot	1 = 0.04 1.5 = 0 1.25 = 0.06 2 =		3.5 = 0.50 6 = 1.47 4 = 0.65				
Well Information	on								
Well Locat	tion:				Well Locked at Ar	rival:			
									=

Well Locked at Departure:

Key Number To Well: NA



Updated: 8/31/2022 4:19:38 PM

-04:00

30143608 Well ID YGWC-45 Date 08/31/2022 **Project Number** Project Location AP-1 Weather(°F) 86.4 degrees F and Clear. The wind is blowing NW at 9.2 mph. **Well Casing** Measuring Pt. Screen Casing PVC Top of Inner Casing 63.8 Description Material Setting (ft-bmp) Diameter (in) Total Depth (ft-**Static Water** Gallons in Water 73.8 22.28 51.52 8.37 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample **MP Elevation** 719.36 69 Purge Method Low-Flow Grab bmp) Method **Well Volumes** Sample Time 15:50 0.09 Sample ID YGWC-45 Sampled by **David Prouty** Purged Replicate/ **Purge Start Gallons Purged** 0.79 15:17 Color Clear Code No. **Purge End** 16:12

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
15:17:00	00:00	100	24.8	6.37	483.54	1.97	0.57	23.2	-4.36
15:22:00	05:00	100	24.63	6.33	480.28	0.69	0.40	23.2	-6.83
15:27:00	10:00	100	24.62	6.36	478.58	0.02	0.33	23.0	-12.49
15:32:00	15:00	100	24.62	6.44	478.70	0.18	0.31	22.9	-19.71
15:37:00	20:00	100	24.6	6.50	476.89	0.02	0.29	23.0	-26.53
15:42:00	25:00	100	24.59	6.53	472.48	0.02	0.28	22.9	-31.83
15:47:00	30:00	100	24.58	6.56	466.57	0.31	0.27	22.3	-34.37

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

Comments: Poor tubing connection resulted in air bubbles and high DO. Restarted purge.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot $1 = 0.04 \ 1.5 = 0.09 \ 2.5 = 0.26 \ 3.5 = 0.50 \ 6 = 1.47 \ 1.25 = 0.06 \ 2 = 0.16 \ 3 = 0.37 \ 4 = 0.65$

Well Information			
Well Location:		Well Locked at Arrival:	
Condition of Well:		Well Locked at Departure:	
Well Completion:	NA	Key Number To Well:	NA



Updated: 8/31/2022 7:12:51 PM

-04:00

Project Number 30052922 Well ID YGWC-46A Date 08/31/2022 Project Location AP-1 Weather(°F) 84.6 degrees F and Clear. The wind is blowing N/NW at 6.9 mph. Well Casing Measuring Pt. Screen Casing PVC Top of Inner Casing 69.22 Description Material Setting (ft-bmp) Diameter (in) Total Depth (ft-Static Water Gallons in Water 79.22 40.6 38.62 6.6 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample 74 Purge Method Low-Flow **MP Elevation** 733.04 Low-Flow bmp) Method **Well Volumes** Sample Time 14:50 0.51 Sample ID YGWC-46A Sampled by Jake Swanson Purged Replicate/ **Purge Start Gallons Purged** 3.37 AP-1-DUP-1 Color Clear 13:19 Code No.

Purge End 14:44

urge Lilu	14.44								
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
13:19:00	00:00	150	38.62	7.39	756.68	1.49	6.83	35.0	195.55
13:24:00	05:00	150	39.83	6.99	958.30	1.28	0.88	25.2	-96.70
13:29:00	10:00	150	40.31	7.17	957.86	0.81	0.26	23.9	-114.12
13:34:00	15:00	150	40.53	7.21	1034.85	0.70	0.19	23.5	-121.49
13:39:00	20:00	150	40.81	7.19	1012.94	0.32	0.17	23.4	-115.41
13:44:00	25:00	150	41	7.12	968.28	0.55	0.17	23.2	-103.62
13:49:00	30:00	150	41.21	7.06	914.42	0.46	0.17	23.2	-92.54
13:54:00	35:00	150	41.23	7.00	890.84	1.78	0.18	23.8	-83.68
13:59:00	40:00	150	41.23	6.96	862.31	1.03	0.16	23.8	-76.80
14:04:00	45:00	150	41.24	6.89	814.72	0.43	0.21	23.8	-68.26
14:09:00	50:00	150	41.24	6.83	799.69	0.89	0.25	23.9	-60.20
14:14:00	55:00	150	41.23	6.79	839.40	1.05	0.25	23.9	-55.20
14:19:00	00:00	150	41.26	6.77	792.18	1.11	0.26	23.9	-49.76
14:24:00	05:00	150	41.27	6.77	874.50	0.71	0.26	23.7	-46.26
14:29:00	10:00	150	41.29	6.78	842.04	0.65	0.28	24.0	-44.99
14:34:00	15:00	150	41.34	6.82	812.21	1.70	0.26	23.8	-44.77
14:39:00	20:00	150	41.34	6.84	797.53	0.52	0.25	24.1	-44.24
14:44:00	25:00	150	41.34	6.87	782.72	0.93	0.24	24.3	-45.25

Constituent Sampled	Container	Number	Preservative	
RAD Chem	1L Plastic	2	HNO3	
Metals	250 mL Plastic	1	HNO3	
Chloride,F, SO4	250 mL Plastic	1	None	
TDS	500 mL Plastic	1	None	



Proje	ct Location:	AP-1			
Pern	nit Number:				
	Well ID:	YGWC-44			
Perso	on Gauging:	Jake Swanson			
	Date:	8/29/2022			
	Time:	10:31:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		\square	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective Ca	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	Ø		
5	Sampling: Gi	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved	Ø		
	С	Does the well require redevelopment (low flow, turbid)?		\square	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
	Cut vegetation	on.			
8	Date by whe	n corrective actions are needed:			
	-				



Proje	ct Location:	AP-1			
Perm	nit Number:				
	Well ID:	YGWC-45			
Perso	on Gauging:	Jake Swanson			
	Date:	8/29/2022			
	Time:	10:38:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		Ø	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective Ca	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	\square		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	\square		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	\square		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	\square		
	С	Is the well properly vented for equilibration of air pressure?	\square		
	d	Is the survey point clearly marked on the inner casing?	\square		
	е	Is the depth of the well consistent with the original well log?	\square		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	Ø		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	\square		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved	\square		
	С	Does the well require redevelopment (low flow, turbid)?		\square	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
8	Date by whe	n corrective actions are needed:			



Project Location:	AP-1			
Permit Number:				
Well ID:	PZ-09S			
Person Gauging:	Jake Swanson			
Date:	8/29/2022			
Time:	10:42:00			
		Yes	No	N/A
1 Location Ide	entification:			
a	Is the well visible and accessible?	☑		
b	Is the well properly identified with the correct well ID?	☑		
С	Is the well in a high traffic area and does the well require protection from traffic?			
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	☑		
2 Protective C	asing:			
а	Is the protective casing free from apparent damage and able to be secured?	Ø		
b	Is the casing free of degradation or deterioration?	Ø		
С	Does the casing have a functioning weep hole?	Ø		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3 Surface Pad				
а	Is the well pad in good condition (not cracked or broken)?	V		
b	Is the well pad sloped away from the protective casing?	V		
С	Is the well pad in complete contact with the protective casing?	\square		
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	Ø		
е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4 Internal Cas	ing			
а	Does the cap prevent entry of foreign material into the well?	V		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
С	Is the well properly vented for equilibration of air pressure?	V		
d	Is the survey point clearly marked on the inner casing?	V		
е	Is the depth of the well consistent with the original well log?	Ø		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	\square		
5 Sampling: G	roundwater Wells Only:			
a	Does well recharge adequately when purged?	Ø		
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved			\square
С	Does the well require redevelopment (low flow, turbid)?		\square	
6 Based on yo	our professional judgement, is the well construction / location:			
,	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	\square		
	and 2) comply with the applicable regulatory requirements?	Ø		
7 Corrective a	ctions as needed, by date:			
Cut vegetati	·	1		-
3				
8 Date by whe	en corrective actions are needed:			



Proje	ct Location:	AP-1			
Perm	nit Number:				
	Well ID:	PZ-09I			
Perso	on Gauging:	Jake Swanson			
	Date:	8/29/2022			
	Time:	10:45:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?	Ø		
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective Ca	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	\square		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	\square		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	\square		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	\square		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	\square		
	С	Is the well properly vented for equilibration of air pressure?	\square		
	d	Is the survey point clearly marked on the inner casing?	\square		
	е	Is the depth of the well consistent with the original well log?	\square		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	Ø		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	\square		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved			\square
	С	Does the well require redevelopment (low flow, turbid)?		\square	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
8	Date by whe	n corrective actions are needed:			



Proje	ct Location:	AP-1			
	nit Number:				
	Well ID:	YGWC-46A			
Pers	on Gauging:	Jake Swanson			
	Date:	8/29/2022			
	Time:	10:55:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	а	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		\square	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective C	asing:			
	а	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	☑		
	С	Is the well pad in complete contact with the protective casing?	☑		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	☑		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	☑		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑		
	С	Is the well properly vented for equilibration of air pressure?	☑		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	☑		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	Ø		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	☑		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved	☑		
	С	Does the well require redevelopment (low flow, turbid)?		V	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
8	Date by whe	n corrective actions are needed:			



Proje	ct Location:	AP-1			
	nit Number:				
	Well ID:	PZ-53			
Pers	on Gauging:	Jake Swanson			
	Date:	8/29/2022			
	Time:	11:05:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	а	Is the well visible and accessible?	☑		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		\square	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective C	asing:			
	а	Is the protective casing free from apparent damage and able to be secured?	☑		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	☑		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	☑		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	☑		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	☑		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	☑		
	d	Is the survey point clearly marked on the inner casing?	☑		
	е	Is the depth of the well consistent with the original well log?	☑		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	Ø		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved			
	С	Does the well require redevelopment (low flow, turbid)?		\square	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
	Cut vegetati	on			
8	Date by whe	n corrective actions are needed:			



Proje	ct Location:	AP-1			
_	nit Number:				
	Well ID:	PZ-10I			
Perso	on Gauging:	Jake Swanson			
	Date:	8/29/2022			
	Time:	11:13:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	\square		
	b	Is the well properly identified with the correct well ID?	\square		
	С	Is the well in a high traffic area and does the well require protection from traffic?		\square	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective Ca	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	Ø		
	e	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	e	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	Ø		
5	Sampling: Gi	roundwater Wells Only:			
	а	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved			☑
	С	Does the well require redevelopment (low flow, turbid)?		\square	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
	Cut vegetation	on and ants			
8	Date by whe	n corrective actions are needed:			
	-				



Proje	ect Location:	AP-1			
Perr	nit Number:				
	Well ID:	PZ-10S			
Pers	on Gauging:	Jake Swanson			
	Date:	8/29/2022			
	Time:	11:13:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	а	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		Ø	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective Ca	asing:			
	а	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	☑		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	а	Is the well pad in good condition (not cracked or broken)?	☑		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	☑		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ng			
	а	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	Ø		
5	Sampling: G	roundwater Wells Only:			
	а	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved			Ø
	С	Does the well require redevelopment (low flow, turbid)?		Ø	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
	Cut vegetati	on and ants			
8	Date by whe	n corrective actions are needed:			



Proje	ect Location:	AP-1			
Perr	nit Number:				
	Well ID:	YGWC-52			
Pers	on Gauging:	David Prouty			
	Date:	8/29/2022			
	Time:	10:22:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	☑		
	b	Is the well properly identified with the correct well ID?	☑		
	С	Is the well in a high traffic area and does the well require protection from traffic?		Ø	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective Ca	asing:			
	а	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	Ø		
5	Sampling: G	roundwater Wells Only:			
	а	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved			V
	С	Does the well require redevelopment (low flow, turbid)?		Ø	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
	Cut vegetati	on			
8	Date by whe	n corrective actions are needed:			

Upgradient Wells

August 2022



Updated: 8/31/2022 7:46:53 PM

-04:00

Project Number 30053438 Well ID YGWA-4I Date 08/31/2022 **Project Location** AMA AP-3, A, B and B' Weather(°F) 80 °F, Sunny, winds at mph. **Well Casing** Measuring Pt. Screen Casing PVC Top of Inner Casing 38.51 Description Material Setting (ft-bmp) Diameter (in) Total Depth (ft-**Static Water** Gallons in Water 4.04 48.81 23.95 24.86 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample 45 Purge Method Low-Flow **MP Elevation** 784.21 Low-Flow bmp) Method **Well Volumes** Sample Time 15:37 0.39 Sample ID YGWA-4I Sampled by Jessica Ware Purged Replicate/ **Purge Start Gallons Purged** 1.59 Clear 14:54 Color Code No. **Purge End** 16:09

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
14:54:00	00:00	150	23.95	7.44	130.83	1.30	7.32	22.7	171.68
14:59:00	05:00	150	24.59	5.76	135.49	0.75	6.11	21.8	192.79
15:04:00	10:00	150	24.56	5.61	146.32	0.40	4.64	21.7	192.23
15:09:00	15:00	150	24.58	5.60	148.00	0.18	3.90	21.0	194.40
15:14:00	20:00	150	24.61	5.58	145.41	0.18	4.00	20.7	205.39
15:19:00	25:00	150	24.61	5.59	146.24	0.10	5.83	20.4	210.12
15:24:00	30:00	150	24.59	5.54	146.21	0.39	2.02	19.6	202.49
15:29:00	35:00	150	24.63	5.50	146.96	0.27	1.95	19.7	205.75
15:34:00	40:00	150	24.64	5.50	146.94	0.22	1.95	19.6	207.02

Constituent Sampled	Container	Number	Preservative
RAD Chem	1L Plastic	2	HNO3
Metals	250mL HDPE Plastic	1	HNO3
TDS	500 mL Plastic	1	None
CI, F, SO4	250 mL Plastic	1	None

Comments: Sampled

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47

Well Information		
Well Location:	Well Locked at Arrival:	
Condition of Well:	Well Locked at Departure:	
Well Completion: NA	Key Number To Well:	NA



Updated: 8/30/2022 11:20:20 AM -04:00

								AM -04:00	
Project Number	30053438		Well ID	YGWA-	51			Date	08/30/2022
Project Location	n AMA AP-3	B, A, B and B'		Weathe	r(°F) 72.9 deg	rees F and Fog	/Mist. The wind	l is blowing un	defined at 0.0 mph.
Measuring Pt. Description	Top of Inn	er Casing	Screen Setting (ft-bmp) 48.64	Casing Diamete	r (in) ²		Well Casing Material	PVC
Static Water Level (ft-bmp)	20.65		Total Depth (ft- bmp)	58.94	Water Column	(ft) 38.29		Gallons in Well	6.22
MP Elevation	784.54		Pump Intake (ft bmp)	53	Purge M	ethod Low-Flo		Sample Method	Low-Flow
Sample Time	10:52		Well Volumes Purged	0.26	Sample	ID YGWA-	51	Sampled by	Mark Chest
Purge Start	10:19		Gallons Purgeo	i 1.60	Replicat Code No		ı	Color	Clear
Purge End	10:49					-			
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	ure Redox (mV)
10:19:00	00:00	200	20.65	5.66	85.76		6.54	18.0	201.34
10:19:00	00:20	200	20.65	5.36	82.81		6.50	17.4	210.79
10:24:00	05:20	200	21.65	4.90	82.41	0.55	6.13	17.1	232.62
10:29:00	10:20	200	21.66	4.75	81.15	0.92	6.12	17.1	243.71
10:34:00	15:20	200	21.65	4.82	82.39	1.03	6.19	17.2	240.12
10:39:00	20:20	200	21.65	5.05	82.15	1.72	6.16	17.3	233.32
10:44:00	25:20	200	21.67	5.01	82.90	0.43	6.17	17.4	238.95
10:49:00	30:20	200	21.67	5.00	82.09	0.41	6.17	17.4	240.28
Constituent Sar	mpled			Container			Number	P	reservative
RAD Chem				1L Plastic			2	Н	NO3
TDS				1L Plastic		_	1		one
Metals				250 mL Plastic	;	_	1	– Н	NO3
CI, F, SO4				250 mL Plastic	;	_	1	N	one
Comments:	None					_			
Well Casing Vol	ume Convers	sion							
Well diameter (in	ches) = gallor	ns per foot	1 = 0.04 1.5 = 0 1.25 = 0.06 2 =		3.5 = 0.50 6 = 1.4 4 = 0.65	7			
Well Information	n								
Well Location	on:				Well Locked at	Arrival:			
Condition of We	ell:			W	ell Locked at Dep	arture:			_
Well Completion	on: NA				Key Number To	Well: NA			_

Well Completion: NA



Updated : 8/30/2022 3:01:48 PM -04:00

								-04:00		
Project Numbe	r 30053438	3	Well ID	YGWA-5	5D			Date	08/30/2022	
Project Location	on AMA AP-	3, A, B and B'		Weathe	r(°F) 74.5 degre	es F and Clou	udy. The wind	nd is blowing undefined at 0.0 mph.		
Measuring Pt. Description	Top of Inr	ner Casing	Screen Setting (ft-bmp	78.83	Casing Diameter ((in) ²		Well Casing Material	PVC	
Static Water Level (ft-bmp)	21.96		Total Depth (ft- bmp)	129.13	Water Column(ft) 107.17		Gallons in 17.41		
MP Elevation	784.53		Pump Intake (ft bmp)	t - 124	Purge Met	hod Low-Flo	W	Sample Method		
Sample Time	12:05		Well Volumes Purged	0.12	Sample ID	YGWA-	5D	Sampled by	Mark Chest	
Purge Start	11:25		Gallons Purgeo	2.14	Replicate/ Code No.			Color	Clear	
Purge End	12:00									
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	eure Redox (mV)	
11:25:00	00:00	200	21.96	6.77	198.80		4.08	20.0	184.74	
11:26:00	00:17	200	21.96	6.80	198.26		2.67	19.2	34.77	
11:31:00	05:17	200	22.99	7.46	223.19	0.02	0.14	17.9	-206.55	
11:36:00	10:17	200	22.95	7.40	211.77	0.03	0.18	18.0	-225.81	
11:41:00	15:17	200	22.95	7.36	208.20	0.02	0.20	18.3	-227.48	
11:41:00	15:28	200	22.95	7.41	208.28	0.02	0.20	18.3	-229.94	
11:46:00	20:28	200	22.95	7.40	206.51	0.02	0.21	18.0	-223.33	
11:51:00	25:28	200	22.95	7.40	206.23	0.02	0.17	18.2	-220.02	
11:56:00	30:28	200	22.95	7.40	205.72	0.02	0.19	18.2	-214.34	
12:01:00	35:28	200	22.95	7.40	205.32	0.02	0.18	18.3	-211.56	
12:06:00	40:28	200	22.95	7.40	205.22	0.02	0.19	18.3	-210.48	
Constituent Sa	mpled			Container			Number	P	reservative	
RAD Chem	-			1L Plastic			2	Н	NO3	
ΓDS				500 mL Plastic			1		one	
Metals				250 mL Plastic			1		NO3	
Cl, F, SO4				250 mL Plastic			1		one	
CI, F, SO4 Comments:	None			250 mL Plastic			1	N	lone	
Well Casing Vo	lume Conver	sion								
Well diameter (in			1 = 0.04 1.5 = 0 1.25 = 0.06 2 =		3.5 = 0.50 6 = 1.47 = 0.65					
Well Information	on									
Well Locati	on:				Well Locked at Arr	rival:				
Condition of W					ell Locked at Depart				_	

Key Number To Well: NA



Updated : 9/1/2022 10:02:42 PM -04:00

Project Number	30053438	3	Well ID	YGWA-	17S			Date	08/30/202	2
Project Location	AMA AP-	3, A, B and B'		Weathe	r(°F) 32 °C, O\	vercast, winds	at mph.			
Measuring Pt. Description	Top of Inr	ner Casing	Screen Setting (ft-bm)	29.65	Casing Diameter	r (in) ²		Well Casing Material	PVC	
Static Water Level (ft-bmp)	13.33		Total Depth (ft bmp)	39.85	Water Column(ft) 26.52		Gallons in Well	4.31	
MP Elevation	783.05		Pump Intake (i bmp)	ft- 35	Purge Mo	ethod Low-Flo		Sample Method	Low-Flow	
Sample Time	15:40		Well Volumes Purged	0.31	Sample I	D YGWA-	178	Sampled by	Jessica W	are
Purge Start	15:11		Gallons Purge	d 1.32	Replicate Code No			Color	Clear	
Purge End	16:01									
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	ure	Redox (mV)
15:11:00	00:00	200	13.33	5.18	92.71		2.71	22.6		198.73
15:16:00	05:00	200	13.58	4.89	91.82	1.08	1.61	21.5		209.01
15:21:00	10:00	200	13.59	4.81	91.68	0.91	1.50	21.0		214.69
15:26:00	15:00	200	13.62	4.73	91.72	0.99	1.53	20.9		222.92
15:31:00	20:00	200	13.61	4.70	91.70	1.51	1.49	20.6		225.77
15:36:00	25:00	200	13.62	4.68	91.28	1.47	1.48	20.5		228.01
Constituent Sam	pled			Container			Number	Р	reservative	
Metals				250mL HDPE	Plastic		1	Н	NO3	
Cl, F, SO4				250 mL Plastic	;	_	1	N	one	
TDS				500 mL Plastic	;	_	1	N	one	
RAD Chem				1L Plastic		-	2	 H	NO3	
Comments:	Commission									
••••••	Sampled									
Well Casing Volu		sion								
Well Casing Volu	ıme Conver		1 = 0.04 1.5 = 0 1.25 = 0.06 2 =		3.5 = 0.50 6 = 1.47 4 = 0.65	,				
Well Casing Volu	ume Conver					,				
Well Casing Volu	ume Conver									
Well Casing Volu Well diameter (ind	ume Conver			0.16 3 = 0.37 4	1 = 0.65	ırrival:			-	

Well Information

Well Location:

Well Completion: NA

Condition of Well:



Updated: 9/1/2022 10:02:47 PM

Measuring Pt. Description Top of Inner Casing Setting (ft-bmp) Setting (ft-bmp) Screen Setting (ft-bmp) 29.97 Casing Diameter (i Static Water Level (ft-bmp) 21.48 Total Depth (ft- bmp) Sump Intake (ft-	19.40	at mph. V N C V V S N 18S S	Well Casing Material Gallons in Well Sample Method Sampled by Color Temperat °C 22.5 19.9	PVC 3 Low-Flow Jessica Ware Clear Redox (mV) 152.66
	n) 2 18.49 nod Low-Flo YGWA- Turbidity (NTU) 0.81	Dissolved Oxygen (mg/L) 8.20	Material Gallons in Well Sample Method Gampled by Color Temperat °C 22.5	3 Low-Flow Jessica Ware Clear Redox (mV) 152.66
Description Description	18.49 nod Low-Flo YGWA- Turbidity (NTU) 0.81	Dissolved Oxygen (mg/L) 8.20	Material Gallons in Well Sample Method Gampled by Color Temperat °C 22.5	3 Low-Flow Jessica Ware Clear Redox (mV) 152.66
Depth to Water (in) Depth to Water (in) Depth to Water (in) Depth to Water (in) Depth to Water (in) Depth to Water (in) Depth to Water (in) Depth to Water (in) Depth to Units Depth to Units	YGWA- Turbidity (NTU) 0.81	Dissolved Oxygen (mg/L) 8.20	Well Sample Method Sampled by Color Temperat °C 22.5	Low-Flow Jessica Ware Clear Redox (mV) 152.66
Sample Time 10:10 Well Volumes 0.40 Sample ID	YGWA- Turbidity (NTU) 0.81	Dissolved Oxygen (mg/L) 8.20	Method Sampled by Color Temperat °C 22.5	Jessica Ware Clear Redox (mV) 152.66
Purge Start 09:37 Gallons Purged 1.19 Replicate/Code No. Purge End 10:39 Time Elapsed Minutes (mL/min) Depth to Water (in) Specific Conductivity (µS/cm) 09:37:00 00:00 150 21.92 6.54 65.89 09:42:00 05:00 150 21.92 5.35 51.04 09:47:00 10:00 150 21.9 5.27 50.58 09:52:00 15:00 150 21.93 5.22 49.98 09:57:00 20:00 150 21.98 5.18 49.93	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C 22.5	Clear Redox (mV) 152.66
Purge End 10:39 Time Total Elapsed Minutes Rate (mL/min) Depth to Water (in) pH (standard units) Specific Conductivity (μS/cm) 09:37:00 00:00 150 21.92 6.54 65.89 09:42:00 05:00 150 5.35 51.04 09:47:00 10:00 150 21.9 5.27 50.58 09:52:00 15:00 150 21.93 5.22 49.98 09:57:00 20:00 150 21.98 5.18 49.93	(NTU) 0.81	Dissolved Oxygen (mg/L) 8.20	Temperat °C	Redox (mV)
Time Total Elapsed Minutes Rate (mL/min) Depth to Water (in) pH (standard units) Specific Conductivity (μS/cm) 09:37:00 00:00 150 21.92 6.54 65.89 09:42:00 05:00 150 5.35 51.04 09:47:00 10:00 150 21.9 5.27 50.58 09:52:00 15:00 150 21.93 5.22 49.98 09:57:00 20:00 150 21.98 5.18 49.93	(NTU) 0.81	Oxygen (mg/L) 8.20	°C 22.5	(mV)
Time Elapsed Minutes Rate (mL/min) Water (in) (standard units) Conductivity (μS/cm) 09:37:00 00:00 150 21.92 6.54 65.89 09:42:00 05:00 150 5.35 51.04 09:47:00 10:00 150 21.9 5.27 50.58 09:52:00 15:00 150 21.93 5.22 49.98 09:57:00 20:00 150 21.98 5.18 49.93	(NTU) 0.81	Oxygen (mg/L) 8.20	°C 22.5	(mV)
09:42:00 05:00 150 5.35 51.04 09:47:00 10:00 150 21.9 5.27 50.58 09:52:00 15:00 150 21.93 5.22 49.98 09:57:00 20:00 150 21.98 5.18 49.93			+	
09:47:00 10:00 150 21.9 5.27 50.58 09:52:00 15:00 150 21.93 5.22 49.98 09:57:00 20:00 150 21.98 5.18 49.93	0.77	2.93	19.9	196.80
09:52:00 15:00 150 21.93 5.22 49.98 09:57:00 20:00 150 21.98 5.18 49.93	0.77			
09:57:00 20:00 150 21.98 5.18 49.93	0.77	2.35	19.7	205.05
	0.24	2.38	19.1	210.39
10:02:00 25:00 150 21.9 5.19 49.89	0.29	1.98	19.0	215.27
	0.35	1.89	19.7	215.28
10:07:00 30:00 150 21.94 5.18 49.48	0.20	1.92	19.0	217.25
Constituent Sampled Container		Number	P	reservative
RAD Chem 1L Plastic		2	н	NO3
TDS 500 mL Plastic		1	N	one
CI, F, SO4 250 mL Plastic		1	N	lone
Metals 250mL HDPE Plastic		1	- Н	NO3
Comments: Sampled				
Well Casing Volume Conversion				

Well Locked at Arrival:

Key Number To Well: NA

Well Locked at Departure:



Updated: 9/1/2022 10:02:38 PM

								-04:00)/1/2022 10:02:38 F
Project Number	30053438	3	Well ID	YGWA-	18I			Date	08/30/2022
Project Location	AMA AP-	3, A, B and B'		Weathe	er(°F) 76 °F, Ove	rcast, winds	at mph.		
Measuring Pt. Description	Top of Inr	ner Casing	Screen Setting (ft-bmp	69.67	Casing Diameter ((in) ²		Well Casing Material	PVC
Static Water Level (ft-bmp)	24.46		Total Depth (ft- bmp)	79.97	Water Column(ft) 55.51		Gallons in Well	9.02
MP Elevation	790.57		Pump Intake (ft bmp)	75	Purge Met	hod Low-Flo	ow .	Sample Method	Low-Flow
Sample Time	13:35		Well Volumes Purged	0.18	Sample ID	YGWA-	181	Sampled by	Jessica Ware
Purge Start	10:50		Gallons Purgeo	i 1.59	Replicate/ Code No.			Color	Clear
Purge End	14:04								
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (in)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	rure Redox (mV)
10:50:00	00:00	150	24.46	6.14	106.03		8.41	22.5	152.49
10:55:00	05:00	150	24.53	6.25	102.96	1.12	4.10	21.7	170.86
11:00:00	10:00	150	24.52	5.99	103.96	0.67	3.27	21.1	174.65
11:05:00	15:00	150	24.55	5.84	105.27	0.02	3.35	21.0	173.55
11:10:00	20:00	150	24.54	5.82	105.80	0.02	3.61	20.7	176.59
11:15:00	25:00	150	24.56	5.81	105.70	0.02	3.74	20.6	179.03
11:20:00	30:00	150	24.56	5.82	105.91		3.83	20.4	181.31
11:25:00	35:00	150	24.56	5.87	106.36		3.94	21.0	178.86
11:30:00	40:00	150	24.56	5.89	109.49		3.93	21.5	176.97
Constituent San	pled			Container			Number	P	reservative
Metals	=		;	250mL HDPE	Plastic		1	Н	NO3
TDS				500 mL Plastic			1		one
RAD Chem				1L Plastic			2		one
CI, F, SO4				250 mL Plastic			1	N	one
Comments:		sor broke at 1 st Mark Chest 8		at 11:20 was	stable (dtw 24.56, tu	rb 0.02). Got	new compress	sor from Field a	and sampled at 13:35

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47

1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well diameter (inches) = gallons per foot

 Well Information

 Well Location:
 Well Locked at Arrival:

 Condition of Well:
 Well Locked at Departure:

 Well Completion:
 NA

 Key Number To Well:
 NA



Updated: 8/31/2022 1:51:50 PM

								Updated : 8 -04:00	3/31/2022 1:51:50 PN
Project Numbe	r 30053438		Well ID	YGWA-2	20S			Date	08/31/2022
Project Locatio	n AMA AP-3	3, A, B and B'		Weathe	e r(°F) 80 °F, , w	vinds at mph.			
Measuring Pt. Description	Top of Inn	er Casing	Screen Setting (ft-bmp) 19.22	Casing Diameter	(in) ²		Well Casing Material	PVC
Static Water .evel (ft-bmp)	11.57		Total Depth (ft- bmp)	29.52	Water Column(i	ft) 17.95		Gallons in Well	2.92
IP Elevation	767.12		Pump Intake (f bmp)	t- 24.5	Purge Me	ethod Low-Flo	ow .	Sample Method	Low-Flow
Sample Time	12:57		Well Volumes Purged	0.34	Sample II	D YGWA-	20S	Sampled by	Jessica Ware
urge Start	12:23		Gallons Purge	d 0.99	Replicate Code No.			Color	Clear
Purge End	13:35								
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	ture Redox (mV)
12:23:00	00:00	200	11.57	6.60	54.41	1.83	8.33	23.1	121.75
12:28:00	05:00	150	12.04	5.59	54.42	9.46	8.08	19.9	199.47
12:33:00	10:00	100	11.91	5.51	54.40	8.03	7.92	21.0	210.37
12:38:00	15:00	100	11.82	5.45	54.47	7.33	7.85	21.2	216.56
12:43:00	20:00	100	11.8	5.37	54.27	4.86	7.77	21.2	224.01
12:48:00	25:00	100	11.78	5.38	54.31	2.98	7.66	21.6	223.86
12:53:00	30:00	100	11.73	5.38	54.63	2.35	7.56	22.7	225.51
Constituent Sa	mpled			Container			Number	P	reservative
AD Chem				1L Plastic			2	Н	INO3
 1etals				250mL HDPE	Plastic	-	1	— <u> </u>	INO3
riciais						_	1		
DS				500 mL Plastic	;		1	IN	lone

Well Casing Volume Conversion

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47 1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65 Well diameter (inches) = gallons per foot

Well Information		
Well Location:	Well Locked at Arrival:	
Condition of Well:	Well Locked at Departure:	
Well Completion: NA	Key Number To Well: NA	



Updated: 8/31/2022 2:06:34 PM

-04:00

Project Number	30053438	Well ID	YGWA-21I			Date	08/30/2022
Project Location	AMA AP-3, A, B and B	1	Weather(°F)	84.2 degrees F mph.	and Mostly Cloudy. T	he wind is blow	ing undefined at 0.0
Measuring Pt. Description	Top of Inner Casing	Screen Setting (ft-bmp)	69.6	Casing Diameter (in)	2	Well Casing Material	PVC
Static Water Level (ft-bmp)	32.12	Total Depth (ft- bmp)	79.9	Water Column(ft)	47.78	Gallons in Well	7.76
MP Elevation	783.7	Pump Intake (ft- bmp)	75	Purge Method	Low-Flow	Sample Method	Low-Flow
Sample Time	14:30	Well Volumes Purged	0.31	Sample ID	YGWA-21I	Sampled by	Mark Chest
Purge Start	13:52	Gallons Purged	2.38	Replicate/ Code No.		Color	Clear

Purge End 14:27

•									
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
13:52:00	00:00	300	32.12	7.45	175.48		7.87	32.5	157.78
13:57:00	05:00	250	35.55	7.08	197.65	2.22	0.28	21.0	-101.65
14:02:00	10:00	250	36	6.90	177.38	0.36	0.15	24.2	-98.85
14:07:00	15:00	250	36.12	6.82	170.35	0.02	0.16	22.1	-92.98
14:12:00	20:00	250	36.19	6.72	166.61	0.03	0.13	22.2	-92.82
14:17:00	25:00	250	36.27	6.64	161.22	0.02	0.12	22.3	-92.13
14:22:00	30:00	250	36.34	6.59	157.87	0.02	0.13	22.8	-91.59
14:27:00	35:00	250	36.41	6.58	155.91	0.00	0.13	23.4	-91.50

Constituent Sampled	Container	Number	Preservative
RAD Chem	1L Plastic	2	HNO3
TDS	500 mL Plastic	1	None
Metals	250 mL Plastic	1	HNO3
F, Cl, SO4	250 mL Plastic	1	None

Comments: None

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47

Well Information			
Well Location:		Well Locked at Arrival:	
Condition of Well:		Well Locked at Departure:	
Well Completion:	NA	Key Number To Well:	NA

Well Completion: NA



Updated: 8/31/2022 2:06:35 PM

-04:00

								-04:00		
Project Number	30053438	3	Well ID	YGWA-3	39			Date	08/31/20)22
Project Location	ocation AMA R6 CCR Landfill			Weathe	r(°F) 84.6 degre	84.6 degrees F and Clear. The wind is blowing N/N			IW at 6.9 mph.	
Measuring Pt. Description	Top of Inr	ner Casing	Screen Setting (ft-bmp	58.09	Casing Diameter (in) ²		Well Casing Material	PVC	
Static Water _evel (ft-bmp)	17.6		Total Depth (ft- bmp)	68.59	Water Column(ft)	50.99		Gallons in Well	8.29	
MP Elevation	818.19		Pump Intake (fi	t- 63	Purge Met	hod Low-Flo	w	Sample Method	Low-Flov	w
Sample Time	13:50		Well Volumes Purged	0.25	Sample ID	YGWA-	39	Sampled by	Mark Ch	nest
Purge Start	13:06		Gallons Purged	d 2.11	Replicate/ Code No.			Color	Clear	
Purge End	13:46									
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	:ure	Redox (mV)
13:06:00	00:00	200	17.6	7.01	352.92		2.46	22.9		24.34
13:11:00	05:00	200	18.25	5.84	383.57	1.89	0.09	19.6		85.04
13:16:00	10:00	200	18.34	5.77	376.89	0.65	0.05	19.5		94.91
13:21:00	15:00	200	18.37	5.67	371.48	0.43	0.04	19.4		106.56
13:26:00	20:00	200	18.39	5.54	366.27	0.02	0.04	19.4		119.01
13:31:00	25:00	200	18.44	5.44	361.38	0.02	0.04	19.4		127.52
13:36:00	30:00	200	18.39	5.37	363.20	0.36	0.04	19.2		133.20
13:41:00	35:00	200	18.4	5.33	359.98	0.02	0.05	19.3		137.26
13:46:00	40:00	200	18.41	5.30	364.75	1.09	0.04	19.3		139.19
Constituent San	npled			Container			Number	Р	reservati	ve
RAD Chem				1L Plastic			2	Н	INO3	
DS				500 mL Plastic	;		1		lone	
/letals				250 mL Plastic	50 mL Plastic 1		1	HNO3		
F,CI,SO4			 -	250 mL Plastic	:		1	N	lone	
Cammanta	News		-							
Comments:	None	-1								
Well Casing Vol Well diameter (in			1 = 0.04 1.5 = 0 1.25 = 0.06 2 =		3.5 = 0.50 6 = 1.47 4 = 0.65					
Well Information	า		20 - 0.00 2 -	3.70 0 = 0.07 4	. 0.00					
Well Location					Well Locked at Arr	ival:				
Condition of We				w	ell Locked at Depart				_	
201121101701770									_	

Key Number To Well: NA

Gallons Purged

1.59



Updated: 9/2/2022 10:29:15 AM

Clear

-04:00

Color

30053438 Well ID YGWA-40 Date 08/31/2022 **Project Number Project Location** AMA R6 CCR Landfill Weather(°F) 84.6 degrees F and Clear. The wind is blowing N/NW at 6.9 mph. **Well Casing** Measuring Pt. Screen Casing PVC Top of Inner Casing 37.73 Description Material Setting (ft-bmp) Diameter (in) **Static Water** Total Depth (ft-Gallons in Water 4.01 48.23 23.55 24.68 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample 42 Purge Method Low-Flow **MP Elevation** 815.73 Low-Flow bmp) Method **Well Volumes** Sample Time 16:40 0.40 Sample ID YGWA-40 Sampled by Mark Chest Purged

Replicate/

Code No.

Purge End 16:36

16:06

Purge Start

							•		
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
16:06:00	00:00	200		5.03	105.09		0.11	17.9	197.89
16:11:00	05:00	200	25.8	4.91	100.87	0.02	0.10	18.0	234.91
16:16:00	10:00	200	25.85	4.79	98.98	0.05	0.47	18.0	259.26
16:21:00	15:00	200	25.85	4.66	100.66	0.02	0.39	17.9	280.04
16:26:00	20:00	200	25.85	4.59	98.38	0.02	0.29	17.9	293.98
16:31:00	25:00	200	25.85	4.57	94.16	0.03	0.26	17.9	302.46
16:36:00	30:00	200	25.85	4.53	94.04	0.05	0.22	17.8	311.98

Constituent Sampled	Container	Number	Preservative
RAD Chem	1L Plastic	2	HNO3
TDS	500 mL Plastic	1	None
Metals	250 mL Plastic	1	HNO3
F, CL, SO4	250 mL Plastic	1	None

Comments: None

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot $1 = 0.04 \ 1.5 = 0.09 \ 2.5 = 0.26 \ 3.5 = 0.50 \ 6 = 1.47$

Well Information			
Well Location:		Well Locked at Arrival:	
Condition of Well:		Well Locked at Departure:	
Well Completion:	NA	Key Number To Well:	NA



Updated: 8/31/2022 10:19:04

							AM -04:00	0/31/2022 10.19.04
30053438		Well ID	YGWA-	11			Date	08/31/2022
AP-2		Weathe	r(°F) 71.1 degre	es F and Clou	udy. The wind	is blowing N a	t 5.8 mph.	
Top of Inne	er Casing	Screen Setting (ft-bmp	43.3	Casing Diameter	(in) ²		Well Casing Material	PVC
37.23		Total Depth (ft- bmp)	53.6	Water Column(ft	16.37		Gallons in Well	2.66
836.6		Pump Intake (ft bmp)	- 49	Purge Me	thod Low-Flo	w	Sample Method	Low-Flow
09:10		Well Volumes Purged	0.48	Sample ID	YGWA-	11	Sampled by	Khalil Carson
08:22		Gallons Purgeo	l 1.27	Replicate/ Code No.	1		Color	Clear
10:17								
Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	eure Redox (mV)
00:00	150	37.23	5.68	89.49		6.59	22.6	186.55
05:00	150	38.18	5.65	86.30	0.53	5.29	20.0	141.15
05:29	100	37.23	5.61	88.39	0.53	5.02	19.9	139.26
10:29	100	38.22	5.74	88.86	0.94	4.68	20.5	112.33
15:29	100	38.27	5.66	84.27	0.61	4.82	20.7	110.40
20:29	100	38.32	5.49	78.81	0.11	4.94	20.7	121.58
25:29	100	38.36	5.63	77.52	0.27	5.14	20.7	118.66
30:29	100	38.4	5.56	76.06	0.33	5.28	20.6	125.51
35:29	100	38.45	5.70	75.25	0.41	5.38	20.7	120.61
40:29	100	38.49	5.67	74.70	0.27	5.34	20.7	124.88
45:29	100	38.49	5.64	74.31	0.69	5.46	20.8	129.78
lad			0			November 2	-	
ipiea								reservative
								NO3
								lone lone
								INO3
			LOO ME I IASHU	· 		•		
·ma Canvara	·lan							
<u> </u>		1.20 - 0.00 2 = 1	0.10 0 = 0.07 4	. – 0.00				
				Well I ocked at Ar	rival·			
								_
				·				_
	AP-2 Top of Inne 37.23 836.6 09:10 08:22 10:17 Total Elapsed Minutes 00:00 05:00 05:29 10:29 15:29 20:29 25:29 30:29 35:29 40:29 45:29	AP-2 Top of Inner Casing 37.23 836.6 09:10 08:22 10:17 Total Elapsed Minutes 00:00 150 05:00 150 05:29 100 10:29 100 20:29 100 20:29 100 30:29 100 30:29 100 40:29 100 40:29 100 40:29 100 40:29 100 40:29 100 40:29 100 40:29 100 40:29 100 40:29 100 Abs:29 100 Abs:29 100 Abs:29 100 Abs:29 100 Abs:29 A	Top of Inner Casing Screen Setting (ft-bmp) 37.23 Total Depth (ft-bmp) 836.6 Pump Intake (ft bmp) 09:10 Well Volumes Purged 08:22 Gallons Purged 10:17 Total Elapsed Minutes (ft) 00:00 150 37.23 05:00 150 38.18 05:29 100 37.23 10:29 100 38.22 15:29 100 38.32 25:29 100 38.32 25:29 100 38.43 35:29 100 38.44 35:29 100 38.49 45:29 100 38.49 45:29 100 38.49 45:29 100 38.49 45:29 100 38.49 45:29 100 38.49 45:29 100 38.49	AP-2 Screen Setting (ft-bmp) 43.3 37.23 Total Depth (ft-bmp) 53.6 836.6 Pump Intake (ft-bmp) 49 09:10 Well Volumes Purged 0.48 08:22 Gallons Purged 1.27 10:17 Total Depth to Water (mL/min) Depth to Water (ft) (standard units) 00:00 150 37.23 5.68 05:00 150 38.18 5.65 05:29 100 38.22 5.74 15:29 100 38.22 5.74 15:29 100 38.32 5.49 25:29 100 38.32 5.49 25:29 100 38.36 5.63 30:29 100 38.45 5.70 40:29 100 38.49 5.67 45:29 100 38.49 5.67 45:29 100 38.49 5.64 Pump Intake (ft-bmp) 50 mL Plastic 250 mL Plas	AP-2 Weather(*F) 71.1 degree	AP-2 Weather(*F) 71.1 degrees F and Cloud Top of Inner Casing Setting (ft-bmp) 43.3 Casing Diameter (in) 2	AP-2 Weather(*F) 71.1 degrees F and Cloudy. The wind Setting (ft-bmp) 43.3 Casing Diameter (in) 2	AM - 04.00 April Am - 04.00 April Am - 04.00

Well Completion: NA



Updated: 9/8/2022 4:54:30 PM -

04:00

Project Number										
. 5,000 110111001	30053438		Well ID	YGWA-1	D			Date	08/30/2022	
Project Location	n AP-2		on AP-2 Weath		Weather	ather(°F) 75.6 degrees F and Cloudy. The wind is blowing unde			efined at 0.0 mph.	
Measuring Pt. Description	Top of Inn	er Casing	Screen Setting (ft-bmp	78.05	Casing Diameter	(in) ²		Well Casing Material	PVC	
Static Water Level (ft-bmp)	49.39		Total Depth (ft- bmp)	128.85	Water Column(fi	79.46		Gallons in Well	12.91	
MP Elevation	837.25		Pump Intake (f bmp)	t- 108	Purge Me	thod Low-Flo	w	Sample Method	Low-Flow	
Sample Time	13:50		Well Volumes Purged	0.12	Sample IE	YGWA-	1D	Sampled by	Khalil Carson	
Purge Start	13:15		Gallons Purge	d 1.59	Replicate Code No.	I		Color	Clear	
Purge End	14:30									
	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperat °C	ure Redox (mV)	
13:15:00	00:00	200	145.6365	7.19	165.81		3.53	37.3	101.43	
13:15:00	00:29	200	49.43	7.19	164.03		3.51	37.5	101.9	
13:20:00	05:29	200	49.47	7.25	157.05	1.75	2.20	31.1	35.74	
13:24:00	09:31	200	49.45	7.10	157.61	1.66	1.52	27.9	31.13	
13:29:00	14:31	200	49.45	6.88	159.90	0.02	1.11	26.8	3.74	
13:32:00	16:49	200	49.45	7.04	162.63		1.09	25.6	-16.24	
13:37:00	21:49	200	49.45	7.11	163.02	1.71	0.98	25.2	-43.6	
13:42:00	26:49	200	49.45	7.18	163.35	1.04	0.84	24.6	-59.45	
13:47:00	31:49	200	49.45	7.20	161.94	0.66	0.78	24.4	-67.58	
Constituent Samp	oled			Container			Number	P	reservative	
RAD Chem				1L Plastic			2	Н	NO3	
				500 mL Plastic			1		one	
TDS			250 mL Plastic 1		1		one			
TDS CI,F,SO4				250 mL Plastic					00	

Key Number To Well: NA

Well Information

Well Location:

Well Completion: NA

Condition of Well:



							Updated: 8,	/30/2022	2 7:27:49 PN
30053438		Well ID	YGWA-2	1			Date	08/30/2	022
n AP-2			Weather	(°F) Cloudy tem	ıp 77				
Top of Oute	er Casing	Screen Setting (ft-bmp)	53.45	Casing Diameter (in) ²		Well Casing Material	PVC	
44.5		Total Depth (ft-k	omp) 63.75	Water Column(ft)	19.25		Gallons in Well	3.13	
866.25		•	bmp) 60	Purge Met	hod Low-Flow	V	Sample Method	Low-Flo	w
10:00			0.30	Sample ID	YGWA-2	21	Sampled by	Khalil C	arson
09:24		Gallons Purged	0.92	Replicate/ Code No.			Color	Clear	
11:43									
Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Tempera °C	ture	Redox (mV)
00:00	200	44.5	7.10	173.92		8.48	23.4		178.94
05:00	200	45.65	6.83	180.62	2.33	4.00	20.9		-40.08
10:00	150	46.00	6.94	189.14	1.05	1.60	20.5		-72.2
15:00	50	46.38	7.01	189.31	0.41	1.13	21.3		-82.9
20:00	50	46.63	7.04	188.53	0.77	1.11	21.9		-89.1
25:00:00	50	46.71	7.05	186.33	1.76	1.04	22.4		-90.7
30:00:00	50	46.81	7.04	184.05	0.53	1.04	22.7		-87.2
npled			Container			Number	P	reservati	ve
			1L Plastic			2	H	INO3	
			250 mL Plastic			1		INO3	
			500 mL Plastic			1	<u>_</u>	lone	
			250 mL Plastic			1	F	INO3	
- ume Conversio	on								
	Top of Oute 44.5 866.25 10:00 09:24 11:43 Total Elapsed Minutes 00:00 05:00 10:00 15:00 20:00 25:00:00 30:00:00 mpled	Top of Outer Casing 44.5 866.25 10:00 09:24 11:43 Total Elapsed Minutes (mL/min) 00:00 200 05:00 200 10:00 150 15:00 50 20:00 50 30:00:00 50	Top of Outer Casing Screen Setting (ft-bmp) 44.5 Total Depth (ft-b) 866.25 Pump Intake (ft-b) 10:00 Well Volumes Purqed 09:24 Gallons Purged 11:43 Total Elapsed Minutes (mL/min) (ft) 00:00 200 44.5 05:00 200 45.65 10:00 150 46.00 15:00 50 46.38 20:00 50 46.63 25:00:00 50 46.81	AP-2 Screen Setting (ft-bmp) 53.45	AP-2 Weather(*F) Cloudy term	AP-2 Weather(°F) Cloudy temp 77	AP-2 Weather(°F) Cloudy temp 77	AP-2 Weather(*F) Cloudy temp 77	AP-2 Weather("F) Cloudy temp 77

Well Locked at Arrival:

Key Number To Well: NA

Well Locked at Departure:



Updated: 8/31/2022 1:51:49 PM

-04:00 30053438 Well ID YGWA-3I Date 08/31/2022 **Project Number** Project Location AP-2 Weather(°F) 78 °F, Sunny, winds at mph. **Well Casing** Measuring Pt. Screen Casing PVC Top of Inner Casing 48.85 Description Material Setting (ft-bmp) Diameter (in) Total Depth (ft-**Static Water** Gallons in Water 59.05 5.83 0.95 53.22 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample Purge Method Low-Flow **MP Elevation** 796.55 54 Low-Flow bmp) Method **Well Volumes** Sample Time 10:54 2.05 Sample ID YGWA-3I Sampled by Jessica Ware Purged Replicate/ **Purge Start** 10:02 **Gallons Purged** 1.95 Clear Color Code No. **Purge End** 11:25

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
10:02:00	00:00	200	53.22	7.57	210.69	0.30	8.69	19.1	125.05
10:07:00	05:00	200	53.62	7.40	274.64	0.48	4.45	19.6	130.45
10:12:00	10:00	200	53.7	7.36	291.19	1.91	1.99	18.8	71.97
10:17:00	15:00	125	53.52	7.41	291.02	1.24	2.03	21.7	29.04
10:22:00	20:00	125	53.48	7.43	285.82	0.53	1.94	22.0	6.67
10:27:00	25:00	125	53.46	7.45	272.37	1.02	1.67	21.8	-19.80
10:32:00	30:00	125	53.44	7.46	258.51	0.67	1.44	22.1	-34.15
10:37:00	35:00	125	53.45	7.47	245.50	0.48	1.20	21.8	-44.37
10:42:00	40:00	125	53.46	7.47	235.31	0.27	1.05	21.8	-51.67
10:47:00	45:00	125	53.46	7.48	230.69	0.53	1.03	21.8	-54.62
10:52:00	50:00	125	53.47	7.49	228.11	0.40	1.08	21.9	-55.58

Constituent Sampled	Container	Number	Preservative
RAD Chem	1L Plastic	2	HNO3
Metals	250mL HDPE Plastic	1	HNO3
TDS	500 mL Plastic	1	None
Cl, F, SO4	250 mL Plastic	1	None

Comments: Sampled

Well Casing Volume Conversion

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47 Well diameter (inches) = gallons per foot

Well Information	
Well Location:	Well Locked at Arrival:
Condition of Well:	Well Locked at Departure:
Well Completion:	NA Key Number To Well: NA



Updated: 9/1/2022 10:02:45 PM

-04:00

30053438 Well ID YGWA-3D Date 08/31/2022 **Project Number** Project Location AP-2 Weather(°F) 32 °F, , winds at mph. **Well Casing** Measuring Pt. Screen Casing PVC Top of Inner Casing 83.88 Description Material Setting (ft-bmp) Diameter (in) Total Depth (ft-**Static Water** Gallons in Water 134.18 103.88 30.3 16.88 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample Purge Method Low-Flow **MP Elevation** 796.78 113 Low-Flow bmp) Method **Well Volumes** Sample Time 09:30 0.07 Sample ID YGWA-3D Sampled by Jessica Ware Purged Replicate/ **Purge Start** 08:57 **Gallons Purged** Color Clear 1.19 Code No. **Purge End** 10:01

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
08:57:00	00:00	150	30.3	7.68	227.11		8.62	22.6	193.29
09:02:00	05:00	150	30.33	6.91	222.28	0.69	2.37	20.4	10.36
09:07:00	10:00	150	30.34	7.16	223.33	0.83	1.07	20.0	-40.45
09:12:00	15:00	150	30.32	7.45	222.32	0.60	0.70	19.5	-59.28
09:17:00	20:00	150	30.35	7.57	222.71	0.28 0.63 19.2	0.63 19.2	19.2	-73.91
09:22:00	25:00	150	30.36	7.62	222.83	0.02	0.62	19.4	-89.84
09:27:00	30:00	150	30.33	7.65	222.81	0.13	0.54	19.5	-102.82

Constituent Sampled	Container	Number	Preservative
Metals	250mL HDPE Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
TDS	500 mL Plastic	1	None
CI, F, SO4	250 mL Plastic	1	None

Comments: Sampled

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot $1 = 0.04 \ 1.5 = 0.09 \ 2.5 = 0.26 \ 3.5 = 0.50 \ 6 = 1.47$

Well Information			
Well Location:		Well Locked at Arrival:	
Condition of Well:		Well Locked at Departure:	
Well Completion:	NA	Key Number To Well:	NA



Updated: 9/1/2022 3:43:23 PM -

04:00

30053438 Well ID YGWA-14S 08/31/2022 **Project Number** Date **Project Location** AP-2 Weather(°F) 83.7 degrees F and Clear. The wind is blowing N at 8.1 mph. **Well Casing** Measuring Pt. Screen Casing PVC Top of Inner Casing 24.66 Description Setting (ft-bmp) Diameter (in) Material **Static Water** Total Depth (ft-Gallons in Water 34.96 20.24 14.72 2.39 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample **MP Elevation** 748.76 30 Purge Method Low-Flow Low-Flow Method bmp) **Well Volumes** Sample Time 14:15 1.03 Sample ID YGWA-14S Sampled by Khalil Carson Purged Replicate/ **Gallons Purged Purge Start** 13:10 2.47 Color Clear Code No.

Purge End 15:07

i dige Liid	13.01								
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
13:10:00	00:00	150	20.24	5.15	69.74		7.46	27.3	185.16
13:15:00	05:00	150	20.34	4.84	61.05	0.02	6.85	27.9	213.44
13:20:00	09:46	150	20.34	4.87	66.68	0.02	6.14	27.6	224.17
13:25:00	14:46	150	20.34	4.83	65.63	0.08	5.95	27.2	234.74
13:30:00	19:46	150	20.34	4.76	65.77	0.02	5.93	27.0	249.59
13:35:00	24:46	150	20.34	4.88	54.89	0.02	5.94	26.9	246.66
13:40:00	29:46	150	20.34	4.96	61.81	0.02	5.88	26.9	246.23
13:45:00	34:46	150	20.34	5.01	64.18	0.20	5.77	27.2	248.56
13:50:00	39:46	150	20.34	4.67	63.07	0.69	5.72	27.2	267.44
13:55:00	44:46	150	20.34	4.88	54.79	1.89	5.73	27.2	264.42
13:58:00	47:24	150	20.34	4.94	64.26	1.89	5.86	26.8	299.77
14:03:00	52:24	150	20.34	5.06	57.06	0.02	5.74	27.2	273.52
14:08:00	57:24	150	20.34	5.12	55.34	0.18	5.79	27.1	269.07
14:13:00	02:24	150	20.34	5.15	57.24	0.24	5.75	27.0	268.37

Constituent Sampled	Container	Number	Preservative	
Metals	250 mL Plastic	1	HNO3	
RAD Chem	1L Plastic	2	HNO3	
TDS	500 mL Plastic	1	None	
CI,F,SO4	250 mL Plastic	1	None	

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot $1 = 0.04 \ 1.5 = 0.09 \ 2.5 = 0.26 \ 3.5 = 0.50 \ 6 = 1.47$



Updated: 9/1/2022 3:43:22 PM -

04:00

30053438 Well ID YGWA-30I Date 08/31/2022 **Project Number Project Location** AP-2 Weather(°F) Partly cloudy 81 **Well Casing** Screen Measuring Pt. Casing PVC Top of Inner Casing 49.18 Description Setting (ft-bmp) Diameter (in) Material **Static Water** Total Depth (ft-Gallons in Water 59.48 2.54 43.86 15.62 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample **MP Elevation** 762.58 54.5 Purge Method Low-Flow Low-Flow Method bmp) **Well Volumes** Sample Time 11:30 0.67 Sample ID YGWA-30I Sampled by Khalil Carson Purged Replicate/ **Purge Start Gallons Purged** 1.70 10:44 Color Clear Code No.

Purge End 12:00

i dige Liid	12.00								
Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
10:44:00	00:00	150	44.36	6.64	58.07		8.59	24.5	133.57
10:49:00	05:00	150	44.36	6.63	59.21	1.32	8.48	25.9	121.26
10:55:00	10:49	150	43.9	6.71	58.93	0.71	8.27	27.4	152.70
10:57:00	12:53	150	43.9	6.60	55.09	1.12	8.58 7.97	27.2 26.4	161.79
11:02:00	17:53	150	43.9	6.13	53.46	1.31			148.39
11:07:00	22:53	150	43.9	5.58	54.11	0.81	7.48	25.8	178.08
11:12:00	27:53	150	43.9	5.74	54.08	0.85	7.38	25.2	175.12
11:17:00	32:53	150	43.9	5.78	54.88	0.02	7.25	25.1	178.57
11:22:00	37:53	150	43.9	5.84	54.83	0.14	7.14	25.2	180.65
11:27:00	42:53	150	43.9	5.87	54.57	0.41	7.07	25.4	182.89

Constituent Sampled	Container	Number	Preservative
RAD Chem	1L Plastic	2	HNO3
Metals	125 mL Plastic	1	HNO3
TDS	250 mL Plastic	1	None
C,FL,SO4	125 mL Plastic	1	None

Comments: —

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47

1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well	Information

Well Location:
Well Locked at Arrival:

Condition of Well:
Well Locked at Departure:

Well Completion:
NA

Key Number To Well: NA

Well Completion: NA



Updated: 8/30/2022 7:53:59 PM

-04:00

Well ID **Project Number** 30052922 GWA-2 Date 08/30/2022 **Project Location** Gypsum Landfill Weather(°F) 72.0 degrees F and Fog. The wind is blowing E/SE at 4.7 mph. **Well Casing** Measuring Pt. Screen Casing PVC Top of Inner Casing 42.1 Description Setting (ft-bmp) Diameter (in) Material Total Depth (ft-Gallons in Static Water Water 52.13 15.85 2.58 36.28 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample MP Elevation 805.62 47 Purge Method Low-Flow Low-Flow Method bmp) **Well Volumes** Sample Time 10:05 0.20 Sample ID GWA-2 Sampled by Jake Swanson Purged Replicate/ **Gallons Purged Purge Start** 09:34 0.53 Color Clear Code No. **Purge End** 09:54 Depth to Total pН Specific Dissolved Rate **Turbidity Temperature** Redox Water Time Elapsed (standard Conductivity Oxygen (mL/min) (NTU) (mV) **Minutes** (ft) units) (µS/cm) (mg/L) 09:34:00 00:00 100 36.28 5.79 189.14 0.77 1.60 20.5 -72.17 09:39:00 05:00 100 36.81 5.49 189.31 0.22 1.13 21.3 -82.91 09:44:00 10:00 100 36.9 188.53 0.31 21.0 -89.15 5.35 1.11 09:49:00 15:00 100 36.96 5.35 186.33 0.36 1.04 20.8 -90.65 37.03 09:54:00 20:00 100 5.39 184.04 0.43 1.04 20.8 -87.16 **Constituent Sampled** Number Preservative Container RAD Chem 1L Plastic 2 HNO3 Metals 250 mL Plastic 1 HNO3 1 Chloride, F, SO4 250 mL Plastic None 1 TDS 500 mL Plastic None Comments: Upgradient well **Well Casing Volume Conversion** Well diameter (inches) = gallons per foot $1 = 0.04 \ 1.5 = 0.09 \ 2.5 = 0.26 \ 3.5 = 0.50 \ 6 = 1.47$ $1.25 = 0.06\ 2 = 0.16\ 3 = 0.37\ 4 = 0.65$ **Well Information** Well Location: Well Locked at Arrival: Condition of Well: Well Locked at Departure:

Key Number To Well: NA

Well Location:

Well Completion: NA

Condition of Well:



Updated: 8/31/2022 1:26:36 PM

-04:00

Project Number 30052922 Well ID YGWA-47 Date 08/31/2022 **Project Location** AP-1 Weather(°F) 73 sunny **Well Casing** Measuring Pt. Screen Casing PVC Top of Inner Casing 49.4 2 Description Setting (ft-bmp) Diameter (in) Material Total Depth (ft-Gallons in Static Water Water 59.19 25.01 4.06 34.18 Level (ft-bmp) bmp) Column(ft) Well Pump Intake (ft-Sample MP Elevation 758.22 54 Purge Method Low-Flow Low-Flow Method bmp) **Well Volumes** Sample Time 09:15 0.20 Sample ID YGWA-47 Sampled by Jake Swanson Purged Replicate/ **Gallons Purged Purge Start** 08:47 0.79 Color Clear Code No. **Purge End** 09:07 Depth to Total pН Specific Dissolved Rate **Turbidity Temperature** Redox Water Time Elapsed (standard Conductivity Oxygen (mL/min) (NTU) (mV) **Minutes** (ft) units) (µS/cm) (mg/L) 08:47:00 00:00 150 34.18 6.58 151.49 2.88 7.95 22.6 181.33 08:52:00 05:00 150 34.74 5.33 132.46 3.07 3.82 19.5 191.39 08:57:00 10:00 34.75 0.96 193.14 150 5.26 129.13 3.62 19.2 09:02:00 15:00 150 34.77 5.28 129.79 0.89 3.53 19.0 188.90 34.79 5.32 0.02 09:07:00 20:00 150 135.11 3.44 19.1 185.05 **Constituent Sampled** Number Preservative Container 1L Plastic RAD Chem 2 HNO3 Metals 250 mL Plastic 1 HNO3 1 Chloride, F, SO4 250 mL Plastic None 1 TDS 500 mL Plastic None Comments: None **Well Casing Volume Conversion** Well diameter (inches) = gallons per foot $1 = 0.04 \ 1.5 = 0.09 \ 2.5 = 0.26 \ 3.5 = 0.50 \ 6 = 1.47$ $1.25 = 0.06 \ 2 = 0.16 \ 3 = 0.37 \ 4 = 0.65$ **Well Information**

Well Locked at Arrival:

Key Number To Well: NA

Well Locked at Departure:



			1		
		Gypsum Landfill	-		
Perm	nit Number:		-		
_	Well ID:		-		
Perso		Jake Swanson	-		
		8/29/2022 09:39:00	-		
	ı ime:	03.53.00	Yes	No	N/A
1	Location Ide	entification:	163	INO	IN/A
'		Is the well visible and accessible?	\square		
	a				
	b	Is the well properly identified with the correct well ID?			
	C	Is the well in a high traffic area and does the well require protection from traffic?		IV.	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	\square		
	С	Does the casing have a functioning weep hole?	\square		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	\square		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	V		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	$\overline{\mathbf{A}}$		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø		
5	Sampling: G	roundwater Wells Only:			
	а	Does well recharge adequately when purged?	\square		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø		
	С	Does the well require redevelopment (low flow, turbid)?		$\overline{\mathbf{V}}$	
6		our professional judgement, is the well construction / location:	_	_	
0	Sasca on yo	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program			
			I		_
7	Correctives	and 2) comply with the applicable regulatory requirements?			
7		ctions as needed, by date:			
	Cut vegetati	UII			
8	Date by whe	en corrective actions are needed:			
•	2.22 29				



Proje	ct Location:	AP-1			
	nit Number:				
	Well ID:	YGWA-47			
Perso	on Gauging:	David Prouty			
	Date:	8/29/2022			
	Time:	10:23:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?	\square		
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious	Ø		
2	Protective Ca	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	\square		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion,	Ø		
	e	Is the pad surface clean (not covered with sediment or debris)?	☑		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	\square		
	С	Is the well properly vented for equilibration of air pressure?	\square		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	e	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	V		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved	Ø		
	С	Does the well require redevelopment (low flow, turbid)?		Ø	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective ac	ctions as needed, by date:			
	Cut vegetati	on			
8	Date by whe	n corrective actions are needed:			



Proje	ct Location:	AP-2			
Perm	nit Number:				
	Well ID:	YGWA-30I			
Perso	on Gauging:	Jake Swanson			
		8/29/2022			
	Time:	12:49:00			
			Yes	No	N/A
1	Location Ide	entification:			
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		$\overline{\mathbf{Q}}$	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Cas	ing			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø		
	С	Does the well require redevelopment (low flow, turbid)?			
6	Based on yo	our professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	☑		
7	Corrective a	ctions as needed, by date:			
	Cut vegetati	on			
8	Date by whe	en corrective actions are needed:			



Draia	ct Location:	A D_ 2			
	nit Number:	At -Z	1		
1 6111		YGWA-14S	1		
Perso		Jake Swanson	1		
		8/29/2022	1		
		12:39:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		Ø	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	V		
	b	Is the casing free of degradation or deterioration?	V		
	С	Does the casing have a functioning weep hole?	V		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	V		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	V		
	b	Is the well pad sloped away from the protective casing?	v		
	С	Is the well pad in complete contact with the protective casing?	V		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	V		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	V		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	V		
	С	Is the well properly vented for equilibration of air pressure?	V		
	d	Is the survey point clearly marked on the inner casing?	V		
	е	Is the depth of the well consistent with the original well log?	V		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	v		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	V		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	V		
	С	Does the well require redevelopment (low flow, turbid)?		\square	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	V		
		and 2) comply with the applicable regulatory requirements?	V		
7	Corrective a	ctions as needed, by date:			
	Cut vegetati	on			
8	Date by whe	en corrective actions are needed:			



Proje	ct Location:	AMA AP-3, A, B and B'			
	nit Number:				
	Well ID:	YGWA-21I			
Perso	n Gauging:	Jessica Ware			
	Date:	8/29/2022			
	Time:	09:48:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?			
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	e	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi				
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?			
		Is the depth of the well consistent with the original well log?	Ø		
	f	Is the depth of the well consistent with the original well log: Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand			
		due to lack of grout or use of slip couplings in construction)	☑		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?			
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			
	С	Does the well require redevelopment (low flow, turbid)?			
6	Based on yo	our professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective a	ctions as needed, by date:			
8	Date by whe	en corrective actions are needed:			



			1		
		AMA R6 CCR Landfill	-		
Perm	nit Number:		-		
		YGWA-39			
Perso	on Gauging:		_		
		8/29/2022	-		
	Time:	13:12:00	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		N 1 / A
4			Yes	No	N/A
ı	Location Ide			_	_
	a	Is the well visible and accessible?	☑		
	b	Is the well properly identified with the correct well ID?	<u></u>		
	C	Is the well in a high traffic area and does the well require protection from traffic?		Ø	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	V		
	С	Does the casing have a functioning weep hole?			
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	V		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑		
	е	Is the pad surface clean (not covered with sediment or debris)?	V		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	\square		
	С	Is the well properly vented for equilibration of air pressure?	V		
	d	Is the survey point clearly marked on the inner casing?	$\overline{\mathbf{V}}$		
	е	Is the depth of the well consistent with the original well log?	$\overline{\mathbf{v}}$		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	\square		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	\square		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø		
	С	Does the well require redevelopment (low flow, turbid)?		V	
6	Based on yo	ur professional judgement, is the well construction / location:			
	, , ,	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	$\overline{\mathbf{V}}$		
		and 2) comply with the applicable regulatory requirements?	$\overline{\mathbf{V}}$		
7	Corrective a	ctions as needed, by date:			
•					
8	Date by whe	en corrective actions are needed:			



Proje	ct Location:	AMA R6 CCR Landfill			
Pern	nit Number:				
	Well ID:	YGWA-40			
Perso	on Gauging:	Jessica Ware			
	Date:	8/29/2022			
	Time:	12:52:00			1
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?			
	b	Is the well properly identified with the correct well ID?	\square		
	С	Is the well in a high traffic area and does the well require protection from traffic?	\square		
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	\square		
	b	Is the casing free of degradation or deterioration?	V		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	\square		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	\square		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	\square		
	С	Is the well properly vented for equilibration of air pressure?	\square		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	e	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	$\overline{\mathbf{Q}}$		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	V		
	С	Does the well require redevelopment (low flow, turbid)?		$\overline{\checkmark}$	
6	Based on yo	our professional judgement, is the well construction / location:			
	,	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective a	ctions as needed, by date:			
		own, should be cleared			
8	Date by whe	en corrective actions are needed:			



Proje	ct Location:	AMA AP-3, A, B and B'			
	nit Number:		1		
	Well ID:	YGWA-18S			
Perso	on Gauging:	Jessica Ware			
	Date:	8/29/2022			
	Time:	12:17:00	ļ		
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	\square		
	С	Is the well in a high traffic area and does the well require protection from traffic?	\square		
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	\square		
	С	Does the casing have a functioning weep hole?	\square		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	$\overline{\mathbf{A}}$		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	\square		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø		
	С	Does the well require redevelopment (low flow, turbid)?			Ø
6	Based on yo	our professional judgement, is the well construction / location:			
	, , ,	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program			
		and 2) comply with the applicable regulatory requirements?	\square		
7	Corrective a	ctions as needed, by date:			
ĺ	22200 4				
8	Date by whe	en corrective actions are needed:			



Proje	ct Location:	AMA AP-3, A, B and B'			
Perm	nit Number:				
		YGWA-18I	-		
Perso	on Gauging:		_		
		8/29/2022	-		
	Time:	12:14:00	\/	NI.	N1 / A
1	La sada a tala		Yes	No	N/A
ı	Location Ide			_	_
	a	Is the well visible and accessible?	☑		
	b	Is the well properly identified with the correct well ID?	<u></u>		
	C	Is the well in a high traffic area and does the well require protection from traffic?		Ø	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	V		
	С	Does the casing have a functioning weep hole?			
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	V		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑		
	е	Is the pad surface clean (not covered with sediment or debris)?	V		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	V		
	С	Is the well properly vented for equilibration of air pressure?	V		
	d	Is the survey point clearly marked on the inner casing?	$\overline{\mathbf{V}}$		
	е	Is the depth of the well consistent with the original well log?	$\overline{\mathbf{V}}$		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	\square		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	$\overline{\mathbf{V}}$		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø		
	С	Does the well require redevelopment (low flow, turbid)?			
6	Based on yo	ur professional judgement, is the well construction / location:			
	, , ,	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	$\overline{\mathbf{V}}$		
		and 2) comply with the applicable regulatory requirements?	$\overline{\mathbf{V}}$		
7	Corrective a	ctions as needed, by date:			
•					
8	Date by whe	en corrective actions are needed:			



Proje	ct Location:	AMA AP-3, A, B and B'			
Perm	nit Number:				
	Well ID:	YGWA-17S			
Perso	on Gauging:	Jessica Ware			
		8/29/2022			
	Time:	12:06:00			
			Yes	No	N/A
1	Location Ide				
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		\square	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	\square		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	\square		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑		
5	Sampling: G	roundwater Wells Only:			
	а	Does well recharge adequately when purged?	\square		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø		
	С	Does the well require redevelopment (low flow, turbid)?			Ø
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	☑		
7	Corrective a	ctions as needed, by date:			
		•			
	Data !				
8	Date by whe	en corrective actions are needed:			



Proje	ct Location:	AMA AP-3, A, B and B'			
Perm	nit Number:				
	Well ID:	YGWA-5I			
Perso	on Gauging:	Jessica Ware			
		8/29/2022			
	Time:	10:22:00			
			Yes	No	N/A
1	Location Ide				
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		\square	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	\square		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	\square		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	\square		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	V		
	С	Does the well require redevelopment (low flow, turbid)?			Ø
6	Based on yo	ur professional judgement, is the well construction / location:			
	-	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	☑		
7	Corrective a	ctions as needed, by date:			
		•			
	Date la 1				
8	Date by whe	en corrective actions are needed:			



Proje	ct Location:	AMA AP-3, A, B and B'			
Perm	nit Number:		-		
		YGWA-5D	-		
Perso	on Gauging:		_		
		8/29/2022	-		
	Time:	10:11:00		NI.	N1 / A
1	La carda a Isla	at Continue	Yes	No	N/A
ı	Location Ide			_	_
	a	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	<u> </u>		
	C	Is the well in a high traffic area and does the well require protection from traffic?		Ø	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	v		
	С	Does the casing have a functioning weep hole?			
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	V		
	С	Is the well pad in complete contact with the protective casing?	V		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	V		
	е	Is the pad surface clean (not covered with sediment or debris)?	v		
4	Internal Casi	ng			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	v		
	d	Is the survey point clearly marked on the inner casing?	V		
	е	Is the depth of the well consistent with the original well log?	V		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	\square		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	$\overline{\mathbf{V}}$		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☑		
	С	Does the well require redevelopment (low flow, turbid)?			
6	Based on yo	ur professional judgement, is the well construction / location:			
	, -	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	V		
		and 2) comply with the applicable regulatory requirements?	V		
7	Corrective a	ctions as needed, by date:			
•					
8	Date by whe	en corrective actions are needed:			



		AMA AP-3, A, B and B'			
Perm	nit Number:		1		
		YGWA-20S	-		
Perso	on Gauging:		-		
		8/29/2022	-		
	Time:	09:51:00	Vac	Na	NI/A
1	l osation Ido	ntification.	Yes	No	N/A
'	Location Ide	Is the well visible and accessible?			
	a				
	b	Is the well properly identified with the correct well ID?	☑		
	C	Is the well in a high traffic area and does the well require protection from traffic?			
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	V		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	V		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	$\overline{\mathbf{V}}$		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑		
	е	Is the pad surface clean (not covered with sediment or debris)?	V		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	V		
	d	Is the survey point clearly marked on the inner casing?	$\overline{\mathbf{V}}$		
	е	Is the depth of the well consistent with the original well log?	$\overline{\mathbf{v}}$		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	\square		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?			
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			
	С	Does the well require redevelopment (low flow, turbid)?			
6	Based on vo	our professional judgement, is the well construction / location:			
	, , ,	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	$\overline{\mathbf{V}}$		
		and 2) comply with the applicable regulatory requirements?	$\overline{\mathbf{V}}$		
7	Corrective a	ctions as needed, by date:			
•					
8	Date by whe	en corrective actions are needed:			



		AMA AP-3, A, B and B'	-		
Perm	nit Number:		-		
_	Well ID:		-		
Perso	on Gauging:		-		
		8/29/2022 09:55:00	-		
	ı ime:	09.55.00	Yes	No	N/A
1	Location Ide	entification:	163	INO	IN/A
Į.		Is the well visible and accessible?	\square		
	a				
	b	Is the well properly identified with the correct well ID?			
	C	Is the well in a high traffic area and does the well require protection from traffic?		V	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	\square		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	\square		
	b	Is the well pad sloped away from the protective casing?	\square		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	ing			
	a	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Ø		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	\square		
	е	Is the depth of the well consistent with the original well log?	\square		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand	\square		
		due to lack of grout or use of slip couplings in construction)			
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?			☑
	С	Does the well require redevelopment (low flow, turbid)?		Ø	
6	Based on yo	our professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	V		
7	Corrective a	ctions as needed, by date:			
	No vehicle a	access, down trees			
	Date la				
8	Date by whe	en corrective actions are needed:			



Proje	ct Location:	AP-2			
Pern	nit Number:				
	Well ID:	YGWA-1I			
Perso	on Gauging:	Jessica Ware			
		8/29/2022			
	Time:	11:32:00			
			Yes	No	N/A
1	Location Ide				
	а	Is the well visible and accessible?	Ø		
	b	Is the well properly identified with the correct well ID?	Ø		
	С	Is the well in a high traffic area and does the well require protection from traffic?		$\overline{\checkmark}$	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	₫		
2	Protective C	asing:			
	а	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	Ø		
	С	Does the casing have a functioning weep hole?	Ø		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Casi	· ·			
	а	Does the cap prevent entry of foreign material into the well?	Ø		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?			
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	e	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø		
5	Sampling: G	roundwater Wells Only:			
	a	Does well recharge adequately when purged?	Ø		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø		
	С	Does the well require redevelopment (low flow, turbid)?		$\overline{\checkmark}$	
6		ur professional judgement, is the well construction / location:			
_	- , , -	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	<u></u>		
7	Corrective a	ctions as needed, by date:			-
,	Corrective a	enons as necees, by saice.			
8	Date by whe	en corrective actions are needed:			



Proio	ct Location:	ΔΡ-2			
	nit Number:		1		
		YGWA-1D	1		
Perso	on Gauging:		1		
		8/29/2022	1		
	Time:	11:25:00			
			Yes	No	N/A
1	Location Ide	ntification:			
	a	Is the well visible and accessible?	V		
	b	Is the well properly identified with the correct well ID?	V		
	С	Is the well in a high traffic area and does the well require protection from traffic?		V	
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Ø		
2	Protective C	asing:			
	a	Is the protective casing free from apparent damage and able to be secured?	Ø		
	b	Is the casing free of degradation or deterioration?	V		
	С	Does the casing have a functioning weep hole?	V		
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø		
3	Surface Pad				
	а	Is the well pad in good condition (not cracked or broken)?	Ø		
	b	Is the well pad sloped away from the protective casing?	Ø		
	С	Is the well pad in complete contact with the protective casing?	Ø		
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	V		
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø		
4	Internal Cas	ing			
	a	Does the cap prevent entry of foreign material into the well?	\square		
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	V		
	С	Is the well properly vented for equilibration of air pressure?	Ø		
	d	Is the survey point clearly marked on the inner casing?	Ø		
	е	Is the depth of the well consistent with the original well log?	Ø		
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø		
5	Sampling: G	roundwater Wells Only:			
	а	Does well recharge adequately when purged?	V		
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø		
	С	Does the well require redevelopment (low flow, turbid)?		Ø	
6	Based on yo	ur professional judgement, is the well construction / location:			
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø		
		and 2) comply with the applicable regulatory requirements?	Ø		
7	Corrective a	ctions as needed, by date:			
8	Date by whe	en corrective actions are needed:			

Groundwater Gauging Well Inspection Report



Proje	ct Location:	AP-2					
Pern	nit Number:						
	Well ID:	YGWA-2I					
Perso	on Gauging:	Jessica Ware					
		8/29/2022					
	Time:	11:36:00			1		
			Yes	No	N/A		
1	Location Ide	entification:					
	a	Is the well visible and accessible?	Ø				
	b	Is the well properly identified with the correct well ID?	Ø				
	С	Is the well in a high traffic area and does the well require protection from traffic?		\square			
	d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)						
2	Protective C	asing:					
	а	Is the protective casing free from apparent damage and able to be secured?	Ø				
	b	Is the casing free of degradation or deterioration?	Ø				
	С	Does the casing have a functioning weep hole?	Ø				
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø				
3	Surface Pad						
	a	Is the well pad in good condition (not cracked or broken)?	Ø				
	b	Is the well pad sloped away from the protective casing?	Ø				
	С	Is the well pad in complete contact with the protective casing?	Ø				
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø				
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø				
4	Internal Casi	· ·					
	а	Does the cap prevent entry of foreign material into the well?	\square				
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	\square				
	С	Is the well properly vented for equilibration of air pressure?	Ø				
	d	Is the survey point clearly marked on the inner casing?	Ø				
	e	Is the depth of the well consistent with the original well log?	Ø				
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø				
5	Sampling: G	roundwater Wells Only:					
	a	Does well recharge adequately when purged?	Ø				
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø				
	С	Does the well require redevelopment (low flow, turbid)?		$\overline{\checkmark}$			
6		ur professional judgement, is the well construction / location:					
_	- , , -	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø				
		and 2) comply with the applicable regulatory requirements?	Ø				
7	Corrective a	ctions as needed, by date:			-		
,	Corrective at	caons as necaca, by dute.					
8	Date by whe	en corrective actions are needed:					

Groundwater Gauging Well Inspection Report



	ct Location:	AP-2	-						
Perm	nit Number:	VCIMA 21	-						
D	Well ID: on Gauging:		1						
Perso		8/29/2022	1						
		11:06:00	1						
	i iiiie.		Yes	No	N/A				
1	Location Ide	entification:	1.03		14,71				
·	a	Is the well visible and accessible?	\square						
	b	Is the well properly identified with the correct well ID?	\square						
	С	Is the well in a high traffic area and does the well require protection from traffic?							
	d								
2	Protective C								
	a	Is the protective casing free from apparent damage and able to be secured?	\square						
	b	Is the casing free of degradation or deterioration?	\square						
	С	Does the casing have a functioning weep hole?	\square						
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	\square						
3	Surface Pad								
	a	Is the well pad in good condition (not cracked or broken)?	\square						
	b	Is the well pad sloped away from the protective casing?	$\overline{\mathbf{A}}$						
	С	Is the well pad in complete contact with the protective casing?	\square						
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)							
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø						
4	Internal Casi	ing							
	a	Does the cap prevent entry of foreign material into the well?	Ø						
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	\square						
	С	Is the well properly vented for equilibration of air pressure?	\square						
	d	Is the survey point clearly marked on the inner casing?	Ø						
	е	Is the depth of the well consistent with the original well log?	Ø						
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø						
5	Sampling: G	roundwater Wells Only:							
	a	Does well recharge adequately when purged?	Ø						
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø						
	С	Does the well require redevelopment (low flow, turbid)?		Ø					
6	Based on yo	our professional judgement, is the well construction / location:							
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø						
		and 2) comply with the applicable regulatory requirements?	Ø						
7	Corrective a	ctions as needed, by date:							
8	Date by whe	en corrective actions are needed:							

Groundwater Gauging Well Inspection Report



Proje	ct Location:	AP-2					
Pern	nit Number:						
	Well ID:	YGWA-3D					
Perso	on Gauging:	Jessica Ware					
		8/29/2022					
	Time:	11:08:00			1		
			Yes	No	N/A		
1	Location Ide	entification:					
	a	Is the well visible and accessible?	Ø				
	b	Is the well properly identified with the correct well ID?	Ø				
	С	Is the well in a high traffic area and does the well require protection from traffic?		\square			
	d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)						
2	Protective C	asing:					
	а	Is the protective casing free from apparent damage and able to be secured?	Ø				
	b	Is the casing free of degradation or deterioration?	Ø				
	С	Does the casing have a functioning weep hole?	Ø				
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Ø				
3	Surface Pad						
	a	Is the well pad in good condition (not cracked or broken)?	Ø				
	b	Is the well pad sloped away from the protective casing?	Ø				
	С	Is the well pad in complete contact with the protective casing?	Ø				
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	Ø				
	е	Is the pad surface clean (not covered with sediment or debris)?	Ø				
4	Internal Casi	· ·					
	а	Does the cap prevent entry of foreign material into the well?	\square				
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	\square				
	С	Is the well properly vented for equilibration of air pressure?	Ø				
	d	Is the survey point clearly marked on the inner casing?	Ø				
	е	Is the depth of the well consistent with the original well log?	Ø				
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	Ø				
5	Sampling: G	roundwater Wells Only:					
	a	Does well recharge adequately when purged?	Ø				
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	Ø				
	С	Does the well require redevelopment (low flow, turbid)?		$\overline{\checkmark}$			
6	Based on vo	ur professional judgement, is the well construction / location:					
_	- , , -	appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	Ø				
		and 2) comply with the applicable regulatory requirements?	Ø				
7	Corrective a	ctions as needed, by date:			-		
,	Corrective at	caons as necaca, by dute.					
8	Date by whe	en corrective actions are needed:					

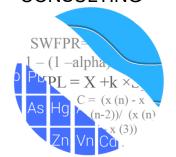
Appendix C

Statistical Analysis

Appendix III Statistically Significant Increase Summary (July through December 2022)

Appendix III Parameter	August 2022
Boron	YGWC-44, YGWC-45, YGWC-46A
Calcium	YGWC-45, YGWC-46A, YGWC-52
Chloride	YGWC-44, YGWC-46A
Sulfate	YGWC-45, YGWC-46A
Total Dissolved Solids	YGWC-44, YGWC-45, YGWC-46A, YGWC-52

GROUNDWATER STATS CONSULTING



February 28, 2023

Southern Company Services Attn: Ms. Lauren Coker 241 Ralph McGill Blvd NE, Bin 10160 Atlanta, Georgia 30308-3374

Re: Plant Yates Ash Pond 1 (AP-1)

August 2022 Sample Event Analysis

Dear Ms. Coker,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the August 2022 semi-annual Groundwater Detection and Assessment Monitoring statistical analysis for Georgia Power Company's Plant Yates AP-1. 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 (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

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

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

Upgradient wells:

- **AP-1:** YGWA-47
- AP-2: YGWA-1D, YGWA-1I, YGWA-2I, YGWA-3D, YGWA-3I, YGWA-14S and, YGWA-30I

- Gypsum Landfill: GWA-2
- AMA-R6: YGWA-17S, YGWA-18I, YGWA-18S, YGWA-20S, YGWA-21I, YGWA-39, YGWA-40, YGWA-4I, YGWA-5D, and YGWA-5I
- Downgradient wells: YGWC-44, YGWC-45, YGWC-46A, and YGWC-52

Note that well YGWC-52 was installed in June 2020, and baseline sampling began in August 2020. Well YGWC-46 was abandoned in June 2020, and baseline sampling began at well YGWC-46A in July 2020 to supplement existing data in well YGWC-46. Data from well YGWC-46 were screened during the 2019 evaluation, and the findings of that report are summarized below. In the current analysis, reported observations from the August 2022 sample event for Appendix III constituents at YGWC-46A are compared to interwell prediction limits i.e., are treated the same as Appendix III data from the other downgradient wells. Data from wells YGWC-46A and YGWC-46A are plotted under well YGWC-46A.

Confidence intervals have been used to evaluate the combined data from both wells YGWC-46 and YGWC-46A for the Appendix IV constituents. All concentrations from both wells are below established MCLs. When a minimum of 8 samples had been collected from new well YGWC-46A; the Mann-Whitney test of medians was used to evaluate whether the medians of both wells are statistically different for Appendix IV constituents. In cases where statistically significant differences are identified at the 99% confidence level, the historical record is truncated so that only data from new well YGWC-46A, which may be more representative of present-day groundwater quality, are evaluated with confidence interval comparisons to respective Groundwater Protection Standards. This process is described below.

All data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting.

The CCR program consists of the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- 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

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Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter.

Combined upgradient well data from all units at Plant Yates are utilized to construct statistical limits for Appendix III and IV parameters.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data and this generally gives the most conservative limit in each case. On time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group. For interwell prediction and tolerance limits, a single reporting limit substitution is used across upgradient wells for a given parameter. Regarding the case of cobalt, due to varying detection limits in individual wells, the most recent reporting limit of 0.005 mg/L was substituted across all wells for all calculations and reports.

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).

Summary of Statistical Methods – Appendix III and IV Parameters

Based on the April 2019 evaluation and state and federal regulatory requirements described below, the following methods were selected for Appendix III and IV constituents:

- Appendix III: Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- Appendix IV: Confidence intervals for antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) 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 non-detects, a nonparametric test is utilized. While the false positive rate associated with the parametric prediction 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 prediction limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling non-detects (USEPA, 2009):

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

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 – Appendix III and IV Constituents - Conducted in April 2019

Outlier Analysis

For the original well network which consisted of upgradient well YGWA-47 and downgradient wells YGWC-44, YGWC-45, and YGWC-46, time series plots were used to identify suspected outliers or extreme values that would result in limits that are not representative of the current background data population. All other upgradient well data

from neighboring units were previously screened for outliers with their respective reports. Suspected outliers at all wells for Appendix III and IV parameters were 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. Tukey's test results followed the screening.

Using the Tukey box plot method, a couple outliers were identified. 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.

The reported non-detect value of 0.01 mg/L for cobalt at well YGWC-45 and the detected value of 6.3 s.u. for pH at well YGWA-47 were flagged as outliers because they were both unusually high during a single event compared to all other values at neighboring wells. The high non-detect value for cobalt does not provide any useful information. 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.

<u>Seasonality</u>

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.

Trend Test Evaluation

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 well YGWA-47 and downgradient wells YGWC-44, YGWC-45, and YGWC-46 to identify whether statistically significant increasing or decreasing trends were present. The trend analyses showed a statistically significant increasing trend for lithium in well YGWC-46.

The reports were submitted with the background screening analysis, and all other upgradient wells at neighboring units were evaluated for trends with their respective reports. 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. While no records required adjustment at the time of the screening, if that is necessary in the future, a summary report will be provided to show the date ranges used in construction of the statistical limits

<u>Appendix III – Determination of Spatial Variation</u>

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 or intrawell). However, only one upgradient well was present at the time of the screening and the ANOVA requires a minimum of two wells. Therefore, the ANOVA was not utilized in the background screening.

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 – August 2022

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. No new values were flagged for Appendix III parameters, and a summary of flagged outliers follows this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical pooled upgradient well data through August 2022 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an

individual constituent. The August 2022 sample from each downgradient well is compared to the background limit to determine whether statistically significant increases (SSIs) are present.

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. Therefore, no exceedance is noted, and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter. Prediction limit exceedances were noted for the following Appendix III well/constituent pairs:

Boron: YGWC-44, YGWC-45, and YGWC-46A
 Calcium: YGWC-45, YGWC-46A, and YGWC-52

Chloride: YGWC-44 and YGWC-46ASulfate: YGWC-45 and YGWC-46A

TDS: YGWC-44, YGWC-45, YGWC-46A, and YGWC-52

Note that in order to maintain a statistical limit that is conservative from a regulatory perspective, an interwell parametric prediction limit was constructed for TDS.

<u>Trend Test Evaluation – Appendix III</u>

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of natural variability in groundwater unrelated to practices at the site. Both a summary and complete graphical results of the trend tests follow this report. No statistically significant increasing trends were identified for any downgradient wells. The following statistically significant trends were identified:

Increasing

Calcium: YGWA-1D, YGWA-21I, YGWA-17S, and GWA-2 (all upgradient)
 Chloride: GWA-2, YGWA-17S, YGWA-18I, YGWA-20S, and YGWA-40

(all upgradient)

Sulfate: YGWA-1D, YGWA-3D, YGWA-3I, YGWA-5I, and GWA-2

(all upgradient)

• TDS: GWA-2 and YGWA-39 (both upgradient)

Decreasing

• Boron: YGWA-40 (upgradient)

• Calcium: YGWA-11, YGWA-5D, YGWA-18S, and YGWA-47 (all upgradient)

Chloride: YGWA-3D, YGWA-5D, and YGWA-47 (all upgradient)
 Sulfate: YGWA-5D (upgradient), YGWA-39 (upgradient),

YGWA-40 (upgradient), YGWA-47 (upgradient), YGWC-45, and

YGWC-46A

• TDS: YGWA-5D and YGWA-47 (both upgradient)

A complete list of trend test results and all statistically significant increasing and decreasing trends may be found following this letter in the Trend Test Summary Table.

Statistical Analysis of Appendix IV Parameters – August 2022

For analysis of Appendix IV parameters, confidence intervals for each downgradient well/constituent pair were compared against corresponding Groundwater Protection Standards (GWPS). GWPS were developed as described below. Downgradient well/constituent pairs that have 100% non-detects or trace values below the reporting limits do not require analysis. Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis.

A high value of 0.075 mg/L for cobalt at upgradient well GWA-2 from the August 2022 sample event was flagged in order to maintain statistical limits that are conservative (i.e., lower) from a regulatory perspective. The more recent reported measurements since August 2020 were previously flagged as these measurements were two orders of magnitude higher than remaining measurements at this well. If further studies indicate these measurements represent natural variation in groundwater quality, the values will be re-evaluated for construction of interwell prediction limits. A summary of flagged outliers follows this report (Figure C).

Mann-Whitney Test of Medians

During the previous analysis, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of observations sampled before July 2020 at abandoned well YGWC-46 to the medians of the 8 most recent observations sampled at well YGWC-46A through February 2022 for each Appendix IV parameter. When no variation is present

between historical data and compliance samples, the Mann-Whitney test is not performed, which is the case for beryllium, chromium, and selenium. Significant differences were identified for barium, cobalt, and lithium at the 99% confidence level; therefore, the records were not combined. The earlier data are shown on the time series as disconnected point and in a lighter font on the data pages. Cadmium, combined radium 226 + 228, mercury, and thallium did not yet have 8 samples beyond July 2020 due to historical sampling procedures; therefore, they were not tested at that time.

During this analysis, combined radium 226 + 228 was analyzed with the Mann-Whitney test to compare the medians of observations sampled before July 2020 at abandoned well YGWC-46 to the medians the 8 most recent observations sampled at well YGWC-46A through August 2022 (Figure F). Cadmium, mercury, and thallium did not have sufficient samples beyond July 2020 to be compared at this time. When the medians of the two groups are statistically significantly different at the 99% confidence level (like barium, cobalt, and lithium from the previous report), the historical data sampled from abandoned well YGWC-46 are truncated to only use data from well YGWC-46A. No significant results were identified for combined radium 226 + 228; therefore, no truncation was required. A list of the constituents using truncated records follows this report.

Interwell Upper Tolerance Limits

Interwell tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through August 2022 for Appendix IV constituents (Figure G). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution. When data contained greater than 50% non-detects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. When the alpha level (or false positive rate) for a nonparametric limit is shown as NaN in the results table, it indicates that the background sample size is large enough such that the resulting alpha level is too small to display in the results table.

Groundwater Protection Standards

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). On July 30, 2018, US EPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Effective on February 22, 2022, Georgia EPD incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). In accordance with the updated Rules, the GWPS is:

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

Following Georgia EPD Rule requirements and the Federal CCR requirements, GWPS were established for statistical comparison of Appendix IV constituents for this sample event (Figure H).

Confidence Intervals

To complete the statistical comparison to GWPS, confidence intervals using data through August 2022 were constructed for each of the Appendix IV constituents in each downgradient well with 4 or more samples (Figure I). Beryllium and selenium were 100% non-detects at all downgradient wells.

The Sanitas software was used to calculate the tolerance limits and the confidence intervals, either parametric or nonparametric, as appropriate. Confidence intervals were compared to the GWPS prepared as described above. 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. Summaries of the confidence interval results, along with graphical comparison against GWPS follow this letter. No exceedances were identified.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Yates AP-1. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Andrew T. Collins

Project Manager

Kristina L. Rayner Senior Statistician

Kristina Rayner

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

100% Non-Detects: Appendix IV Downgradient

Analysis Run 10/7/2022 9:40 AM View: Appendix IV - Confidence Intervals Plant Yates Client: Southern Company Data: Yates Ash Pond1

Antimony (mg/L) YGWC-44, YGWC-52

Arsenic (mg/L) YGWC-52

Beryllium (mg/L) YGWC-44, YGWC-45, YGWC-46A, YGWC-52

Cadmium (mg/L) YGWC-44, YGWC-45, YGWC-52

Chromium (mg/L) YGWC-44, YGWC-46A

Lead (mg/L) YGWC-44

Mercury (mg/L) YGWC-52

Molybdenum (mg/L) YGWC-52

Selenium (mg/L) YGWC-44, YGWC-45, YGWC-46A, YGWC-52

Thallium (mg/L) YGWC-45, YGWC-52 Sanitas™ v.9.6.35 Groundwater Stats Consulting. UC

Page 1

Date Ranges

Date: 10/6/2022 1:57 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Barium (mg/L) YGWC-46A overall:7/6/2020-8/31/2022 Cobalt (mg/L) YGWC-46A overall:7/6/2020-8/31/2022 Lithium (mg/L) YGWC-46A overall:7/6/2020-8/31/2022

Appendix III Interwell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 4:56 PM Constituent <u>Well</u> Upper Lim. Lower Lim. Date Observ. Sig. Bg N Bg Mean Std. Dev. %NDs ND Adj. Transform Alpha Method Boron, total (mg/L) YGWC-44 0.16 n/a 8/31/2022 0.54 Yes 350 n/a 48.57 n/a 0.00004922 NP Inter (normality) 1 of 2 n/a n/a Boron, total (mg/L) YGWC-45 0.16 n/a 8/31/2022 0.33 Yes 350 n/a n/a 48.57 n/a n/a 0.00004922 NP Inter (normality) 1 of 2 Boron, total (mg/L) YGWC-46A 8/31/2022 2.1 Yes 350 n/a 48.57 n/a 0.00004922 NP Inter (normality) 1 of 2 0.16 n/a n/a n/a Calcium, total (mg/L) YGWC-45 37 8/31/2022 51.8 Yes 350 n/a 0.8571n/a 0.00004922 NP Inter (normality) 1 of 2 Calcium, total (mg/L) YGWC-46A 37 8/31/2022 110 Yes 350 n/a 0.8571n/a 0.00004922 NP Inter (normality) 1 of 2 n/a n/a n/a Calcium, total (mg/L) YGWC-52 37 8/31/2022 41.8 Yes 350 n/a 0.8571n/a 0.00004922 NP Inter (normality) 1 of 2 Chloride, Total (mg/L) YGWC-44 8/31/2022 14.5 Yes 350 n/a 0.00004922 NP Inter (normality) 1 of 2 12 n/a n/a n/a n/a Chloride, Total (mg/L) YGWC-46A 12 8/31/2022 29.9 Yes 350 n/a 0.00004922 NP Inter (normality) 1 of 2 YGWC-45 8/31/2022 177 0.00004922 NP Inter (normality) 1 of 2 Sulfate as SO4 (mg/L) 160 n/a Yes 350 n/a n/a n/a n/a Sulfate as SO4 (mg/L) YGWC-46A 160 n/a 8/31/2022 459 Yes 350 n/a n/a 0.00004922 NP Inter (normality) 1 of 2 Yes 350 10.07 Total Dissolved Solids [TDS] (mg/L) YGWC-44 8/31/2022 343 Param Inter 1 of 2 211.5 n/a 2.588 0.5714None sqrt(x) 0.00188 Total Dissolved Solids [TDS] (mg/L) YGWC-45 8/31/2022 445 Yes 350 10.07 211.5 n/a 0.5714None sqrt(x) 0.00188 Param Inter 1 of 2 Total Dissolved Solids [TDS] (mg/L) YGWC-46A 8/31/2022 948 Yes 350 10.07 Param Inter 1 of 2 211.5 n/a 2.588 0.5714None sqrt(x) 0.00188 Total Dissolved Solids [TDS] (mg/L) YGWC-52 211.5 8/31/2022 266 Yes 350 10.07 2.588 0.5714None sqrt(x) 0.00188 Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 4:56 PM

Constituent	Well	Upper Lim	. Lower Lim	. Date	Observ.	Sig. Bg N Bg Mear	Std. Dev.	%NDs ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	YGWC-44	0.16	n/a	8/31/2022	0.54	Yes 350 n/a	n/a	48.57 n/a	n/a		NP Inter (normality) 1 of 2
Boron, total (mg/L)	YGWC-45	0.16	n/a	8/31/2022	0.33	Yes 350 n/a	n/a	48.57 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Boron, total (mg/L)	YGWC-46A	0.16	n/a	8/31/2022	2.1	Yes 350 n/a	n/a	48.57 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Boron, total (mg/L)	YGWC-52	0.16	n/a	8/31/2022	0.04ND	No 350 n/a	n/a	48.57 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	YGWC-44	37	n/a	8/31/2022	30.8	No 350 n/a	n/a	0.8571n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	YGWC-45	37	n/a	8/31/2022	51.8	Yes 350 n/a	n/a	0.8571n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	YGWC-46A	37	n/a	8/31/2022	110	Yes 350 n/a	n/a	0.8571n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	YGWC-52	37	n/a	8/31/2022	41.8	Yes 350 n/a	n/a	0.8571n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	YGWC-44	12	n/a	8/31/2022	14.5	Yes 350 n/a	n/a	0 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	YGWC-45	12	n/a	8/31/2022	5.4	No 350 n/a	n/a	0 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	YGWC-46A	12	n/a	8/31/2022	29.9	Yes 350 n/a	n/a	0 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	YGWC-52	12	n/a	8/31/2022	3.4	No 350 n/a	n/a	0 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	YGWC-44	0.68	n/a	8/31/2022	0.055J	No 419 n/a	n/a	65.63 n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	YGWC-45	0.68	n/a	8/31/2022	0.1	No 419 n/a	n/a	65.63 n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	YGWC-46A	0.68	n/a	8/31/2022	0.12	No 419 n/a	n/a	65.63 n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	YGWC-52	0.68	n/a	8/31/2022	0.059J	No 419 n/a	n/a	65.63 n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	YGWC-44	8.39	4.4	8/31/2022	5.77	No 429 n/a	n/a	0 n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH, Field (S.U.)	YGWC-45	8.39	4.4	8/31/2022	6.56	No 429 n/a	n/a	0 n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH, Field (S.U.)	YGWC-46A	8.39	4.4	8/31/2022	6.87	No 429 n/a	n/a	0 n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH, Field (S.U.)	YGWC-52	8.39	4.4	8/31/2022	5.58	No 429 n/a	n/a	0 n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	YGWC-44	160	n/a	8/31/2022	130	No 350 n/a	n/a	6 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	YGWC-45	160	n/a	8/31/2022	177	Yes 350 n/a	n/a	6 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	YGWC-46A	160	n/a	8/31/2022	459	Yes 350 n/a	n/a	6 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	YGWC-52	160	n/a	8/31/2022	122	No 350 n/a	n/a	6 n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	YGWC-44	211.5	n/a	8/31/2022	343	Yes 350 10.07	2.588	0.5714None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	YGWC-45	211.5	n/a	8/31/2022	445	Yes 350 10.07	2.588	0.5714None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	YGWC-46A	211.5	n/a	8/31/2022	948	Yes 350 10.07	2.588	0.5714None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	YGWC-52	211.5	n/a	8/31/2022	266	Yes 350 10.07	2.588	0.5714None	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results Plant Yates | Client: Southern Company | Data: Yates Ash Pond1 | Printed 10/6/2022, 5:04 PM

	Plant Yates	Client: Southern Company	Data: Yates	Ash Pond	11 Printed	10/6/	2022, 5	:04 PM				
Constituent	Well		Slope	Calc.	Critical	Sig.	<u>N</u>	%NDs	Normality	<u>Xform</u>	<u>Alpha</u>	Method
Boron, total (mg/L)	YGWA-40 (bg)		-0.01529	-77	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-47 (bg)		-1.342	-95	-58	Yes	16	6.25	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-17S (bg)		0.1364	109	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-18S (bg)		-0.08039	-114	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-21I (bg)		0.9751	97	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-5D (bg)		-1.676	-100	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	GWA-2 (bg)		3.453	82	63	Yes	17	5.882	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-1D (bg)		0.6514	86	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-1I (bg)		-0.09504	-93	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-47 (bg)		-0.4528	-84	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-17S (bg)		0.5433	127	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-18I (bg)		0.1027	78	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-20S (bg)		0.1337	107	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-40 (bg)		0.326	66	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-5D (bg)		-0.7454	-124	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	GWA-2 (bg)		0.2567	74	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-3D (bg)		-0.0435	-80	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-47 (bg)		-17.58	-107	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWC-45		-5.687	-69	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-39 (bg)		-2.631	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-40 (bg)		-8.899	-89	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-5D (bg)		-2.862	-129	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-5I (bg)		0.08795	115	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	GWA-2 (bg)		17.26	87	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-1D (bg)		0.9733	121	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-3D (bg)		0.3364	89	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-3I (bg)		1.016	86	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWC-46A		-50.31	-91	-81	Yes	20	5	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-47 (bg)		-14.82	-90	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-39 (bg)		30.24	64	58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-5D (bg)		-12.99	-99	-74	Yes	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	GWA-2 (bg)		21.5	67	63	Yes	17	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

	Plant Yates Client: Southern Compa	ny Data: Yate	s Ash Pon	nd1 Printe	ed 10/6	/2022, 5	5:04 PM				
Constituent	<u>Well</u>	Slope	Calc.	Critical	Sig.	<u>N</u>	%NDs	Normality	<u>Xform</u>	<u>Alpha</u>	Method
Boron, total (mg/L)	YGWA-47 (bg)	-0.0008357	-55	-58	No	16	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWC-44	-0.02074	-55	-58	No	16	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWC-45	0	-2	-58	No	16	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-17S (bg)	0.0001704	22	74	No	19	10.53	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-18I (bg)	0	-22	-74	No	19	78.95	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-18S (bg)	0.000309	24	74	No	19	21.05	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-20S (bg)	0	-9	-74	No	19	89.47	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-21I (bg)	-0.0004731	-56	-74	No	19	57.89	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-39 (bg)	0.01331	56	58	No	16	6.25	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-40 (bg)	-0.01529	-77	-58	Yes	16	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-4I (bg)	0	1	74	No	19	68.42	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-5D (bg)	0.0003037	31	74	No	19	10.53	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-5I (bg)	0	-25	-74	No	19	63.16	n/a	n/a	0.01	NP
Boron, total (mg/L)	GWA-2 (bg)	0	23	63	No	17	64.71	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-14S (bg)	-0.000665	-40	-74	No	19	10.53	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-1D (bg)	0.0008221	34	74	No	19	36.84	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-1I (bg)	0	-8	-74	No	19	73.68	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-2I (bg)	0	-6	-74	No	19	78.95	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-30I (bg)	0	-19	-74	No	19	84.21	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-3D (bg)	0	0	74	No	19	57.89	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-3I (bg)	0	-17	-74	No	19	89.47	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWC-46A	0.07014	47	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-47 (bg)	-1.342	-95	-58	Yes	16	6.25	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWC-45	-0.03813	-6	-58	No	16	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-17S (bg)	0.1364	109	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-18I (bg)	0.04637	26	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-18S (bg)	-0.08039	-114	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-20S (bg)	0.03848	54	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-21I (bg)	0.9751	97	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-39 (bg)	1.273	55	58	No	16	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-40 (bg)	-0.6546	-42	-58	No	16	6.25	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-4I (bg)	0.04736	10	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-5D (bg)	-1.676	-100	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-5I (bg)	0.06231	74	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	GWA-2 (bg)	3.453	82	63	Yes	17	5.882	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-14S (bg)	0	-15	-74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-1D (bg)	0.6514	86	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-1I (bg)	-0.09504	-93	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-2I (bg)	0.08578	13	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-30I (bg)	0.0125	31	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-3D (bg)	0.4525	59	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-3I (bg)	0.5467	60	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWC-46A	2.783	78	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWC-52	-6.094	-18	-21	No	8	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-47 (bg)	-0.4528	-84	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWC-44	0.1746	42	58	No	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-17S (bg)	0.5433	127	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-18I (bg)	0.1027	78	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-18S (bg)	0.1557	72	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-20S (bg)	0.1337	107	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-21I (bg)	-0.1148	-56	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-39 (bg)	0.768	51	58	No	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-40 (bg)	0.326	66	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-4I (bg)	0.08123	41	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-5D (bg)	-0.7454	-124	-74	Yes	19	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results Plant Yates Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 5:04 PM

	Plant Yates Client: Southern Compan	ny Data: Yate	s Ash Pon	nd1 Printe	ed 10/6	/2022, \$	5:04 PM				
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	<u>Xform</u>	<u>Alpha</u>	Method
Chloride, Total (mg/L)	YGWA-5I (bg)	0	5	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	GWA-2 (bg)	0.2567	74	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-14S (bg)	0.1251	51	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-1D (bg)	0	-37	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-1I (bg)	-0.01802	-38	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-2I (bg)	-0.02221	-34	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-30I (bg)	0	-8	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-3D (bg)	-0.0435	-80	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-3I (bg)	-0.02929	-65	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWC-46A	-0.8443	-37	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-47 (bg)	-17.58	-107	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWC-45	-5.687	-69	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-17S (bg)	0.04813	32	74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-18I (bg)	-0.1345	-67	-74	No	19	21.05	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-18S (bg)	-0.1232	-53	-74	No	19	10.53	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-20S (bg)	0	42	74	No	19	68.42	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-21I (bg)	-0.2256	-45	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-39 (bg)	-2.631	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-40 (bg)	-8.899	-89	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-4I (bg)	0.04641	22	74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-5D (bg)	-2.862	-129	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-5I (bg)	0.08795	115	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	GWA-2 (bg)	17.26	87	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-14S (bg)	0	-4	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-1D (bg)	0.9733	121	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-1I (bg)	-0.1053	-22	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-2I (bg)	1.041	62	74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-30I (bg)	-0.01853	-15	-74	No	19	10.53	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-3D (bg)	0.3364	89	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-3I (bg)	1.016	86	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWC-46A	-50.31	-91	-81	Yes	20	5	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-47 (bg)	-14.82	-90	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWC-44	-5.653	-31	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWC-45	-0.1836	-2	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-17S (bg)	3.694	44	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-18I (bg)	-0.8196	-19	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-18S (bg)	0.4345	10	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-20S (bg)	2.688	34	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-21I (bg)	10.54	68	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-39 (bg)	30.24	64	58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-40 (bg)	-11.03	-58	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-4I (bg)	0	-1	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-5D (bg)	-12.99	-99	-74	Yes	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-5I (bg)	0	3	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	GWA-2 (bg)	21.5	67	63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-14S (bg)	0.3698	12	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-1D (bg)	0.7444	13	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-1I (bg)	-2.443	-37	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-2I (bg)	-1.72	-28	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-30I (bg)	2.114	27	74	No	19	10.53		n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-3D (bg)	0.7739	9	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-3I (bg)	0.954	9	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWC-46A	-49.58	-46	-81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWC-52	-36.62	-18	-21	No	8	0	n/a	n/a	0.01	NP

Welch's t-test/Mann-Whitney - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/7/2022, 9:30 AM

 Constituent
 Well
 Calc.
 0.01
 Method

 Combined Radium 226 + 228 (pCi/L)
 YGWC-46A
 2.084
 No
 Mann-W

Upper Tolerance Limit Summary Table

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 5:00 PM Well Constituent Upper Lim. Lower Lim. Date Observ. Sig.Bg N Bg Mean Std. Dev. %NDs ND Adj. Transform Alpha Method n/a 372 n/a 87.63 n/a Antimony (mg/L) n/a 0.0047 n/a n/a n/a n/a NaN NP Inter(NDs) n/a 420 n/a 74.76 n/a Arsenic (mg/L) n/a 0.005 n/a n/a n/a n/a n/a NaN NP Inter(NDs) Barium (mg/L) n/a 0.071 n/a n/a 420 n/a n/a 2.619 n/a NaN NP Inter(normality) n/a n/a n/a Beryllium (mg/L) n/a 0.0005 n/a n/a 404 n/a 80.2 n/a NaN NP Inter(NDs) Cadmium (mg/L) n/a 0.00063 n/a n/a n/a n/a 404 n/a n/a 95.54 n/a n/a NaN NP Inter(NDs) Chromium (mg/L) n/a 0.0093 n/a n/a 372 n/a 80.11 n/a n/a NaN NP Inter(NDs) Cobalt (mg/L) NP Inter(NDs) 0.035 n/a n/a 414 n/a 69.32 n/a NaN n/a n/a n/a n/a n/a Combined Radium 226 + 228 (pCi/L) 6.92 n/a 399 n/a 0 n/a NaN NP Inter(normality) Fluoride, total (mg/L) 0.68 n/a 419 n/a 65.63 n/a NP Inter(NDs) n/a n/a n/a n/a n/a n/a NaN Lead (mg/L) 0.0013 n/a 374 n/a 85.29 n/a n/a NaN NP Inter(NDs) n/a Lithium (mg/L) n/a 0.03 n/a 399 n/a 26.32 n/a NaN NP Inter(normality) n/a n/a n/a n/a Mercury (mg/L) 0.00064 n/a 328 n/a 93.29 n/a NaN NP Inter(NDs) Molybdenum (mg/L) 0.014 n/a 363 n/a 60.33 n/a NaN NP Inter(NDs) n/a n/a n/a n/a n/a n/a Selenium (mg/L) n/a n/a 402 n/a 92.29 n/a n/a NaN NP Inter(NDs) Thallium (mg/L) n/a 338 n/a 97.04 n/a NP Inter(NDs) n/a 0.001 n/a n/a n/a n/a n/a NaN

YATES ASH POND 1 GWPS												
		CCR-Rule	Background									
Constituent Name	MCL	Specified	Limit	GWPS								
Antimony, Total (mg/L)	0.006		0.0047	0.006								
Arsenic, Total (mg/L)	0.01		0.005	0.01								
Barium, Total (mg/L)	2		0.071	2								
Beryllium, Total (mg/L)	0.004		0.0005	0.004								
Cadmium, Total (mg/L)	0.005		0.00063	0.005								
Chromium, Total (mg/L)	0.1		0.0093	0.1								
Cobalt, Total (mg/L)		0.006	0.035	0.035								
Combined Radium, Total (pCi/L)	5		6.92	6.92								
Fluoride, Total (mg/L)	4		0.68	4								
Lead, Total (mg/L)		0.015	0.0013	0.015								
Lithium, Total (mg/L)		0.04	0.03	0.04								
Mercury, Total (mg/L)	0.002		0.00064	0.002								
Molybdenum, Total (mg/L)		0.1	0.014	0.1								
Selenium, Total (mg/L)	0.05		0.005	0.05								
Thallium, Total (mg/L)	0.002		0.001	0.002								

^{*}Grey cell indicates Background Limit is higher than MCL or CCR Rule Specified Level

^{*}MCL = Maximum Contaminant Level

^{*}CCR = Coal Combustion Residual

^{*}GWPS = Groundwater Protection Standard

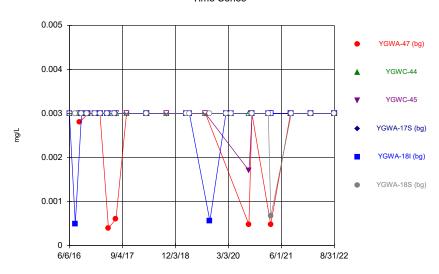
Confidence Intervals - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/7/2022, 9:42 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliano	e Lower Compl.	Sig.	<u>N</u>	<u>Mean</u>	Std. Dev.	%ND:	s <u>ND Adj.</u>	Transform	Alpha	Method
Antimony (mg/L)	YGWC-45	0.003	0.0017	0.006	n/a	No	1	5 0.002913	0.0003357	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-46A	0.003	0.00029	0.006	n/a	No	18	8 0.002849	0.0006388	94.44	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-44	0.005	0.00086	0.01	n/a	No	17	7 0.003743	0.00201	70.59	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-45	0.005	0.00078	0.01	n/a	No	17	7 0.003983	0.00189	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-46A	0.005	0.00091	0.01	n/a	No	20	0.002505	0.001908	35	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-44	0.1127	0.09274	2	n/a	No	17	7 0.1027	0.01591	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-45	0.06973	0.05704	2	n/a	No	17	7 0.06338	0.01013	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-46A	0.04742	0.03969	2	n/a	No	9	0.04356	0.004003	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-52	0.02056	0.01769	2	n/a	No	8	0.01913	0.001356	0	None	No	0.01	Param.
Cadmium (mg/L)	YGWC-46A	0.0005	0.00012	0.005	n/a	No	17	7 0.0004318	0.000152	82.35	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-45	0.0061	0.0006	0.1	n/a	No	1	5 0.004485	0.001607	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-52	0.005	0.00073	0.1	n/a	No	8	0.002966	0.002178	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	YGWC-44	0.003716	0.001775	0.035	n/a	No	17	7 0.003129	0.002594	5.882	None	ln(x)	0.01	Param.
Cobalt (mg/L)	YGWC-45	0.0008355	0.0006283	0.035	n/a	No	16	6 0.0007319	0.0001593	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-46A	0.002855	0.0006349	0.035	n/a	No	9	0.001736	0.001315	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	YGWC-52	0.001998	0.001142	0.035	n/a	No	8	0.00157	0.000404	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L) YGWC-44	0.945	0.2735	6.92	n/a	No	17	7 0.6797	0.6197	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L) YGWC-45	1.486	0.9125	6.92	n/a	No	17	7 1.199	0.4576	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L) YGWC-46A	1.698	1.055	6.92	n/a	No	20	0 1.376	0.5668	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L) YGWC-52	0.9369	0.302	6.92	n/a	No	7	0.647	0.2772	0	None	x^2	0.01	Param.
Fluoride, total (mg/L)	YGWC-44	0.12	0.07	4	n/a	No	18	8 0.09361	0.01908	77.78	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	YGWC-45	0.2	0.075	4	n/a	No	18	8 0.1588	0.1589	22.22	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	YGWC-46A	0.12	0.084	4	n/a	No	2	1 0.1109	0.06364	23.81	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	YGWC-52	0.1	0.059	4	n/a	No	8	0.09488	0.0145	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	YGWC-45	0.001	0.0001	0.015	n/a	No	1	5 0.00094	0.0002324	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-46A	0.001	0.000044	0.015	n/a	No	18	8 0.0009469	0.0002253	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-52	0.001	0.00006	0.015	n/a	No	8	0.0005379	0.0004941	50	None	No	0.004	NP (normality)
Lithium (mg/L)	YGWC-44	0.01347	0.01249	0.04	n/a	No	17	7 0.01298	0.0007798	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-45	0.0147	0.012	0.04	n/a	No	17	7 0.01313	0.001551	0	None	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-46A	0.01437	0.01163	0.04	n/a	No	9	0.013	0.001414	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-52	0.004649	0.003951	0.04	n/a	No	8	0.0043	0.0003295	0	None	No	0.01	Param.
Mercury (mg/L)	YGWC-44	0.0002	0.00006	0.002	n/a	No	13	3 0.0001892	0.00003883	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	YGWC-45	0.0002	0.000071	0.002	n/a	No	13	3 0.0001901	0.00003578	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	YGWC-46A	0.0002	0.00007	0.002	n/a	No	1	5 0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-44	0.01	0.0005	0.1	n/a	No	17	7 0.009441	0.002304	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-45	0.0024	0.0011	0.1	n/a	No	17	7 0.002924	0.003392	17.65	None	No	0.01	NP (normality)
Molybdenum (mg/L)	YGWC-46A	0.003669	0.001669	0.1	n/a	No	20	0 0.00325	0.002986	15	None	In(x)	0.01	Param.
Thallium (mg/L)	YGWC-44	0.001	80000.0	0.002	n/a	No	1	5 0.0009387	0.0002375	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-46A	0.001	0.000073	0.002	n/a	No	17	7 0.0009455	0.0002248	94.12	None	No	0.01	NP (NDs)

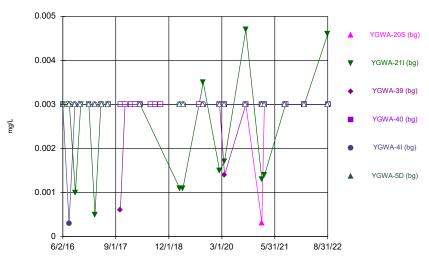
FIGURE A.





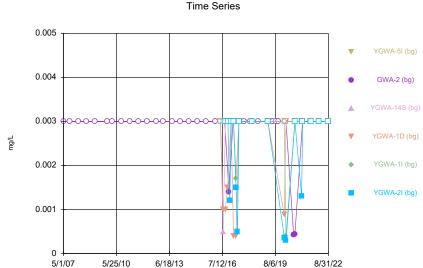
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Antimony Analysis Run 10/6/2022 4:37 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

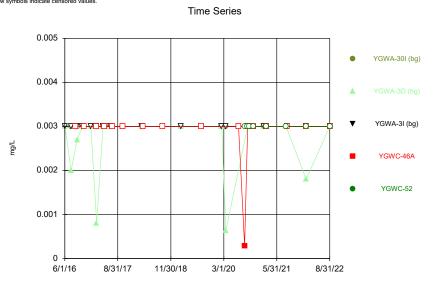
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



Constituent: Antimony Analysis Run 10/6/2022 4:37 PM

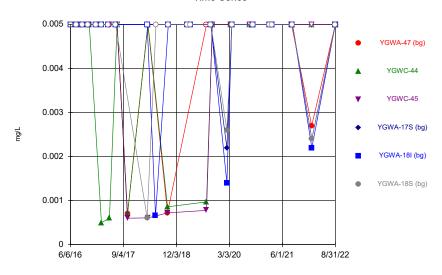
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



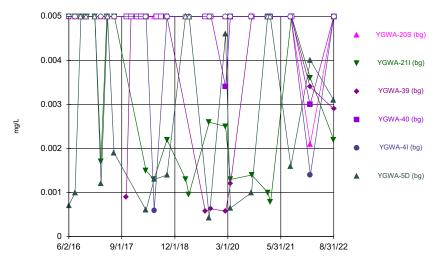
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Plant Yates Client: Southern Company Data: Yates Ash Pond1





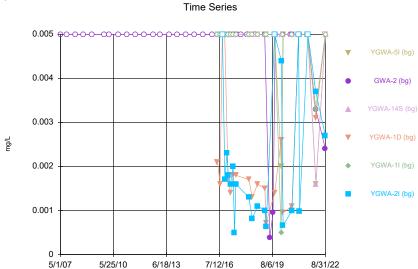
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



Constituent: Arsenic Analysis Run 10/6/2022 4:37 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

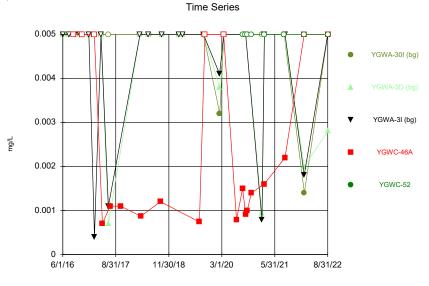
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Constituent: Arsenic Analysis Run 10/6/2022 4:37 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

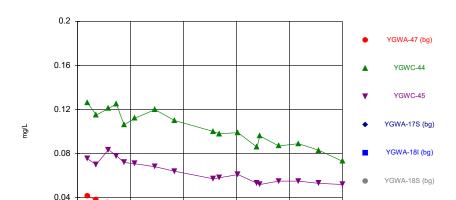
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Constituent: Arsenic Analysis Run 10/6/2022 4:37 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

6/6/16

9/4/17



Time Series

Constituent: Barium Analysis Run 10/6/2022 4:37 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

3/3/20

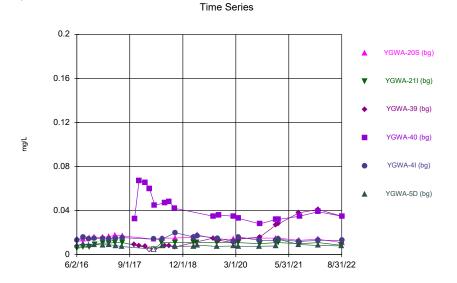
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12/3/18

8/31/22

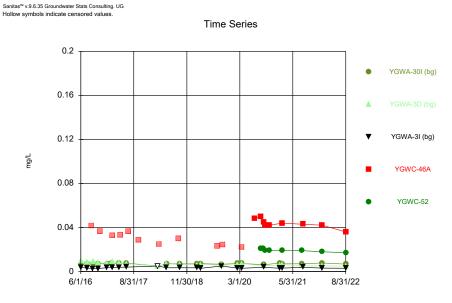
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



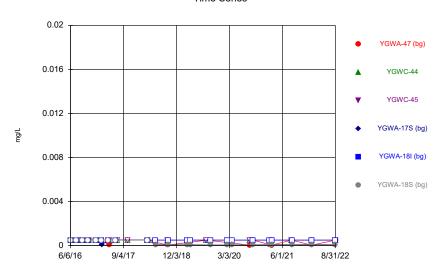
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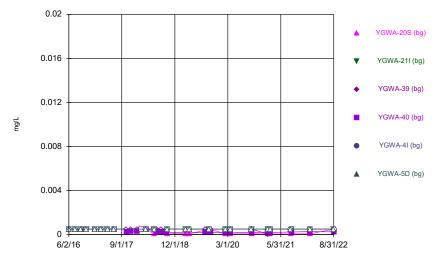


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Plant Yates Client: Southern Company Data: Yates Ash Pond1



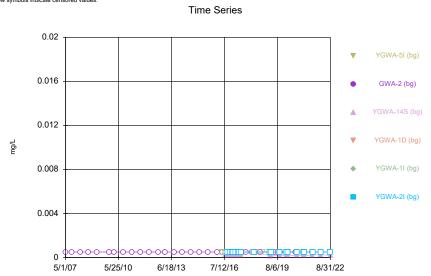


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Plant Yates Client: Southern Company Data: Yates Ash Pond1



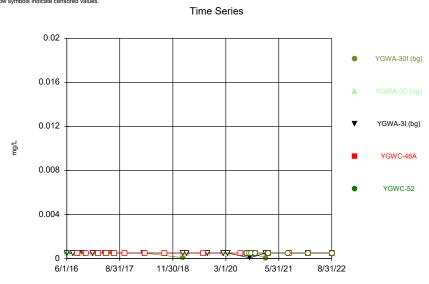
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



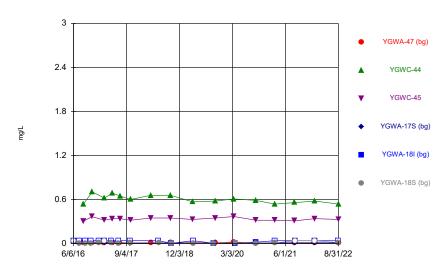
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.

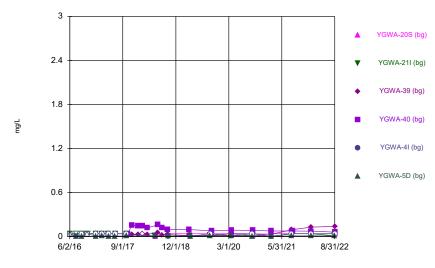


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Plant Yates Client: Southern Company Data: Yates Ash Pond1



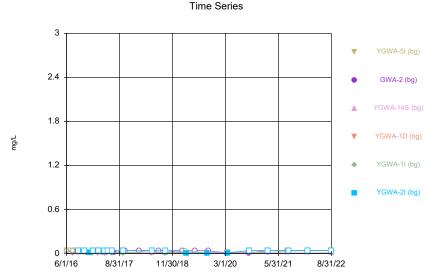


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Plant Yates Client: Southern Company Data: Yates Ash Pond1



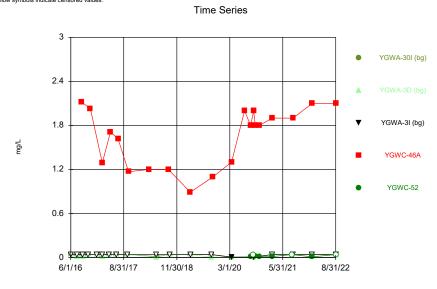
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



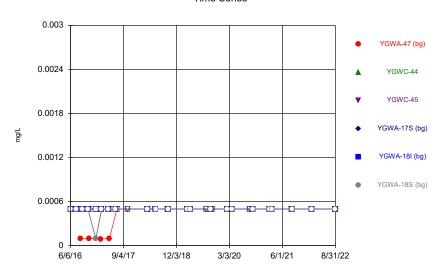
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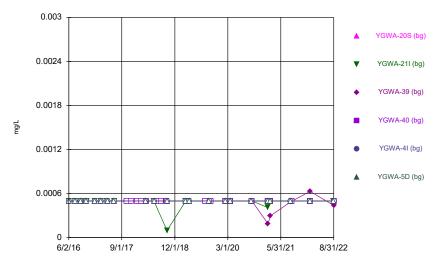


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Plant Yates Client: Southern Company Data: Yates Ash Pond1



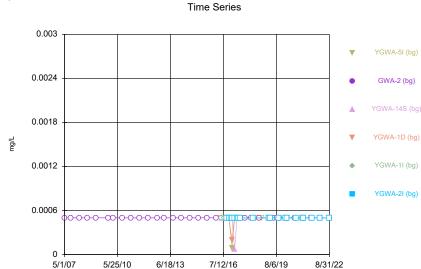


Constituent: Cadmium Analysis Run 10/6/2022 4:37 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Cadmium Analysis Run 10/6/2022 4:37 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

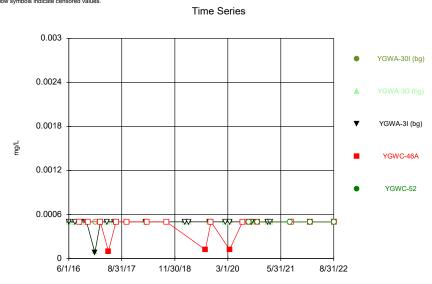
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



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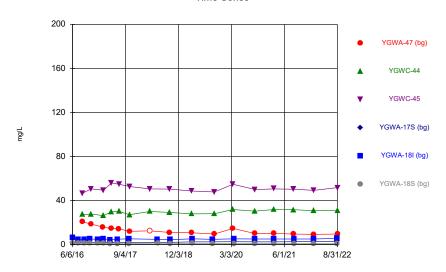
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



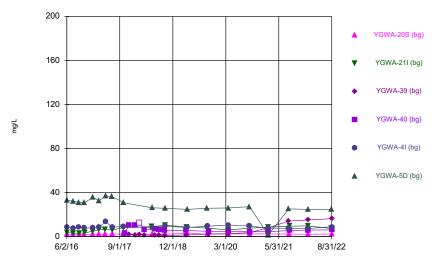
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Plant Yates Client: Southern Company Data: Yates Ash Pond1





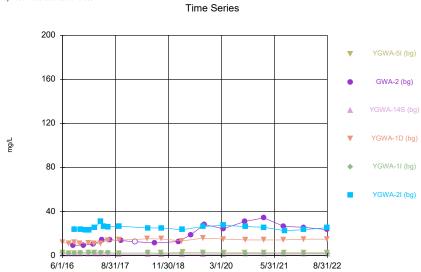
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



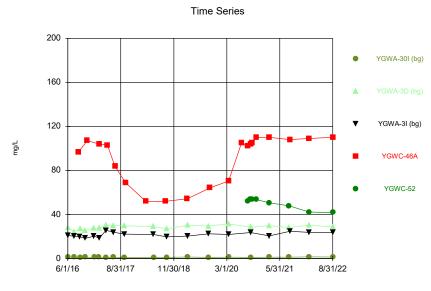
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



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Plant Yates Client: Southern Company Data: Yates Ash Pond1

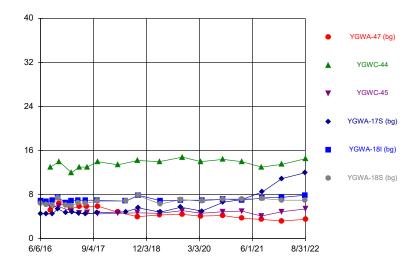
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG



Constituent: Calcium, total Analysis Run 10/6/2022 4:38 PM
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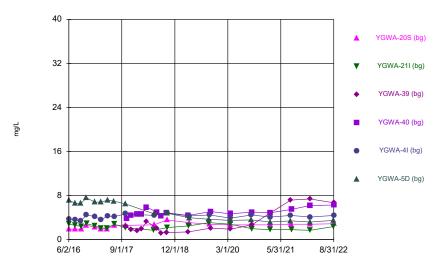
mg/L

Time Series



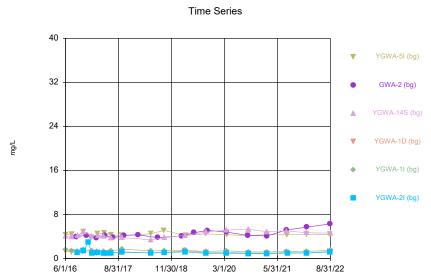
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



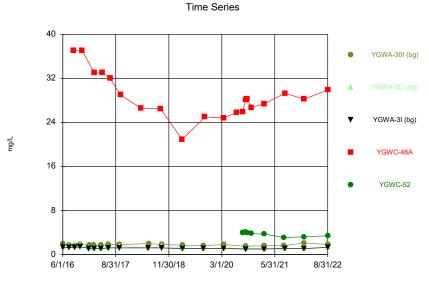
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Sanitas[™] v.9.6.35 Groundwater Stats Consulting. UG



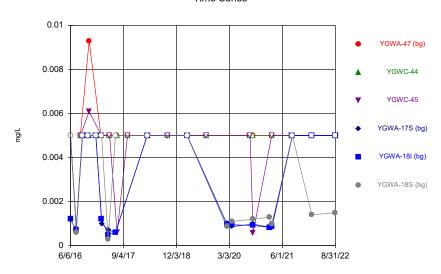
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

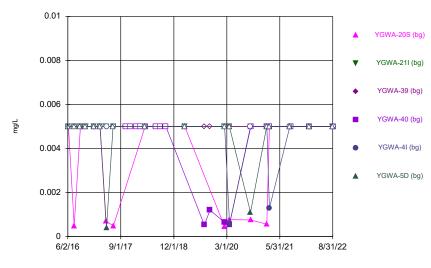


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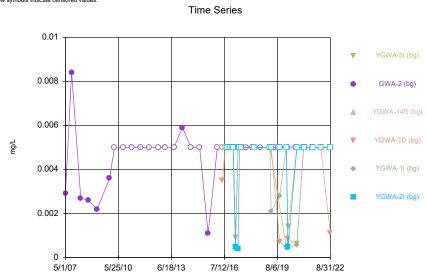


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Plant Yates Client: Southern Company Data: Yates Ash Pond1



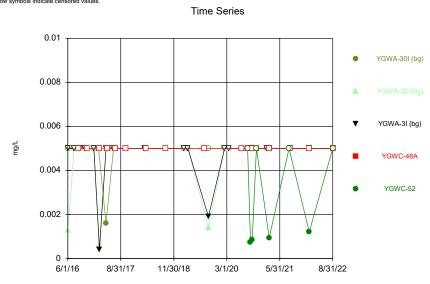
Constituent: Chromium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



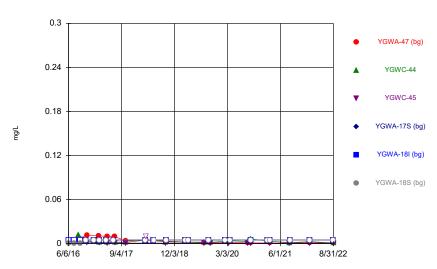
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



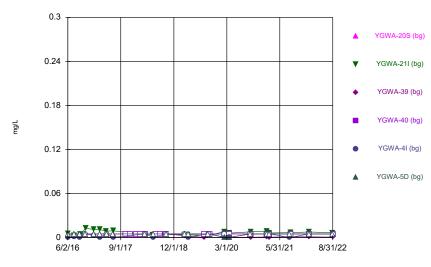
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Plant Yates Client: Southern Company Data: Yates Ash Pond1





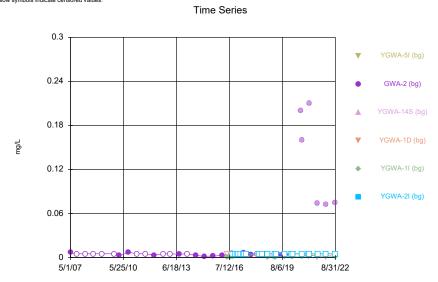
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



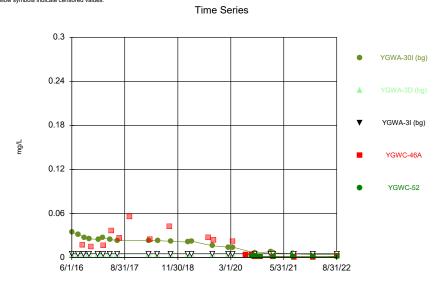
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

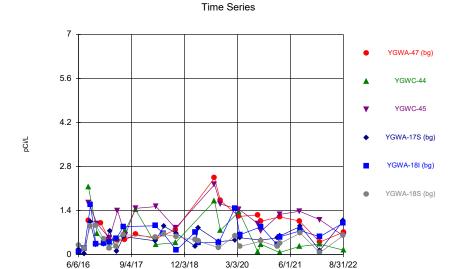
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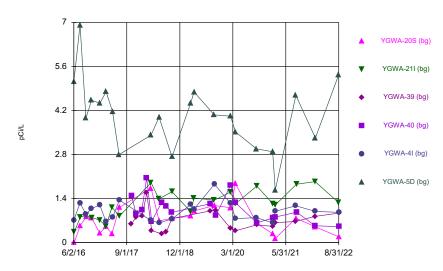
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



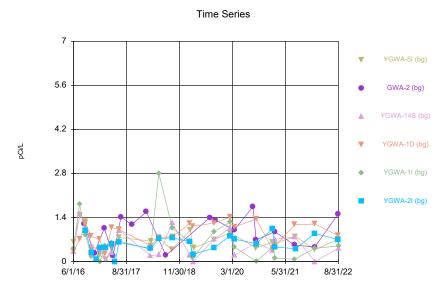


Constituent: Combined Radium 226 + 228 Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1



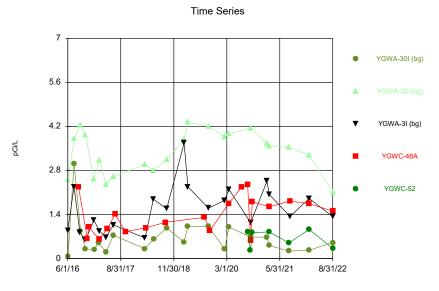
Constituent: Combined Radium 226 + 228 Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG



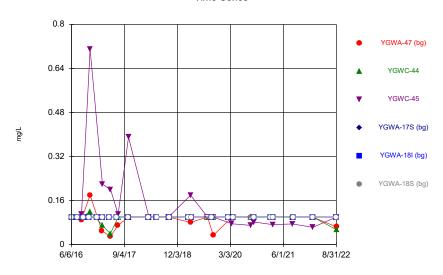
Constituent: Combined Radium 226 + 228 Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG



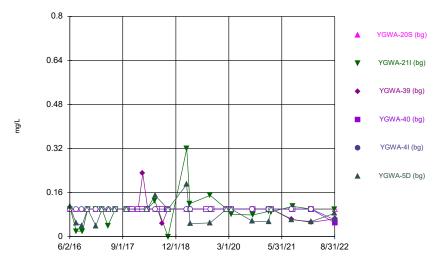
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Plant Yates Client: Southern Company Data: Yates Ash Pond1





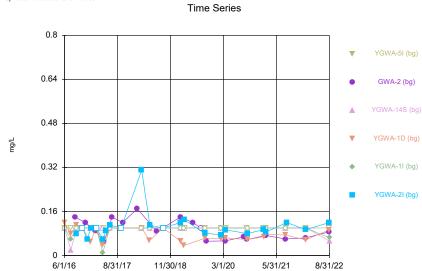
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



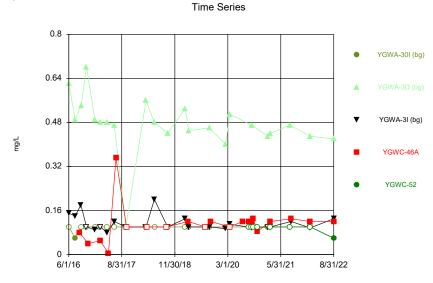
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



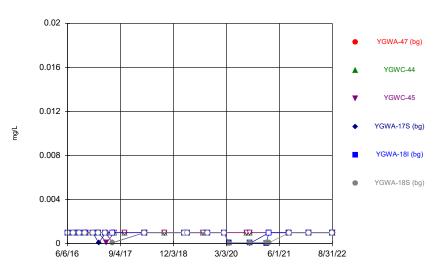
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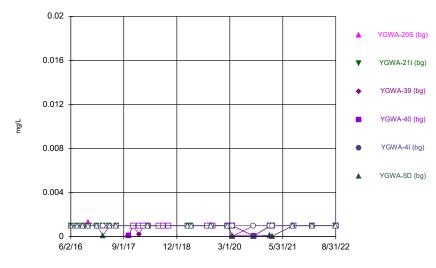


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Plant Yates Client: Southern Company Data: Yates Ash Pond1



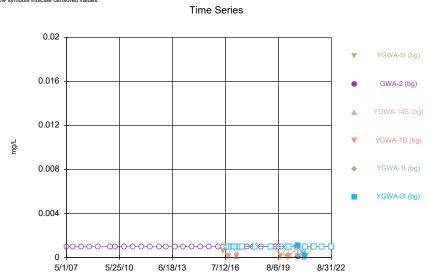


Constituent: Lead Analysis Run 10/6/2022 4:38 PM
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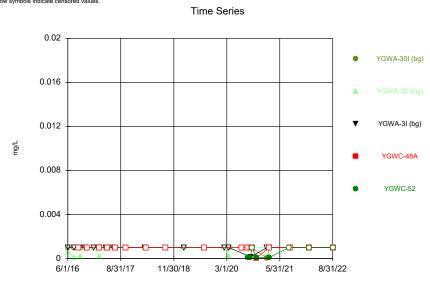
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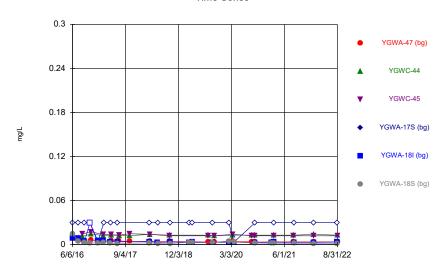
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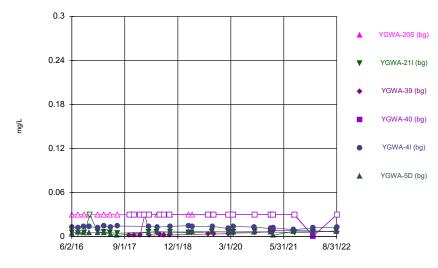
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Plant Yates Client: Southern Company Data: Yates Ash Pond1





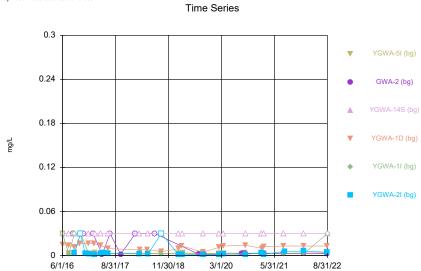
Constituent: Lithium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



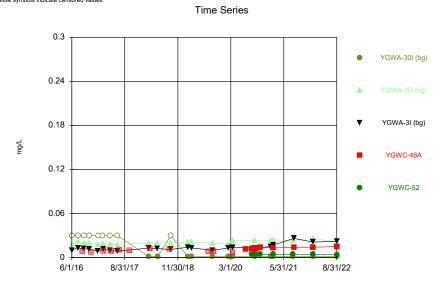
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.

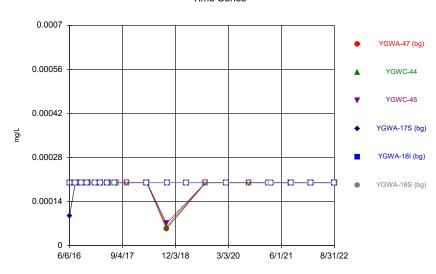


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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.

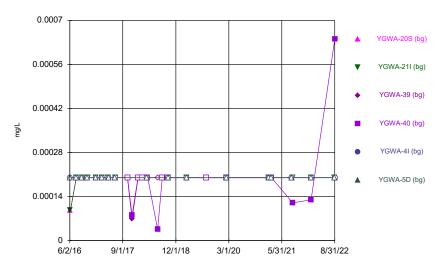






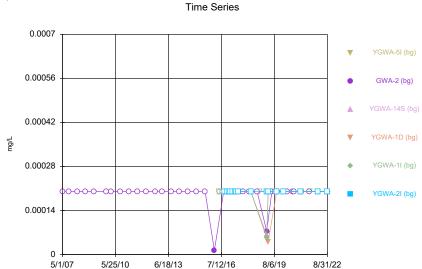
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



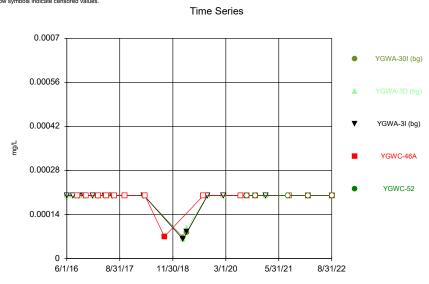
Constituent: Mercury Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.

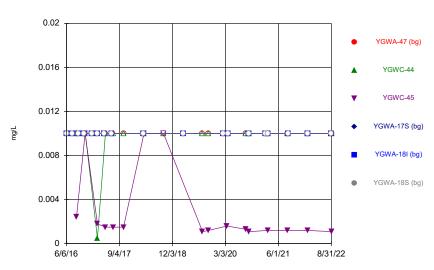


Constituent: Mercury Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.

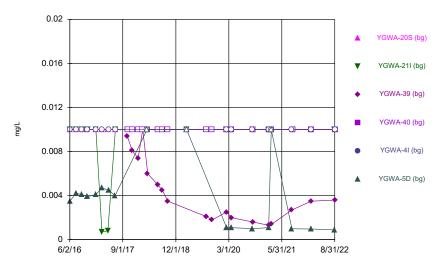






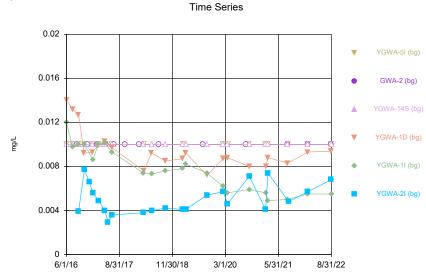
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



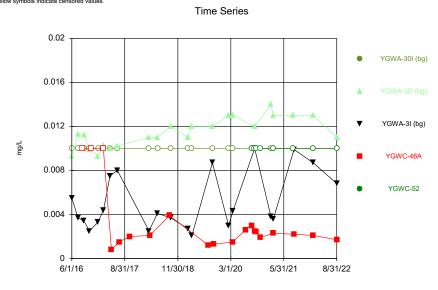
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.

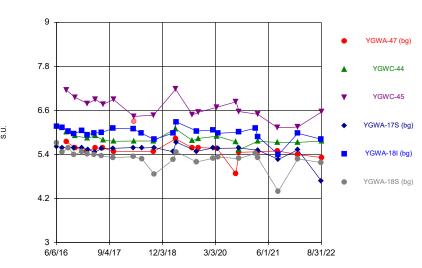


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Plant Yates Client: Southern Company Data: Yates Ash Pond1

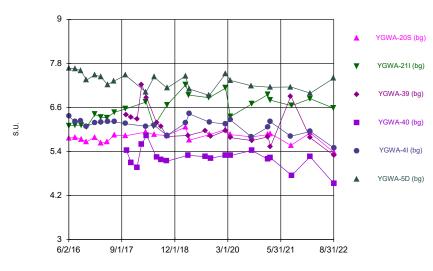
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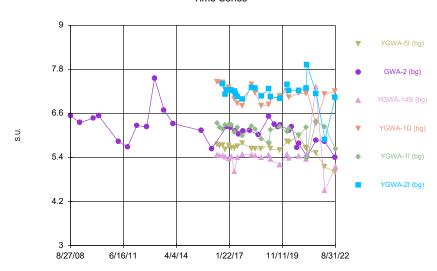
Constituent: pH, Field Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: pH, Field Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

$Sanitas^{\text{\tiny{TM}}} \ v.9.6.35 \ Groundwater \ Stats \ Consulting. \ UG$

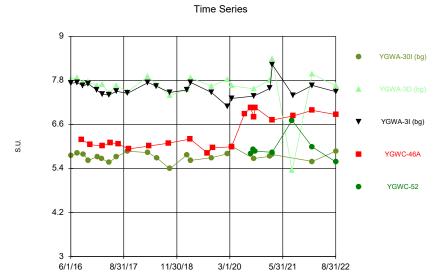
Time Series



Constituent: pH, Field Analysis Run 10/6/2022 4:38 PM

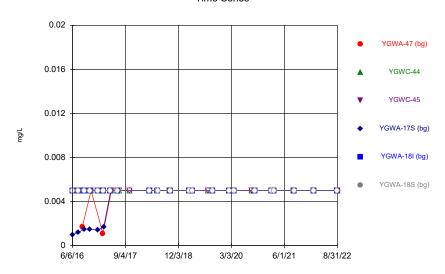
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

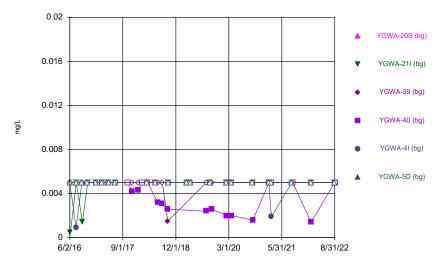


Constituent: pH, Field Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1



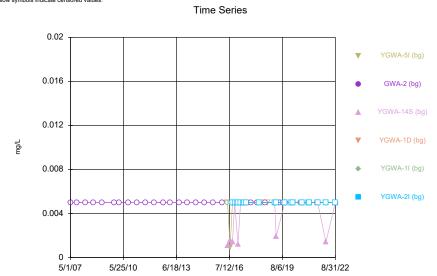


Constituent: Selenium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1



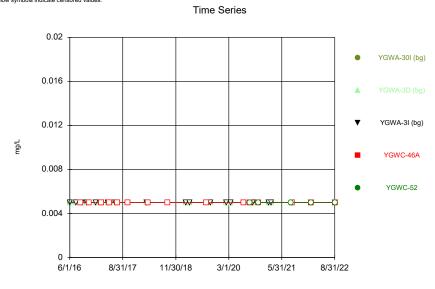
Constituent: Selenium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



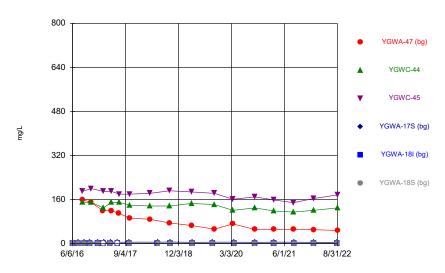
Constituent: Selenium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



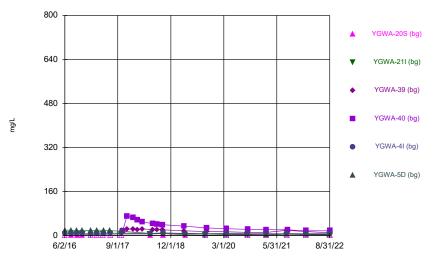
Constituent: Selenium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1





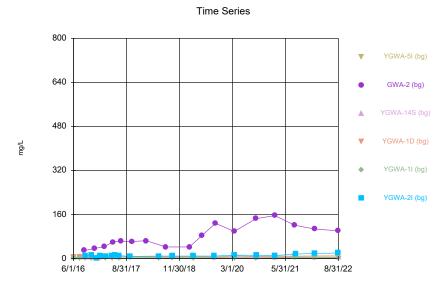
Constituent: Sulfate as SO4 Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



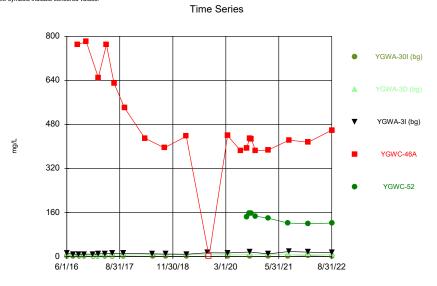
Constituent: Sulfate as SO4 Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas[™] v.9.6.35 Groundwater Stats Consulting. UG



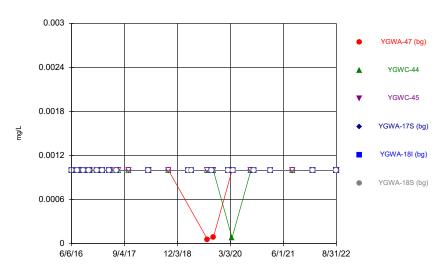
Constituent: Sulfate as SO4 Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



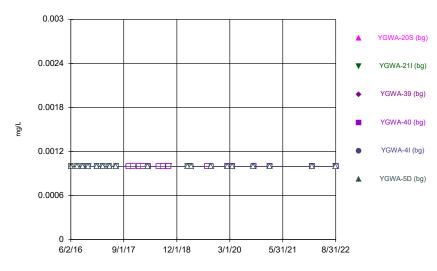
Constituent: Sulfate as SO4 Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1





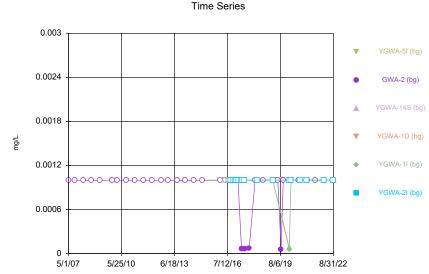
Constituent: Thallium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series



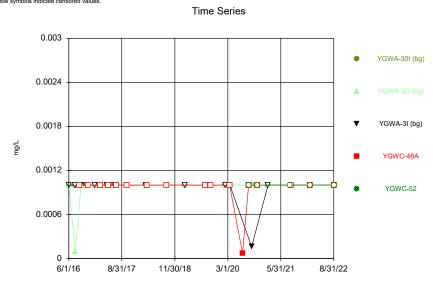
Constituent: Thallium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.

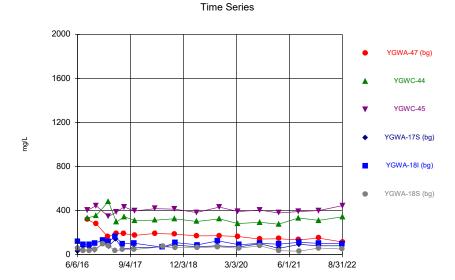


Constituent: Thallium Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

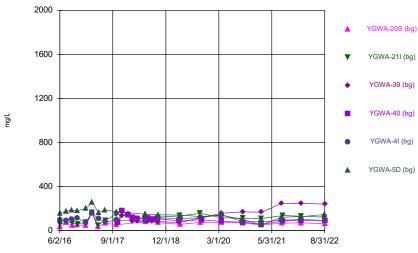


Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series 2000 YGWA-5I (bg) 1600 GWA-2 (bg) 1200 YGWA-1D (bg) mg/L 800 YGWA-1I (bg) YGWA-2I (bg) 400 6/1/16 11/30/18 3/1/20 5/31/21 8/31/22

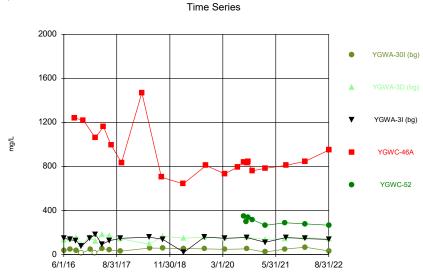
Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1





Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:38 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:39 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

6/6/2016	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg) <0.003	YGWA-18S (bg) <0.003
6/7/2016				<0.003	0.000	0.000
7/27/2016				<0.003	0.0005 (J)	<0.003
8/30/2016	0.0028 (J)				(0)	
8/31/2016	0.0020 (0)	<0.003	<0.003			
9/16/2016		0.000	0.000	<0.003		<0.003
9/19/2016				0.000	<0.003	0.000
11/3/2016				<0.003	<0.003	<0.003
11/14/2016	<0.003		<0.003	-0.000	-0.000	10.000
11/15/2016	10.003	<0.003	-0.003			
1/11/2017		-0.000		<0.003	<0.003	<0.003
2/24/2017	<0.003			-0.000	-0.000	10.000
2/27/2017	-0.000		<0.003			
2/28/2017		<0.003	-0.000			
3/1/2017		10.003			<0.003	<0.003
3/2/2017				<0.003	10.000	10.000
4/26/2017				~0.003	<0.003	<0.003
5/2/2017				<0.003	~ 0.003	~0.003
	0.0004 (1)	<0.003		<0.003		
5/8/2017 5/9/2017	0.0004 (J)	<0.003	<0.003			
			<0.003		<0.003	<0.003
6/28/2017				<0.003	<0.003	<0.003
6/29/2017	0.0006 (1)			\0.003		
7/11/2017	0.0006 (J)	<0.003	<0.003			
7/13/2017	<0.002	<0.003	<0.003			
10/10/2017	<0.003	<0.003	<0.003	<0.002	<0.002	<0.002
3/28/2018 4/2/2018	<0.003			<0.003	<0.003	<0.003
	<0.003		<0.003			
4/3/2018		<0.003	<0.003			
4/4/2018	<0.002	<0.003	<0.002			
9/19/2018	<0.003	<0.003	<0.003	<0.003		<0.003
3/5/2019 3/6/2019				<0.003	<0.003	<0.003
4/2/2019				<0.003	<0.003	
4/3/2019				<0.003	<0.003	<0.003
8/20/2019	<0.003	<0.003	<0.003		<0.003	<0.003
9/25/2019	~ 0.003	~ 0.003	~ 0.003	<0.003		
9/26/2019				10.003	0.00056 (J)	<0.003
2/11/2020				<0.003	<0.003	<0.003
3/24/2020				<0.003	<0.003	<0.003
8/27/2020	0.00048 (1)	<0.003		<0.003	<0.003	<0.003
	0.00048 (J)	<0.003	0.0017 (1)			
8/28/2020 9/22/2020	<0.003	<0.003	0.0017 (J)			
9/23/2020	~0.003	~0.003	<0.003	<0.003	<0.003	<0.003
			<0.003	<0.003		
2/9/2021	0.00048 (1)	<0.003	<0.003		<0.003	<0.003
3/1/2021	0.00048 (J)	<0.003	<0.003	<0.003	<0.003	0.00067 (1)
3/3/2021	<0.003	<0.003	<0.003	<0.003	<0.003	0.00067 (J)
8/19/2021	<0.003	<0.003	<0.003			<0.002
8/26/2021				<0.003	<0.003	<0.003
8/27/2021	<0.003			~0.003	-0.003	
2/8/2022	~0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2/9/2022		<0.003	<0.003	<0.003	<0.003	<0.003
8/30/2022				<0.003	<0.003	<0.003

Page 2

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/6/2022 4:40 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

YGWA-47 (bg) YGWC-44 YGWC-45 YGWA-17S (bg) YGWA-18I (bg) YGWA-18S (bg) 8/31/2022 <0.003 <0.003

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.003	<0.003
6/7/2016	<0.003	<0.003				
7/26/2016					0.0003 (J)	<0.003
7/27/2016	<0.003					
7/28/2016		<0.003				
9/14/2016					<0.003	<0.003
9/19/2016	<0.003	0.001 (J)				
11/2/2016	<0.003				<0.003	<0.003
11/3/2016		<0.003				
1/12/2017						<0.003
1/13/2017	<0.003	<0.003			<0.003	
3/6/2017	<0.003	0.0005 (J)			<0.003	
3/7/2017						<0.003
4/26/2017	<0.003	<0.003				
5/1/2017					<0.003	<0.003
6/27/2017						<0.003
6/29/2017	<0.003	<0.003			<0.003	
10/11/2017			0.0006 (J)			
10/12/2017				<0.003		
11/20/2017			<0.003	<0.003		
1/10/2018				<0.003		
1/11/2018			<0.003			
2/19/2018				<0.003		
2/20/2018			<0.003			
3/29/2018	<0.003	<0.003			<0.003	<0.003
4/3/2018			<0.003	<0.003		
6/28/2018			<0.003	<0.003		
8/7/2018			<0.003	<0.003		
9/24/2018			<0.003	<0.003		
3/4/2019					<0.003	<0.003
3/5/2019	<0.003	0.0011 (J)				
4/2/2019		0.0011 (J)				
4/3/2019	<0.003				<0.003	<0.003
8/21/2019			<0.003	<0.003		
9/24/2019		0.0035				<0.003
9/25/2019	<0.003				<0.003	
2/12/2020	<0.003	0.0015 (J)	<0.003	<0.003	<0.003	<0.003
3/24/2020	<0.003	0.0017 (J)		<0.003		<0.003
3/25/2020		(0)	0.0014 (J)		<0.003	
9/22/2020					<0.003	<0.003
9/24/2020	<0.003	0.0047	<0.003	<0.003	0.000	0.000
2/8/2021	-0.000	0.0047	-0.000	-0.000		<0.003
2/9/2021	0.00032 (J)	0.0013 (J)			<0.003	10.000
2/10/2021	0.00032 (3)	0.0013 (0)	<0.003	<0.003	10.003	
3/2/2021			~ 0.003	~ 0.003		<0.003
3/3/2021	<0.003				<0.003	10.003
3/4/2021	-0.000	0.0014 (J)	<0.003	<0.003	50.003	
		0.0014 (J)	<0.003	~U.UU3	<0.003	<0.003
8/26/2021	<0.003		~U.UU3		<0.003	~U.UU3
8/27/2021	~ 0.003	<0.003				
9/1/2021		<0.003		-0.003		
9/3/2021			-0.002	<0.003		
2/8/2022			<0.003	<0.003		

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
2/9/2022	<0.003	<0.003				
2/10/2022						<0.003
2/11/2022					<0.003	
8/30/2022		0.0046				<0.003
8/31/2022	<0.003		<0.003	<0.003	<0.003	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.003				
9/11/2007		<0.003				
3/20/2008		<0.003				
8/27/2008		<0.003				
3/3/2009		<0.003				
11/18/2009		<0.003				
3/3/2010		<0.003				
9/8/2010		<0.003				
3/10/2011		<0.003				
9/8/2011		<0.003				
3/5/2012		<0.003				
9/10/2012		<0.003				
2/6/2013		<0.003				
8/12/2013		<0.003				
2/5/2014		<0.003				
8/5/2014		<0.003				
2/4/2015		<0.003				
8/3/2015		<0.003				
2/16/2016		<0.003				
6/1/2016				<0.003	<0.003	
6/2/2016	<0.003		<0.003			
7/25/2016					<0.003	
7/26/2016	<0.003		0.0005 (J)	0.001 (J)		
8/31/2016		<0.003				
9/13/2016				0.001 (J)	<0.003	
9/14/2016	<0.003					<0.003
9/15/2016			<0.003			
11/1/2016				0.0015 (J)		
11/2/2016			<0.003			
11/4/2016	<0.003				<0.003	<0.003
11/28/2016		0.0014 (J)				
12/15/2016						0.0012 (J)
1/10/2017			<0.003			
1/11/2017				<0.003		
1/12/2017	<0.003					
1/16/2017					<0.003	<0.003
2/22/2017		<0.003				
3/2/2017				0.0004 (J)	<0.003	
3/3/2017						<0.003
3/7/2017	<0.003					
3/8/2017			<0.003			
4/26/2017			<0.003			
4/27/2017				0.0004 (J)	0.0017 (J)	
4/28/2017				. ,	.,	0.0015 (J)
5/2/2017	<0.003					• •
5/8/2017		<0.003				
5/26/2017						0.0005 (J)
6/27/2017	<0.003			<0.003	<0.003	
6/28/2017	2.200					<0.003
6/30/2017			<0.003			
7/17/2017		<0.003	-0.000			
10/16/2017		<0.003				
10/10/2017		-0.003				

·	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.003				
3/27/2018			<0.003		<0.003	
3/28/2018						<0.003
3/29/2018	<0.003			<0.003		
8/6/2018		<0.003				
2/25/2019		<0.003				
2/26/2019			<0.003			
2/27/2019				<0.003	<0.003	<0.003
3/4/2019	<0.003					
4/3/2019	<0.003					
6/12/2019		<0.003				
8/19/2019		<0.003				
9/24/2019	<0.003					
10/8/2019		<0.003				
2/10/2020				0.00088 (J)	<0.003	
2/11/2020						0.00036 (J)
2/12/2020	<0.003		<0.003			
3/17/2020		<0.003				
3/18/2020			<0.003		0.0004 (J)	
3/19/2020				<0.003		0.0003 (J)
3/24/2020	<0.003					
8/26/2020		0.00042 (J)				
9/22/2020	<0.003	0.00044 (J)				
9/23/2020				<0.003	<0.003	<0.003
9/25/2020			<0.003			
2/8/2021	<0.003					
2/10/2021			<0.003			0.0013 (J)
2/12/2021				<0.003	<0.003	
3/2/2021	<0.003	<0.003	<0.003			
3/3/2021				<0.003	<0.003	<0.003
8/19/2021			<0.003	<0.003	<0.003	
8/20/2021		<0.003				
8/26/2021	<0.003					
8/27/2021						<0.003
2/8/2022		<0.003				
2/9/2022				<0.003	<0.003	<0.003
2/10/2022	<0.003		<0.003			
8/30/2022	<0.003	<0.003		<0.003		<0.003
8/31/2022			<0.003		<0.003	

					,	
<u> </u>	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52	
6/1/2016	(-9/	- (-3)	<0.003			
6/2/2016	<0.003	<0.003				
7/25/2016	<0.003	0.000	<0.003			
	~ 0.003	0.000 (1)	~ 0.003			
7/26/2016		0.002 (J)				
9/1/2016				<0.003		
9/14/2016			<0.003			
9/15/2016		0.0027 (J)				
9/19/2016	<0.003					
11/1/2016	<0.003	<0.003	<0.003			
11/16/2016				<0.003		
1/11/2017		<0.003	<0.003			
1/16/2017	<0.003	0.000	5.555			
2/21/2017	<0.003					
2/27/2017				<0.003		
3/1/2017			<0.003			
3/2/2017		0.0008 (J)				
4/26/2017	<0.003	<0.003	<0.003			
5/8/2017				< 0.003		
6/28/2017		<0.003	<0.003			
6/30/2017	<0.003					
7/13/2017	-			<0.003		
10/11/2017				<0.003		
	<0.000			~ 0.003		
3/27/2018	<0.003					
3/28/2018		<0.003	<0.003			
4/4/2018				<0.003		
9/19/2018				<0.003		
2/26/2019	<0.003					
2/27/2019		<0.003	<0.003			
8/21/2019				<0.003		
2/11/2020			<0.003			
2/11/2020	<0.003	<0.003	5.555			
			<0.003			
3/19/2020	<0.003	0.00064 (J)	<0.003	.0.000		
7/6/2020				<0.003		
8/27/2020					<0.003	
8/28/2020				0.00029 (J)		
9/22/2020					<0.003	
9/23/2020		<0.003	<0.003	< 0.003		
9/24/2020	<0.003					
10/7/2020				<0.003	<0.003	
11/12/2020				<0.003	<0.003	
		<0.000	-0.000	~ 0.003	~U.UU3	
2/10/2021	.0.005	<0.003	<0.003			
2/11/2021	<0.003					
3/1/2021	<0.003				<0.003	
3/2/2021				<0.003		
3/3/2021		<0.003	<0.003			
8/19/2021	<0.003	<0.003				
8/20/2021					<0.003	
8/27/2021			<0.003	<0.003		
2/9/2022		0.0018 (J)	<0.003	<0.003	<0.003	
	<0.002	0.0010 (3)	~0.003	~ 0.003	~U.UU3	
2/11/2022	<0.003					
8/31/2022	<0.003	<0.003	<0.003	<0.003	<0.003	

6/6/2016	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg) <0.005	YGWA-18S (bg) <0.005
6/7/2016				<0.005		
7/27/2016				<0.005	<0.005	<0.005
8/30/2016	<0.005					
8/31/2016		<0.005	<0.005			
9/16/2016				<0.005		<0.005
9/19/2016					<0.005	
11/3/2016				<0.005	<0.005	<0.005
11/14/2016	<0.005		<0.005			
11/15/2016		<0.005				
1/11/2017				<0.005	<0.005	<0.005
2/24/2017	<0.005					
2/27/2017			<0.005			
2/28/2017		0.0005 (J)				
3/1/2017		(0)			<0.005	<0.005
3/2/2017				<0.005		
4/26/2017				-0.000	<0.005	<0.005
5/2/2017				<0.005	0.000	0.000
5/8/2017	<0.005	0.0006 (J)		-0.000		
5/9/2017	10.000	0.0000 (0)	<0.005			
6/28/2017			-0.000		<0.005	<0.005
6/29/2017				<0.005	10.000	10.003
7/11/2017	<0.005			10.005		
7/13/2017	10.003	<0.005	<0.005			
10/10/2017	0.0007 (J)	0.0007 (J)	0.0006 (J)			
3/28/2018	0.0007 (3)	0.0007 (0)	0.0000 (3)	<0.005	<0.005	0.00061 (J)
4/2/2018	<0.005			10.005	10.000	0.00001 (3)
4/3/2018	10.000		0.00061 (J)			
4/4/2018		<0.005	0.00001 (3)			
6/7/2018		10.000			0.00066 (J)	
6/11/2018				<0.005	0.00000 (3)	<0.005
9/19/2018	0.00072 (J)	0.00086 (J)	0.00072 (J)	-0.000		-0.000
9/25/2018	0.00072 (0)	0.00000 (0)	0.00072 (0)	<0.005	<0.005	<0.005
3/5/2019				<0.005	-0.000	<0.005
3/6/2019				-0.000	<0.005	-0.000
4/2/2019				<0.005	0.000	
4/3/2019				0.000	<0.005	<0.005
8/20/2019	<0.005	0.00097 (J)	0.00078 (J)		0.000	0.000
9/25/2019	0.000	0.00007 (0)	0.00070 (0)	<0.005		
9/26/2019				0.000	<0.005	<0.005
10/8/2019	<0.005	<0.005			-0.000	-0.000
10/9/2019	10.000	10.000	<0.005			
2/11/2020			10.000	0.0022 (J)	0.0014 (J)	0.0026 (J)
3/17/2020	<0.005	<0.005	<0.005	0.0022 (0)	0.0014 (0)	0.0020 (0)
3/24/2020	10.003	10.000	10.000	<0.005	<0.005	<0.005
8/27/2020	<0.005	<0.005		-0.000	-0.000	-0.000
8/28/2020	-0.000	-0.000	<0.005			
9/22/2020	<0.005	<0.005	-0.003			
9/23/2020	~U.UUJ	~0.003	<0.005	<0.005	<0.005	<0.005
2/9/2021			~ 0.003	~0.003	<0.005	<0.005
3/1/2021	<0.005	<0.005	<0.005		-0.000	×0.003
3/3/2021	~U.UUJ	~0.003	~ 0.003	<0.005	<0.005	<0.005
3/3/202 I				·0.000	-0.000	·0.003

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/19/2021	<0.005	<0.005	<0.005			
8/26/2021						<0.005
8/27/2021				<0.005	<0.005	
2/8/2022	0.0027 (J)					
2/9/2022		<0.005	<0.005	0.0024 (J)	0.0022 (J)	0.0024 (J)
8/30/2022				<0.005	<0.005	<0.005
8/31/2022	<0.005	<0.005	<0.005			

		YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6	/2/2016					<0.005	0.00071 (J)
6	/7/2016	<0.005	<0.005				
7	/26/2016					<0.005	0.001 (J)
7	/27/2016	<0.005					
7	/28/2016		<0.005				
9	/14/2016					<0.005	<0.005
9	/19/2016	<0.005	<0.005				
1	1/2/2016	<0.005				<0.005	<0.005
1	1/3/2016		<0.005				
1	/12/2017						<0.005
1	/13/2017	<0.005	<0.005			<0.005	
3	/6/2017	<0.005	0.0017 (J)			<0.005	
3	/7/2017						0.0012 (J)
4	/26/2017	<0.005	<0.005				
5	/1/2017					<0.005	<0.005
6	/27/2017						0.0019 (J)
6	/29/2017	<0.005	<0.005			<0.005	
1	0/11/2017			0.0009 (J)			
1	0/12/2017				<0.005		
1	1/20/2017			<0.005	<0.005		
1	/10/2018				<0.005		
1	/11/2018			<0.005			
	/19/2018				<0.005		
	/20/2018			<0.005			
	/29/2018	<0.005	0.0015 (J)			<0.005	0.0006 (J)
	/3/2018		(0)	<0.005	<0.005		
	/5/2018		0.0013 (J)	0.000	0.000		
	/6/2018	<0.005	0.0010 (0)				0.0013 (J)
	/7/2018	0.000				0.00059 (J)	0.0010 (0)
	/28/2018			<0.005	<0.005	0.00000 (0)	
	/7/2018			<0.005	<0.005		
	/24/2018			<0.005	<0.005		
	/25/2018	<0.005	0.0022 (J)	10.000	-0.000		
	/26/2018	-0.000	0.0022 (0)			<0.005	0.0014 (J)
	/4/2019					<0.005	<0.005
	/5/2019	<0.005	0.0013 (J)			10.003	10.003
	/2/2019	~ 0.003	0.0013 (J) 0.00096 (J)				
	/3/2019	<0.005	0.00090 (3)			<0.005	<0.005
	/21/2019	10.000		0.00058 (J)	<0.005	10.003	10.003
	/24/2019		0.0026 (1)	0.00038 (3)	~0.003		0.00043 (J)
	/25/2019	<0.00E	0.0026 (J)			<0.00E	0.00043 (3)
	0/9/2019	<0.005		0.00063 (1)	<0.00E	<0.005	
		-0.005	0.0005 (1)	0.00063 (J)	<0.005	-0.005	0.0040 (1)
	/12/2020	<0.005	0.0025 (J)	0.00058 (J)	0.0034 (J)	<0.005	0.0046 (J)
	/24/2020	<0.005	0.0013 (J)	0.0010 / 1)	<0.005	-0.005	0.00065 (J)
	/25/2020			0.0012 (J)		<0.005	0.001 (1)
	/22/2020					<0.005	0.001 (J)
	/24/2020	<0.005	0.0014 (J)	<0.005	<0.005		0.005
	/8/2021	.0.005	0.004 (1)			0.005	<0.005
	/9/2021	<0.005	0.001 (J)			<0.005	
	/10/2021			<0.005	<0.005		
	/2/2021						<0.005
3	/3/2021	<0.005				<0.005	

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/4/2021		0.00078 (J)	<0.005	<0.005		
8/26/2021			<0.005		<0.005	0.0016 (J)
8/27/2021	<0.005					
9/1/2021		<0.005				
9/3/2021				<0.005		
2/8/2022			0.0034 (J)	0.003 (J)		
2/9/2022	0.0021 (J)	0.0036 (J)				
2/10/2022						0.004 (J)
2/11/2022					0.0014 (J)	
8/30/2022		0.0022 (J)				0.0031 (J)
8/31/2022	<0.005		0.0029 (J)	<0.005	<0.005	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007	- (-3)	<0.005	- (-3)	(-3)	(-3/	. 3,
9/11/2007		<0.005				
3/20/2008		<0.005				
8/27/2008		<0.005				
3/3/2009		<0.005				
11/18/2009		<0.005				
3/3/2010		<0.005				
9/8/2010		<0.005				
3/10/2011		<0.005				
9/8/2011		<0.005				
3/5/2012		<0.005				
9/10/2012		<0.005				
2/6/2013		<0.005				
8/12/2013		<0.005				
2/5/2014		<0.005				
8/5/2014		<0.005				
2/4/2015		<0.005				
8/3/2015		<0.005				
2/16/2016		<0.005				
6/1/2016				0.0021	<0.005	
6/2/2016	<0.005		<0.005			
7/25/2016					<0.005	
7/26/2016	<0.005		<0.005	0.0016 (J)		
8/31/2016		<0.005				
9/13/2016				<0.005	<0.005	
9/14/2016	<0.005					<0.005
9/15/2016			<0.005			
11/1/2016				<0.005		
11/2/2016			<0.005			
11/4/2016	<0.005				<0.005	0.0017 (J)
11/28/2016		<0.005				(4)
12/15/2016		0.000				0.0023 (J)
1/10/2017			<0.005			0.0020 (0)
			~ 0.003	0.0017 (1)		
1/11/2017 1/12/2017	<0.005			0.0017 (J)		
	<0.005				<0.00E	0.0010 (1)
1/16/2017		.0.005			<0.005	0.0018 (J)
2/22/2017		<0.005		0.004475	-0.005	
3/2/2017				0.0014 (J)	<0.005	0.0040 (1)
3/3/2017						0.0016 (J)
3/7/2017	<0.005					
3/8/2017			<0.005			
4/26/2017			<0.005			
4/27/2017				0.0018 (J)	<0.005	
4/28/2017						0.002 (J)
5/2/2017	<0.005					
5/8/2017		<0.005				
5/26/2017						0.0005 (J)
6/27/2017	<0.005			0.0018 (J)	<0.005	
6/28/2017						0.0016 (J)
0/20/2017						
			<0.005			
6/30/2017 7/17/2017		<0.005	<0.005			

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.005				
3/27/2018			<0.005		<0.005	
3/28/2018						0.0013 (J)
3/29/2018	<0.005			0.0017 (J)		
6/5/2018				0.0013 (J)		
6/6/2018					<0.005	
6/7/2018	<0.005					0.00082 (J)
6/8/2018			<0.005			
8/6/2018		<0.005				
9/26/2018	<0.005					
10/1/2018			<0.005	0.0016 (J)	<0.005	0.0011 (J)
2/25/2019		<0.005	-0.005			
2/26/2019			<0.005	0.0045 (1)	.0.005	0.004 (1)
2/27/2019	-0.005			0.0015 (J)	<0.005	0.001 (J)
3/4/2019	<0.005			0.00070 (1)	-0.005	
3/28/2019			-0.005	0.00072 (J)	<0.005	0.00002 (1)
3/29/2019	-0.005		<0.005			0.00063 (J)
4/3/2019	<0.005	0.00000 (1)				
6/12/2019		0.00038 (J)				
8/19/2019 9/24/2019	<0.005	0.00095 (J)		0.001471)	<0.005	<0.005
9/25/2019	<0.005		<0.005	0.0014 (J)	<0.005	<0.003
10/8/2019		<0.005	<0.005			
2/10/2020		~0.003		0.0026 (J)	0.0005 (J)	
2/11/2020				0.0020 (0)	0.0003 (3)	0.0044 (J)
2/11/2020	0.002 (J)		<0.005			0.0044 (0)
3/17/2020	0.002 (0)	<0.005	-0.000			
3/18/2020		0.000	<0.005		<0.005	
3/19/2020				0.00095 (J)		0.00066 (J)
3/24/2020	<0.005			(0)		
8/26/2020		<0.005				
9/22/2020	<0.005	<0.005				
9/23/2020				0.0011 (J)	<0.005	0.001 (J)
9/25/2020			<0.005			
2/8/2021	<0.005					
2/10/2021			<0.005			<0.005
2/12/2021				<0.005	<0.005	
3/2/2021	<0.005	<0.005	<0.005			
3/3/2021				<0.005	<0.005	0.00098 (J)
8/19/2021			<0.005	<0.005	<0.005	
8/20/2021		<0.005				
8/26/2021	<0.005					
8/27/2021						<0.005
2/8/2022		0.0033 (J)				
2/9/2022				0.0031 (J)	0.0033 (J)	0.0037 (J)
2/10/2022	0.0016 (J)		0.0016 (J)			
8/30/2022	<0.005	0.0024 (J)		<0.005		0.0027 (J)
8/31/2022			<0.005		<0.005	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.005		
6/2/2016	<0.005	<0.005			
7/25/2016	<0.005		<0.005		
7/26/2016		<0.005			
9/1/2016				<0.005	
9/14/2016			<0.005		
9/15/2016		<0.005			
9/19/2016	<0.005				
11/1/2016	<0.005	<0.005	<0.005		
11/16/2016				<0.005	
1/11/2017		<0.005	<0.005		
1/16/2017	<0.005				
2/21/2017	<0.005				
2/27/2017				<0.005	
3/1/2017			0.0004 (J)		
3/2/2017		<0.005	(,,		
4/26/2017	<0.005	<0.005	<0.005		
5/8/2017				0.0007 (J)	
6/28/2017		0.0007 (J)	0.0011 (J)	3.000. (0)	
6/30/2017	<0.005	0.0007 (0)	0.0011(0)		
7/13/2017	10.000			0.0011 (J)	
10/11/2017				0.0011 (J)	
	<0.00E			0.0011 (3)	
3/27/2018 3/28/2018	<0.005	<0.005	<0.005		
		<0.005	<0.005	0.00097 (1)	
4/4/2018		-0.005		0.00087 (J)	
6/7/2018		<0.005	-0.005		
6/8/2018	.0.005		<0.005		
6/11/2018	<0.005				
9/19/2018				0.0012 (J)	
10/1/2018		<0.005	<0.005		
10/2/2018	<0.005				
2/26/2019	<0.005				
2/27/2019		<0.005	<0.005		
4/1/2019	<0.005	<0.005	<0.005		
8/21/2019				0.00074 (J)	
9/25/2019	<0.005	<0.005	<0.005		
10/9/2019				<0.005	
2/11/2020			0.0041 (J)		
2/12/2020	0.0032 (J)	0.0038 (J)			
3/17/2020				<0.005	
3/19/2020	<0.005	<0.005	<0.005		
7/6/2020				0.00079 (J)	
8/27/2020					<0.005
8/28/2020				0.0015 (J)	
9/22/2020					<0.005
9/23/2020		<0.005	<0.005	0.00091 (J)	
9/24/2020	<0.005				
10/7/2020				0.001 (J)	<0.005
11/12/2020				0.0014 (J)	<0.005
2/10/2021		0.00094 (J)	0.00078 (J)		
2/11/2021	<0.005				
3/1/2021	<0.005				<0.005

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
3/2/2021				0.0016 (J)	
3/3/2021		<0.005	<0.005		
8/19/2021	<0.005	<0.005			
8/20/2021					<0.005
8/27/2021			<0.005	0.0022 (J)	
2/9/2022		0.002 (J)	0.0018 (J)	<0.005	<0.005
2/11/2022	0.0014 (J)				
8/31/2022	<0.005	0.0028 (J)	<0.005	<0.005	<0.005

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	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					0.028	0.019
6/7/2016				0.012		
7/27/2016				0.0126	0.0294	0.0167
8/30/2016	0.0413					
8/31/2016		0.126	0.0754			
9/16/2016				0.0127		0.0168
9/19/2016					0.0247	
11/3/2016				0.0128	0.0248	0.0159
11/14/2016	0.0383		0.0701			
11/15/2016		0.115				
1/11/2017				0.0142	0.0266	0.0162
2/24/2017	0.0351					
2/27/2017			0.0834			
2/28/2017		0.121				
3/1/2017					0.0275	0.0195
3/2/2017				0.0155		
4/26/2017					0.024	0.0182
5/2/2017				0.0138		
5/8/2017	0.0251	0.125				
5/9/2017	0.0201	0.120	0.0779			
6/28/2017			0.0770		0.0237	0.018
6/29/2017				0.0128	0.0207	0.010
7/11/2017	0.0233			0.0120		
7/11/2017	0.0233	0.106	0.0719			
	0.0207					
10/10/2017	0.0207	0.112	0.0708	0.014	0.024	0.001
3/28/2018	0.022			0.014	0.024	0.021
4/2/2018	0.022		0.000			
4/3/2018		0.10	0.068			
4/4/2018		0.12			0.000	
6/7/2018					0.023	
6/11/2018				0.013		0.019
9/19/2018	0.023	0.11	0.064			
9/25/2018				0.014	0.023	0.019
3/5/2019				0.015		0.02
3/6/2019					0.024	
4/2/2019				0.016		
4/3/2019					0.025	0.017
8/20/2019	0.024	0.1	0.057			
9/25/2019				0.015		
9/26/2019					0.021	0.017
10/8/2019	0.025	0.098				
10/9/2019			0.058			
2/11/2020				0.015	0.022	0.019
3/17/2020	0.035	0.099	0.061			
3/24/2020				0.015	0.021	0.017
8/27/2020	0.027	0.086				
8/28/2020			0.053			
9/22/2020	0.026	0.096				
9/23/2020			0.052	0.015	0.021	0.016
2/9/2021					0.023	0.017
3/1/2021	0.029	0.087	0.055			
3/3/2021				0.017	0.023	0.017

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/19/2021	0.029	0.089	0.055			
8/26/2021						0.015
8/27/2021				0.016	0.02	
2/8/2022	0.03					
2/9/2022		0.083	0.053	0.017	0.021	0.014
8/30/2022				0.017	0.017	0.012
8/31/2022	0.029	0.073	0.052			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016	0.014	0.0050			0.013	0.0084
6/7/2016	0.014	0.0058			0.0450	0.04
7/26/2016					0.0158	0.01
7/27/2016	0.0141					
7/28/2016		0.0068 (J)				
9/14/2016					0.0143	0.0085 (J)
9/19/2016	0.0155	0.0071 (J)				
11/2/2016	0.0157				0.0148	0.0091 (J)
11/3/2016		0.0092 (J)				
1/12/2017						0.0089 (J)
1/13/2017	0.0158	0.0105			0.0146	
3/6/2017	0.0163	0.0105			0.0141	
3/7/2017						0.009 (J)
4/26/2017	0.0177	0.011				
5/1/2017					0.0149	0.0083 (J)
6/27/2017						0.0074 (J)
6/29/2017	0.017	0.0109			0.0154	
10/11/2017			0.0092 (J)			
10/12/2017				0.0328		
11/20/2017			0.0081 (J)	0.0671		
1/10/2018				0.0656		
1/11/2018			0.0077 (J)			
2/19/2018				0.0598		
2/20/2018			<0.01			
3/29/2018	0.014	<0.01			0.014	<0.01
4/3/2018			<0.01	0.045		
6/5/2018		0.011				
6/6/2018	0.015					0.008 (J)
6/7/2018					0.014	
6/28/2018			0.0078 (J)	0.047		
8/7/2018			0.0078 (J)	0.048		
9/24/2018			0.0071 (J)	0.042		
9/25/2018	0.015	0.011				
9/26/2018					0.02	0.0075 (J)
3/4/2019					0.016	0.0077 (J)
3/5/2019	0.016	0.011				
4/2/2019		0.011				
4/3/2019	0.018				0.017	0.0087 (J)
8/21/2019			0.015	0.035		
9/24/2019		0.011				0.0075 (J)
9/25/2019	0.014				0.015	
10/9/2019			0.013	0.036		
2/12/2020	0.014	0.011	0.011	0.035	0.012	0.0079 (J)
3/24/2020	0.015	0.011		0.033		0.0076 (J)
3/25/2020			0.014		0.016	
9/22/2020					0.013	0.0076 (J)
9/24/2020	0.015	0.01	0.016	0.028		
2/8/2021						0.0079 (J)
2/9/2021	0.015	0.011			0.013	
2/10/2021			0.027	0.032		
3/2/2021						0.014
3/3/2021	0.015				0.014	

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/4/2021		0.011	0.028	0.032		
8/26/2021			0.038		0.012	0.0092
8/27/2021	0.013					
9/1/2021		0.0099				
9/3/2021				0.035		
2/8/2022			0.041	0.039		
2/9/2022	0.014	0.011				
2/10/2022						0.0084
2/11/2022					0.013	
8/30/2022		0.0085				0.0079
8/31/2022	0.011		0.035	0.035	0.013	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		0.032				
9/11/2007		0.017				
3/20/2008		0.025				
8/27/2008		0.041				
3/3/2009		0.053				
11/18/2009		0.05				
3/3/2010		0.061				
9/8/2010		0.071				
3/10/2011		0.057				
9/8/2011		0.057				
3/5/2012		0.061				
9/10/2012		0.055				
2/6/2013		0.061				
8/12/2013						
		0.055				
2/5/2014		0.063				
8/5/2014		0.038				
2/4/2015		0.039				
8/3/2015		0.031				
2/16/2016		0.045				
6/1/2016				0.008	0.012	
6/2/2016	0.019		0.0081			
7/25/2016					0.0091 (J)	
7/26/2016	0.0179		0.0082 (J)	0.006 (J)		
8/31/2016		0.0542				
9/13/2016				0.0084 (J)	0.008 (J)	
9/14/2016	0.0181					0.0037 (J)
9/15/2016			0.0087 (J)			
11/1/2016				0.0062 (J)		
11/2/2016			0.0082 (J)			
11/4/2016	0.0165				0.0067 (J)	0.0059 (J)
11/28/2016		0.0529				
12/15/2016						0.0056 (J)
1/10/2017			0.0086 (J)			
1/11/2017				0.0069 (J)		
1/12/2017	0.0199					
1/16/2017					0.0096 (J)	0.0049 (J)
2/22/2017		0.0607				
3/2/2017				0.0071 (J)	0.0112	
3/3/2017						0.0046 (J)
3/7/2017	0.0196					
3/8/2017			0.0088 (J)			
4/26/2017			0.0085 (J)			
4/27/2017				0.0064 (J)	0.0106	
4/28/2017						0.0039 (J)
5/2/2017	0.0202					
5/8/2017		0.065				
5/26/2017						0.0034 (J)
6/27/2017	0.0184			0.0054 (J)	0.0092 (J)	
6/28/2017						0.003 (J)
0.20.20.7						
			0.0081 (J)			
6/30/2017 7/17/2017		0.06	0.0081 (J)			

			T Idill T		icini company De	ad. rates / toll r olid r
	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		0.0533				
3/27/2018			<0.01		<0.01	
3/28/2018						<0.01
3/29/2018	0.021			<0.01		
6/5/2018				0.0069 (J)		
6/6/2018					0.0082 (J)	
6/7/2018	0.019					0.0037 (J)
6/8/2018			0.007 (J)			
8/6/2018		0.044				
9/26/2018	0.019					
10/1/2018			0.007 (J)	0.0062 (J)	0.0084 (J)	0.0038 (J)
2/25/2019		0.045				
2/26/2019			0.0067 (J)			
2/27/2019				0.0074 (J)	0.008 (J)	0.0035 (J)
3/4/2019	0.019					
3/28/2019				0.0082 (J)	0.0082 (J)	
3/29/2019			0.0066 (J)			0.0039 (J)
4/3/2019	0.023					
6/12/2019		0.063				
8/19/2019		0.065				
9/24/2019	0.019			0.0072 (J)	0.0086 (J)	0.0038 (J)
9/25/2019			0.0071 (J)			
10/8/2019		0.058				
2/10/2020				0.0066 (J)	0.0091 (J)	
2/11/2020						0.0036 (J)
2/12/2020	0.021		0.007 (J)			
3/17/2020		0.047				
3/18/2020			0.0076 (J)	0.0070 (1)	0.0084 (J)	0.0000 (1)
3/19/2020	0.004			0.0076 (J)		0.0036 (J)
3/24/2020	0.021	0.044				
8/26/2020	0.010	0.044				
9/22/2020	0.019	0.045		0.0068 (1)	0.0070 (1)	0.0020 (1)
9/23/2020 9/25/2020			0.0073 (1)	0.0068 (J)	0.0079 (J)	0.0039 (J)
	0.02		0.0073 (J)			
2/8/2021 2/10/2021	0.02		0.0079 (1)			0.0022 (1)
2/12/2021			0.0078 (J)	0.0057 (J)	0.009 (J)	0.0032 (J)
3/2/2021	0.019	0.039	0.0076	0.0037 (3)	0.009 (3)	
3/3/2021	0.013	0.000	0.0070	0.0068	0.0094	0.0041 (J)
8/19/2021			0.0077	0.0065	0.0079	0.0041 (0)
8/20/2021		0.036	0.0077	0.0005	0.0075	
8/26/2021	0.019	0.000				
8/27/2021	0.010					0.003 (J)
2/8/2022		0.037				(0)
2/9/2022		0.007		0.0067	0.0088	0.0029 (J)
2/10/2022	0.02		0.0088			· · · · · · · · · · · · · · · · · · ·
8/30/2022	0.017	0.031		0.0066		0.003 (J)
8/31/2022			0.0075		0.0074	V/

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			0.0038		
6/2/2016	0.0064	0.01			
7/25/2016	0.0071 (J)		0.0031 (J)		
7/26/2016		0.0088 (J)			
9/1/2016				0.0414	
9/14/2016			0.0027 (J)		
9/15/2016		0.009 (J)			
9/19/2016	0.0069 (J)				
11/1/2016	0.007 (J)	0.0079 (J)	0.0027 (J)		
11/16/2016				0.0365	
1/11/2017		0.0075 (J)	0.0036 (J)		
1/16/2017	0.0071 (J)				
2/21/2017	0.0077 (J)				
2/27/2017	. ,			0.0326	
3/1/2017			0.0036 (J)		
3/2/2017		0.009 (J)	(-)		
4/26/2017	0.0074 (J)	0.0078 (J)	0.0038 (J)		
5/8/2017			(0)	0.0332	
6/28/2017		0.0071 (J)	0.004 (J)	3.0002	
6/30/2017	0.0076 (J)	3.0071 (0)	3.50+ (0)		
7/13/2017	0.007.0 (0)			0.0365	
10/11/2017				0.0303	
3/27/2018	<0.01			0.0200	
3/28/2018	~0.01	<0.01	<0.01		
4/4/2018		~0.01	~0.01	0.025	
		0.0068 (1)		0.025	
6/7/2018		0.0068 (J)	0.002471		
6/8/2018	0.007 (1)		0.0034 (J)		
6/11/2018	0.007 (J)			0.00	
9/19/2018		0.0005 (1)	0.000470	0.03	
10/1/2018	0.0000 (1)	0.0065 (J)	0.0034 (J)		
10/2/2018	0.0069 (J)				
2/26/2019	0.007 (J)	0.0050 ())	0.000475		
2/27/2019	0.0070 ("	0.0059 (J)	0.0034 (J)		
4/1/2019	0.0072 (J)	0.0064 (J)	0.003 (J)	0.000	
8/21/2019	0.0000 ("	0.0050 ("	0.005 / "	0.023	
9/25/2019	0.0066 (J)	0.0059 (J)	0.005 (J)	0.004	
10/9/2019			0.0004 (1)	0.024	
2/11/2020			0.0031 (J)		
2/12/2020	0.0073 (J)	0.0062 (J)			
3/17/2020				0.022	
3/19/2020	0.0074 (J)	0.0072 (J)	0.0029 (J)		
7/6/2020				0.048	
8/27/2020					0.021
8/28/2020				0.05	
9/22/2020					0.021
9/23/2020		0.0051 (J)	0.0039 (J)	0.045	
9/24/2020	0.0062 (J)				
10/7/2020				0.042	0.019
11/12/2020				0.042	0.019
2/10/2021		0.0059 (J)	0.0029 (J)		
2/11/2021	0.0077 (J)				
3/1/2021	0.007				0.019

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
3/2/2021				0.044	
3/3/2021		0.0064	0.0031 (J)		
8/19/2021	0.0071	0.0052			
8/20/2021					0.019
8/27/2021			0.0039 (J)	0.043	
2/9/2022		0.0051	0.0031 (J)	0.042	0.018
2/11/2022	0.0077				
8/31/2022	0.0068	0.0048 (J)	0.003 (J)	0.036	0.017

6/6/2016	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016 6/7/2016				<0.0005	<0.0005	<0.0005
					<0.000E	<0.000E
7/27/2016	-0.0005			<0.0005	<0.0005	<0.0005
8/30/2016	<0.0005	-0.0005	-0.0005			
8/31/2016		<0.0005	<0.0005	.0.005		
9/16/2016				<0.0005		<0.0005
9/19/2016					<0.0005	
11/3/2016				<0.0005	<0.0005	<0.0005
11/14/2016	<0.0005		<0.0005			
11/15/2016		<0.0005				
1/11/2017				<0.0005	<0.0005	<0.0005
2/24/2017	<0.0005					
2/27/2017			<0.0005			
2/28/2017		<0.0005				
3/1/2017					<0.0005	<0.0005
3/2/2017				8E-05 (J)		
4/26/2017					<0.0005	<0.0005
5/2/2017				<0.0005		
5/8/2017	7E-05 (J)	<0.0005				
5/9/2017			<0.0005			
6/28/2017					<0.0005	<0.0005
6/29/2017				<0.0005		
7/11/2017	<0.0005					
7/13/2017		<0.0005	<0.0005			
10/10/2017	<0.0005	<0.0005	<0.0005			
3/28/2018				<0.0005	<0.0005	<0.0005
4/2/2018	<0.0005					
4/3/2018			<0.0005			
4/4/2018		<0.0005				
6/7/2018					<0.0005	
6/11/2018				9E-05 (J)		5.7E-05 (J)
9/19/2018	5.7E-05 (J)	<0.0005	<0.0005	(-)		(,,
9/25/2018	= (.)			8.9E-05 (J)	<0.0005	8.2E-05 (J)
3/5/2019				9.1E-05 (J)	0.000	7.9E-05 (J)
3/6/2019				0.12 00 (0)	<0.0005	7.02 00 (0)
4/2/2019				9E-05 (J)	0.000	
4/3/2019				0E 00 (0)	<0.0005	7.5E-05 (J)
8/20/2019	<0.0005	<0.0005	<0.0005		10.0000	7.52-05 (5)
9/25/2019	10.0000	10.0003	<0.0005	8.1E-05 (J)		
				6. IE-05 (J)	<0.000E	9.4E.0E.(1)
9/26/2019				7.05.05.(1)	<0.0005	8.4E-05 (J)
2/11/2020				7.8E-05 (J)	<0.0005	7.6E-05 (J)
3/24/2020	4.75.05.40	0.0005		8E-05 (J)	<0.0005	8.9E-05 (J)
8/27/2020	4.7E-05 (J)	<0.0005				
8/28/2020			<0.0005			
9/22/2020	<0.0005	<0.0005	0.005-	0.45.65.40	0.005-	0.05.05.47
9/23/2020			<0.0005	8.1E-05 (J)	<0.0005	8.8E-05 (J)
2/9/2021					<0.0005	9.8E-05 (J)
3/1/2021	5.5E-05 (J)	<0.0005	<0.0005			
3/3/2021				9.9E-05 (J)	<0.0005	0.00011 (J)
8/19/2021	<0.0005	<0.0005	<0.0005			
8/26/2021						9.3E-05 (J)
8/27/2021				0.0001 (J)	<0.0005	

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
2/8/2022	5.6E-05 (J)					
2/9/2022		<0.0005	<0.0005	0.00011 (J)	<0.0005	8.9E-05 (J)
8/30/2022				0.0001 (J)	<0.0005	8.2E-05 (J)
8/31/2022	<0.0005	<0.0005	<0.0005			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.0005	<0.0005
6/7/2016	<0.0005	<0.0005				
7/26/2016					<0.0005	<0.0005
7/27/2016	<0.0005					
7/28/2016		<0.0005				
9/14/2016					<0.0005	<0.0005
9/19/2016	<0.0005	<0.0005				
11/2/2016	<0.0005				<0.0005	<0.0005
11/3/2016		<0.0005				
1/12/2017						<0.0005
1/13/2017	<0.0005	<0.0005			<0.0005	
3/6/2017	<0.0005	<0.0005			<0.0005	
3/7/2017						<0.0005
4/26/2017	<0.0005	<0.0005				
5/1/2017					<0.0005	<0.0005
6/27/2017						<0.0005
6/29/2017	<0.0005	<0.0005			<0.0005	
10/11/2017			<0.0005			
10/12/2017				0.0002 (J)		
11/20/2017			<0.0005	0.0003 (J)		
1/10/2018				0.0003 (J)		
1/11/2018			<0.0005			
2/19/2018				<0.0005		
2/20/2018			<0.0005			
3/29/2018	<0.0005	<0.0005			<0.0005	<0.0005
4/3/2018			<0.0005	<0.0005		
6/5/2018		<0.0005				
6/6/2018	8E-05 (J)					<0.0005
6/7/2018					<0.0005	
6/28/2018			<0.0005	0.00029 (J)		
8/7/2018			<0.0005	0.00024 (J)		
9/24/2018			<0.0005	0.00019 (J)		
9/25/2018	6.1E-05 (J)	<0.0005				
9/26/2018					<0.0005	<0.0005
3/4/2019					<0.0005	<0.0005
3/5/2019	0.00011 (J)	<0.0005				
4/2/2019		<0.0005				
4/3/2019	6.4E-05 (J)				<0.0005	<0.0005
8/21/2019			<0.0005	0.0002 (J)		
9/24/2019		<0.0005		. ,		<0.0005
9/25/2019	<0.0005				<0.0005	
10/9/2019			<0.0005	0.0002 (J)		
2/12/2020	7.8E-05 (J)	<0.0005	<0.0005	0.00018 (J)	<0.0005	<0.0005
3/24/2020	7.6E-05 (J)	<0.0005		0.00022 (J)		<0.0005
3/25/2020			<0.0005	(1)	<0.0005	
9/22/2020					<0.0005	<0.0005
9/24/2020	8.3E-05 (J)	<0.0005	<0.0005	0.0002 (J)	-	-
2/8/2021	(-)	-	-	(-)		<0.0005
2/9/2021	6.8E-05 (J)	<0.0005			<0.0005	
2/10/2021	(-)	-	5.1E-05 (J)	0.00021 (J)	-	
3/2/2021				(0)		<0.0005
3/3/2021	6.8E-05 (J)				<0.0005	0.0000
	(0)					

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/4/2021		<0.0005	<0.0005	0.00021 (J)		
8/26/2021			<0.0005		<0.0005	<0.0005
8/27/2021	5.9E-05 (J)					
9/1/2021		<0.0005				
9/3/2021				0.00024 (J)		
2/8/2022			<0.0005	0.00028 (J)		
2/9/2022	7.7E-05 (J)	<0.0005				
2/10/2022						<0.0005
2/11/2022					<0.0005	
8/30/2022		<0.0005				<0.0005
8/31/2022	<0.0005		<0.0005	0.00025 (J)	<0.0005	

FYIZEADT CAMA-2 (bg) CAMA-14S (bg) YGWA-10 (bg) YGWA-11 (bg)
91112007
3/20/2008
8127/2008
31/3/2009
11/18/2009
3/3/2010
98/2010
3/10/2011
98/2011
315/2012
9/10/2012
206/2013
8/12/2013
25/2014
8/5/2014
244/2015
8/3/2015
2/16/2016 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005 < 0.0005
2/16/2016
6/1/2016
6/2/2016
7/25/2016
7/26/2016 <0.0005
8/31/2016
9/13/2016 < 0.0005 < 0.0005 < 0.0005 < 0.0005
9/14/2016
9/15/2016
11/1/2016
11/2/2016
11/4/2016
11/28/2016
12/15/2016
1/10/2017
1/11/2017
1/12/2017 <0.0005
1/16/2017
2/22/2017 <0.0005
3/2/2017 < 0.0005 < 0.0005 < 0.0005 3/3/2017 < 0.0005 3/8/2017 < 0.0002 (J) 4/26/2017
3/3/2017 <0.0005 3/7/2017 <0.0005 3/8/2017
3/7/2017 <0.0005 3/8/2017
3/8/2017 0.0002 (J) 4/26/2017 0.0002 (J) 4/27/2017 <0.0005 <0.0005 4/28/2017 <0.0005 5/2/2017 <0.0005 5/8/2017 <0.0005 5/26/2017 <0.0005 6/27/2017 <0.0005 <0.0005
4/26/2017 0.0002 (J) 4/27/2017 <0.0005
4/26/2017 0.0002 (J) 4/27/2017 <0.0005
4/27/2017 <0.0005
4/28/2017 <0.0005
5/2/2017 <0.0005
5/8/2017 <0.0005 5/26/2017 <0.0005 <0.0005 6/27/2017 <0.0005 <0.0005
5/26/2017 <0.0005 6/27/2017 <0.0005 <0.0005
6/27/2017 <0.0005 <0.0005
0/20/2017 <0.0005
6/30/2017 0.0002 (J)
7/17/2017 <0.0005
10/16/2017 <0.0005

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.0005				
3/27/2018			<0.0005		<0.0005	
3/28/2018						<0.0005
3/29/2018	<0.0005			<0.0005		
6/7/2018	<0.0005					
8/6/2018		<0.0005				
9/26/2018	<0.0005					
2/25/2019		<0.0005				
2/26/2019			0.00016 (J)			
2/27/2019				<0.0005	<0.0005	<0.0005
3/4/2019	<0.0005					
3/28/2019				<0.0005	<0.0005	
3/29/2019			0.00017 (J)			<0.0005
4/3/2019	<0.0005					
6/12/2019		<0.0005				
8/19/2019		<0.0005				
9/24/2019	<0.0005			<0.0005	<0.0005	<0.0005
9/25/2019			0.00018 (J)			
10/8/2019		<0.0005				
2/10/2020				<0.0005	<0.0005	
2/11/2020						<0.0005
2/12/2020	<0.0005		0.00019 (J)			
3/17/2020		<0.0005				
3/18/2020			0.00021 (J)		<0.0005	
3/19/2020				<0.0005		<0.0005
3/24/2020	<0.0005					
8/26/2020		<0.0005				
9/22/2020	<0.0005	<0.0005				
9/23/2020				<0.0005	<0.0005	<0.0005
9/25/2020			0.00018 (J)			
2/8/2021	<0.0005					
2/10/2021			0.00019 (J)			<0.0005
2/12/2021				<0.0005	<0.0005	
3/2/2021	<0.0005	<0.0005	0.00018 (J)			
3/3/2021				<0.0005	<0.0005	<0.0005
8/19/2021			0.00022 (J)	<0.0005	<0.0005	
8/20/2021		<0.0005				
8/26/2021	<0.0005					
8/27/2021						<0.0005
2/8/2022		<0.0005				
2/9/2022				<0.0005	<0.0005	<0.0005
2/10/2022	<0.0005		0.00025 (J)			
8/30/2022	<0.0005	<0.0005		<0.0005		<0.0005
8/31/2022			0.0002 (J)		<0.0005	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.0005		
6/2/2016	<0.0005	<0.0005			
7/25/2016	<0.0005		<0.0005		
7/26/2016		<0.0005			
9/1/2016				<0.0005	
9/14/2016			<0.0005		
9/15/2016		<0.0005			
9/19/2016	<0.0005	0.0000			
11/1/2016	<0.0005	<0.0005	<0.0005		
11/16/2016	-0.0000	-0.0000	-0.0000	<0.0005	
1/11/2017		<0.0005	<0.0005	-0.0000	
1/16/2017	<0.0005	10.0000	-0.0000		
2/21/2017	<0.0005				
	<0.0003			<0.000E	
2/27/2017			-0.0005	<0.0005	
3/1/2017		-0.0005	<0.0005		
3/2/2017	<0.000E	<0.0005	-0.000		
4/26/2017	<0.0005	<0.0005	<0.0005	.0.005	
5/8/2017				<0.0005	
6/28/2017	.0.055=	<0.0005	<0.0005		
6/30/2017	<0.0005				
7/13/2017				<0.0005	
10/11/2017				<0.0005	
3/27/2018	<0.0005				
3/28/2018		<0.0005	<0.0005		
4/4/2018				<0.0005	
9/19/2018				<0.0005	
2/26/2019	7.2E-05 (J)				
2/27/2019		<0.0005	<0.0005		
4/1/2019	<0.0005	<0.0005	<0.0005		
8/21/2019				<0.0005	
9/25/2019	<0.0005	<0.0005	<0.0005		
2/11/2020			<0.0005		
2/12/2020	<0.0005	<0.0005			
3/19/2020	<0.0005	<0.0005	<0.0005		
7/6/2020				<0.0005	
8/27/2020					<0.0005
8/28/2020				<0.0005	
9/22/2020					<0.0005
9/23/2020		<0.0005	5.9E-05 (J)	<0.0005	
9/24/2020	<0.0005				
10/7/2020				<0.0005	<0.0005
11/12/2020				<0.0005	<0.0005
2/10/2021		<0.0005	<0.0005		
2/11/2021	4.7E-05 (J)				
3/1/2021	<0.0005				<0.0005
3/2/2021				<0.0005	
3/3/2021		<0.0005	<0.0005	0.000	
8/19/2021	<0.0005	<0.0005	-0.0000		
8/20/2021	·0.0003	·0.0000			<0.0005
8/27/2021			<0.0005	<0.0005	-0.0000
01/11/11/1			~0.0000	~ 0.0005	
		<0.0005	<0.0005	<0.0005	-0.000F
2/9/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
8/31/2022	<0.0005	<0.0005	<0.0005	<0.0005	< 0.0005

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.04	<0.04
6/7/2016				<0.04		
7/27/2016				0.008 (J)	<0.04	0.0059 (J)
8/30/2016	0.0166 (J)					
8/31/2016		0.541	0.308			
9/16/2016				0.0086 (J)		0.0079 (J)
9/19/2016					<0.04	
11/3/2016				0.0077 (J)	<0.04	0.0082 (J)
11/14/2016	0.0166 (J)		0.368			
11/15/2016		0.706				
1/11/2017				0.0092 (J)	<0.04	0.0096 (J)
2/24/2017	0.0145 (J)					
2/27/2017			0.321			
2/28/2017		0.623				
3/1/2017					<0.04	<0.04
3/2/2017				0.0095 (J)		
4/26/2017					<0.04	0.0091 (J)
5/2/2017				<0.04		
5/8/2017	0.0141 (J)	0.69				
5/9/2017	. ,		0.338			
6/28/2017					<0.04	0.0079 (J)
6/29/2017				0.0074 (J)		` '
7/11/2017	0.0131 (J)			(-,		
7/13/2017		0.649	0.34			
10/4/2017				0.0077 (J)		0.009 (J)
10/5/2017				0.0077 (0)	<0.04	0.000 (0)
10/10/2017	0.0124 (J)	0.603	0.319		-0.04	
4/2/2018	0.013 (J)	0.000	0.010			
4/3/2018	0.010 (0)		0.35			
4/4/2018		0.66	0.00			
6/7/2018		0.00			<0.04	
6/11/2018				0.01 (J)	-0.04	0.0093 (J)
9/19/2018	0.012 (J)	0.66	0.35	0.01 (0)		0.0033 (3)
	0.012 (3)	0.00	0.55	0.0006 (1)	0.0046 (1)	0.007 (1)
9/25/2018 3/27/2019	0.013 (J)	0.57	0.33	0.0096 (J)	0.0046 (J)	0.007 (J)
	0.013 (3)	0.57	0.33	0.0066 (J)		
4/2/2019				0.0066 (3)	-0.04	0.0053 (1)
4/3/2019 9/25/2019				0.0081 (1)	<0.04	0.0053 (J)
				0.0081 (J)	0.0062 (1)	0.0070 (1)
9/26/2019	0.040 / 1)	0.50			0.0062 (J)	0.0072 (J)
10/8/2019	0.012 (J)	0.58	0.05			
10/9/2019	0.000 (1)	0.04	0.35			
3/17/2020	0.023 (J)	0.61	0.37			
3/24/2020				0.0092 (J)	0.0054 (J)	0.01 (J)
9/22/2020	0.0076 (J)	0.59				
9/23/2020			0.32	0.0066 (J)	0.021 (J)	0.006 (J)
3/1/2021	0.013 (J)	0.54	0.32			
3/3/2021				0.01 (J)	<0.04	0.0094 (J)
8/19/2021	0.011 (J)	0.56	0.31			
8/26/2021						<0.04
8/27/2021				0.011 (J)	<0.04	
2/8/2022	0.015 (J)					
2/9/2022		0.58	0.34	0.0098 (J)	<0.04	<0.04

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Time Series

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/30/2022				0.013 (J)	<0.04	0.014 (J)
8/31/2022	0.0091 (J)	0.54	0.33			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.04	<0.04
6/7/2016	<0.04	<0.04				
7/26/2016					0.0047 (J)	0.0052 (J)
7/27/2016	<0.04					
7/28/2016		<0.04				
9/14/2016					<0.04	0.0071 (J)
9/19/2016	<0.04	<0.04				
11/2/2016	<0.04				<0.04	<0.04
11/3/2016		<0.04				
1/12/2017						0.0076 (J)
1/13/2017	<0.04	<0.04			<0.04	
3/6/2017	<0.04	<0.04			<0.04	
3/7/2017						0.0089 (J)
4/26/2017	<0.04	<0.04				
5/1/2017					<0.04	0.0061 (J)
6/27/2017						0.0079 (J)
6/29/2017	<0.04	<0.04			<0.04	
10/3/2017		<0.04				0.0094 (J)
10/4/2017	<0.04					
10/5/2017					<0.04	
10/11/2017			0.0135 (J)			
10/12/2017				0.0401		
11/20/2017			0.0251 (J)	0.156		
1/10/2018				0.15		
1/11/2018			0.0255 (J)			
2/19/2018				0.146		
2/20/2018			<0.04			
4/3/2018			0.033 (J)	0.12		
6/5/2018		0.0092 (J)				
6/6/2018	0.0049 (J)					0.0098 (J)
6/7/2018					0.0045 (J)	
6/28/2018			0.053	0.16		
8/7/2018			0.024 (J)	0.12		
9/24/2018			0.028 (J)	0.099		
9/25/2018	<0.04	0.0054 (J)				
9/26/2018					0.005 (J)	0.01 (J)
3/26/2019				0.096		
3/27/2019			0.017 (J)			
4/2/2019		0.011 (J)				
4/3/2019	<0.04				0.0055 (J)	0.0076 (J)
9/24/2019		0.018 (J)				0.01 (J)
9/25/2019	<0.04				<0.04	
10/9/2019			0.017 (J)	0.079		
3/24/2020	<0.04	0.016 (J)		0.088 (J)		0.011 (J)
3/25/2020			0.043 (J)		0.011 (J)	
9/22/2020					<0.04	0.0079 (J)
9/24/2020	0.0094 (J)	0.013 (J)	0.037 (J)	0.087 (J)		
3/2/2021	0.04				0.0050 ("	0.0068 (J)
3/3/2021	<0.04	0.0070 ();	0.000 ("	0.070	0.0056 (J)	
3/4/2021		0.0079 (J)	0.033 (J)	0.078		
8/26/2021	0.04		0.095		<0.04	0.009 (J)
8/27/2021	<0.04					

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
9/1/2021		<0.04				
9/3/2021				0.077		
2/8/2022			0.13	0.074		
2/9/2022	<0.04	<0.04				
2/10/2022						0.011 (J)
2/11/2022					<0.04	
8/30/2022		0.012 (J)				0.0098 (J)
8/31/2022	<0.04		0.14	0.062	<0.04	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				<0.04	<0.04	
6/2/2016	<0.04		<0.04			
7/25/2016					<0.04	
7/26/2016	<0.04		0.0177 (J)	0.0055 (J)		
8/31/2016		0.0315 (J)				
9/13/2016		0.0010 (0)		<0.04	<0.04	
9/14/2016	0.01 (J)			10.04	-0.04	<0.04
9/15/2016	0.01 (3)		0.0214 (J)			\0.04
			0.0214 (3)	0.0000 (1)		
11/1/2016			-0.04	0.0086 (J)		
11/2/2016			<0.04		.0.01	.0.61
11/4/2016	<0.04				<0.04	<0.04
11/28/2016		0.0095 (J)				
12/15/2016						0.0107 (J)
1/10/2017			0.0198 (J)			
1/11/2017				0.0074 (J)		
1/12/2017	<0.04					
1/16/2017					<0.04	<0.04
2/22/2017		<0.04				
3/2/2017				0.008 (J)	<0.04	
3/3/2017				. ,		<0.04
3/7/2017	<0.04					
3/8/2017			0.0189 (J)			
4/26/2017			0.0161 (J)			
4/27/2017			0.0101 (0)	0.0066 (J)	<0.04	
				0.0000 (3)	\U.U4	<0.04
4/28/2017	-0.04					<0.04
5/2/2017	<0.04	0.000475				
5/8/2017		0.0084 (J)				.0.04
5/26/2017						<0.04
6/27/2017	<0.04			0.0087 (J)	0.006 (J)	
6/28/2017						<0.04
6/30/2017			0.0173 (J)			
7/17/2017		0.0092 (J)				
10/3/2017	<0.04			0.0072 (J)	0.0071 (J)	<0.04
10/5/2017			0.0173 (J)			
10/16/2017		<0.04				
2/19/2018		<0.04				
6/5/2018				0.0052 (J)		
6/6/2018				(-)	<0.04	
6/7/2018	<0.04					<0.04
6/8/2018	~U.U4		0.012 (1)			~U.U4
		10.04	0.013 (J)			
8/6/2018		<0.04				
9/26/2018	0.0057 (J)					
10/1/2018			0.015 (J)	0.021 (J)	0.0049 (J)	<0.04
2/25/2019		<0.04				
3/28/2019				0.005 (J)	<0.04	
3/29/2019			0.014 (J)			0.0065 (J)
4/3/2019	0.0044 (J)					
6/12/2019		<0.04				
9/24/2019	0.0049 (J)			0.0064 (J)	0.0055 (J)	0.0076 (J)
9/25/2019	.,		0.018 (J)	. ,	` '	` '
10/8/2019		<0.04	(0)			
3/17/2020		0.0051 (J)				
3/1//2020		0.0051 (3)				

3/18/2020	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg) 0.02 (J)	YGWA-1D (bg)	YGWA-1I (bg) 0.0087 (J)	YGWA-2I (bg)
3/19/2020				0.0085 (J)		0.0073 (J)
3/24/2020	0.0068 (J)					
9/22/2020	0.0053 (J)	0.0079 (J)				
9/23/2020				<0.04	<0.04	<0.04
9/25/2020			0.02 (J)			
3/2/2021	0.011 (J)	<0.04	0.017 (J)			
3/3/2021				<0.04	<0.04	<0.04
8/19/2021			0.018 (J)	<0.04	<0.04	
8/20/2021		<0.04				
8/26/2021	<0.04					
8/27/2021						<0.04
2/8/2022		<0.04				
2/9/2022				<0.04	<0.04	<0.04
2/10/2022	<0.04		0.02 (J)			
8/30/2022	<0.04	<0.04		<0.04		<0.04
8/31/2022			0.015 (J)		<0.04	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016	(59)	(55 (5g)	<0.04		. 3 02
6/2/2016	<0.04	<0.04	J.J.		
7/25/2016	<0.04	-0.04	<0.04		
7/26/2016	-0.0-1	0.0097 (J)	-0.0-1		
9/1/2016		0.0097 (3)		2.12	
9/1/2016			<0.04	2.12	
9/15/2016		0.0102 (J)	10.04		
9/19/2016	<0.04	0.0102 (3)			
		-0.04	-0.04		
11/1/2016 11/16/2016	<0.04	<0.04	<0.04	2.03	
		-0.04	-0.04	2.03	
1/11/2017	-0.04	<0.04	<0.04		
1/16/2017	<0.04				
2/21/2017	<0.04			1.00	
2/27/2017				1.29	
3/1/2017			<0.04		
3/2/2017		0.0084 (J)			
4/26/2017	<0.04	<0.04	<0.04		
5/8/2017				1.71	
6/28/2017		<0.04	<0.04		
6/30/2017	<0.04				
7/13/2017				1.62	
10/4/2017	<0.04	<0.04	<0.04		
10/11/2017				1.17	
4/4/2018				1.2	
6/7/2018		0.004 (J)			
6/8/2018			<0.04		
6/11/2018	0.014 (J)				
9/19/2018				1.2	
10/1/2018		<0.04	<0.04		
10/2/2018	<0.04				
3/27/2019				0.89	
4/1/2019	<0.04	<0.04	<0.04		
9/25/2019	<0.04	0.0054 (J)	<0.04		
10/9/2019		ν-,		1.1	
3/17/2020				1.3	
3/19/2020	0.0052 (J)	0.0073 (J)	0.0053 (J)	-	
7/6/2020	(0)	(0)	(0)	2	
8/27/2020				-	0.014 (J)
8/28/2020				1.8	0.017 (0)
9/22/2020				1.0	<0.04
9/23/2020		0.012 (!\	0.0073 (1)	2	~U.U4
	0.0075 (1)	0.012 (J)	0.0073 (J)	2	
9/24/2020	0.0075 (J)			1.0	0.010 (1)
10/7/2020				1.8	0.018 (J)
11/12/2020	-0.04			1.8	0.012 (J)
3/1/2021	<0.04				0.015 (J)
3/2/2021				1.9	
3/3/2021		<0.04	<0.04		
8/19/2021	<0.04	<0.04			
8/20/2021					<0.04
8/27/2021			<0.04	1.9	
2/9/2022		0.01 (J)	<0.04	2.1	0.0089 (J)
2/11/2022	<0.04				

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
8/31/2022	<0.04	<0.04	<0.04	2.1	< 0.04

6/6/2016	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg) <0.0005	YGWA-18S (bg <0.0005
6/7/2016				<0.0005		
7/27/2016				<0.0005	<0.0005	<0.0005
8/30/2016	0.0001 (J)					
8/31/2016		<0.0005	<0.0005			
9/16/2016				<0.0005		<0.0005
9/19/2016					<0.0005	
11/3/2016				<0.0005	<0.0005	<0.0005
11/14/2016	0.0001 (J)		<0.0005			
11/15/2016		<0.0005				
1/11/2017				0.0001 (J)	<0.0005	0.0001 (J)
2/24/2017	9E-05 (J)			0.0001 (0)	0.0000	0.000 (0)
2/27/2017	3L 00 (0)		<0.0005			
2/28/2017		<0.0005	10.0003			
3/1/2017		<0.0003			<0.000E	<0.000E
				-0.0005	<0.0005	<0.0005
3/2/2017				<0.0005	.0.005	.0.005
4/26/2017					<0.0005	<0.0005
5/2/2017				<0.0005		
5/8/2017	0.0001 (J)	<0.0005				
5/9/2017			<0.0005			
6/28/2017					<0.0005	<0.0005
6/29/2017				<0.0005		
7/11/2017	<0.0005					
7/13/2017		<0.0005	<0.0005			
10/10/2017	<0.0005	<0.0005	<0.0005			
3/28/2018				<0.0005	<0.0005	<0.0005
4/2/2018	<0.0005					
4/3/2018			<0.0005			
4/4/2018		<0.0005				
6/7/2018					<0.0005	
6/11/2018				<0.0005		<0.0005
9/19/2018	<0.0005	<0.0005	<0.0005			
9/25/2018				<0.0005	<0.0005	<0.0005
3/5/2019				<0.0005		<0.0005
3/6/2019					<0.0005	
4/2/2019				<0.0005		
4/3/2019					<0.0005	<0.0005
8/20/2019	<0.0005	<0.0005	<0.0005			
9/25/2019				<0.0005		
9/26/2019					<0.0005	<0.0005
10/8/2019	<0.0005	<0.0005			0.0000	0.0000
10/9/2019	10.0003	10.0003	<0.0005			
2/11/2020			10.0003	<0.0005	<0.0005	<0.0005
	<0.000E	<0.000E	<0.000E	<0.0005	<0.0005	<0.0003
3/17/2020	<0.0005	<0.0005	<0.0005	-0.0005	-0.0005	-0.0005
3/24/2020	-0.0005	-0.0005		<0.0005	<0.0005	<0.0005
8/27/2020	<0.0005	<0.0005				
8/28/2020			<0.0005	_		
9/23/2020				<0.0005	<0.0005	<0.0005
2/9/2021					<0.0005	<0.0005
3/3/2021				<0.0005	<0.0005	<0.0005
8/19/2021	<0.0005	<0.0005	<0.0005			
8/26/2021						<0.0005

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/27/2021				<0.0005	<0.0005	
2/8/2022	<0.0005					
2/9/2022		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/30/2022				<0.0005	<0.0005	<0.0005
8/31/2022	<0.0005	<0.0005	<0.0005			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.0005	<0.0005
6/7/2016	<0.0005	<0.0005				
7/26/2016					<0.0005	<0.0005
7/27/2016	<0.0005					
7/28/2016		<0.0005				
9/14/2016					<0.0005	<0.0005
9/19/2016	<0.0005	<0.0005				
11/2/2016	<0.0005				<0.0005	<0.0005
11/3/2016		<0.0005				
1/12/2017						<0.0005
1/13/2017	<0.0005	<0.0005			<0.0005	
3/6/2017	<0.0005	<0.0005			<0.0005	
3/7/2017						<0.0005
4/26/2017	<0.0005	<0.0005				
5/1/2017					<0.0005	<0.0005
6/27/2017						<0.0005
6/29/2017	<0.0005	<0.0005			<0.0005	
10/11/2017			<0.0005			
10/12/2017				<0.0005		
11/20/2017			<0.0005	<0.0005		
1/10/2018				<0.0005		
1/11/2018			<0.0005			
2/19/2018				<0.0005		
2/20/2018			<0.0005			
3/29/2018	<0.0005	<0.0005			<0.0005	<0.0005
4/3/2018			<0.0005	<0.0005		
6/5/2018		<0.0005				
6/6/2018	<0.0005					<0.0005
6/7/2018					<0.0005	
6/28/2018			<0.0005	<0.0005		
8/7/2018			<0.0005	<0.0005		
9/24/2018			<0.0005	<0.0005		
9/25/2018	<0.0005	9.6E-05 (J)				
9/26/2018					<0.0005	<0.0005
3/4/2019					<0.0005	<0.0005
3/5/2019	<0.0005	<0.0005				
4/2/2019		<0.0005				
4/3/2019	<0.0005				<0.0005	<0.0005
8/21/2019			<0.0005	<0.0005		
9/24/2019		<0.0005				<0.0005
9/25/2019	<0.0005				<0.0005	
10/9/2019			<0.0005	<0.0005		
2/12/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/24/2020	<0.0005	<0.0005		<0.0005		<0.0005
3/25/2020			<0.0005		<0.0005	
9/22/2020					<0.0005	<0.0005
9/24/2020	<0.0005	<0.0005	<0.0005	<0.0005		
2/8/2021						<0.0005
2/9/2021	<0.0005	0.00041 (J)			<0.0005	
2/10/2021	-	(-)	0.00019 (J)	<0.0005	-	
3/2/2021						<0.0005
3/3/2021	<0.0005				<0.0005	

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/4/2021		<0.0005	0.0003 (J)	<0.0005		
8/26/2021			0.00049 (J)		<0.0005	<0.0005
8/27/2021	<0.0005					
9/1/2021		<0.0005				
9/3/2021				<0.0005		
2/8/2022			0.00063	<0.0005		
2/9/2022	<0.0005	<0.0005				
2/10/2022						<0.0005
2/11/2022					<0.0005	
8/30/2022		<0.0005				<0.0005
8/31/2022	<0.0005		0.00044 (J)	<0.0005	<0.0005	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)	
5/1/2007	- (-3)	<0.0005	- (-3)	(-3)	(-3)	(*3)	
9/11/2007		<0.0005					
3/20/2008		<0.0005					
8/27/2008		<0.0005					
3/3/2009		<0.0005					
11/18/2009		<0.0005					
3/3/2010		<0.0005					
9/8/2010		<0.0005					
		<0.0005					
3/10/2011 9/8/2011		<0.0005					
3/5/2012							
		<0.0005					
9/10/2012		<0.0005					
2/6/2013		<0.0005					
8/12/2013		<0.0005					
2/5/2014		<0.0005					
8/5/2014		<0.0005					
2/4/2015		<0.0005					
8/3/2015		<0.0005					
2/16/2016		<0.0005					
6/1/2016				<0.0005	<0.0005		
6/2/2016	<0.0005		<0.0005				
7/25/2016					<0.0005		
7/26/2016	<0.0005		<0.0005	<0.0005			
8/31/2016		<0.0005					
9/13/2016				<0.0005	<0.0005		
9/14/2016	<0.0005					<0.0005	
9/15/2016			<0.0005				
11/1/2016				<0.0005			
11/2/2016			<0.0005				
11/4/2016	<0.0005				<0.0005	<0.0005	
11/28/2016		<0.0005					
12/15/2016						<0.0005	
1/10/2017			<0.0005				
1/11/2017				0.0002 (J)			
1/12/2017	9E-05 (J)						
1/16/2017					<0.0005	<0.0005	
2/22/2017		<0.0005					
3/2/2017				<0.0005	<0.0005		
3/3/2017						<0.0005	
3/7/2017	<0.0005						
3/8/2017	y		7E-05 (J)				
4/26/2017			<0.0005				
4/27/2017			3.0000	<0.0005	<0.0005		
4/27/2017				-0.0003	-0.0000	<0.0005	
	<0.0005					~0.0000	
5/2/2017	<0.0005	<0.000E					
5/8/2017		<0.0005				10 0005	
5/26/2017						<0.0005	
6/27/2017	<0.0005			<0.0005	<0.0005		
6/28/2017						<0.0005	
6/30/2017			<0.0005				
7/17/2017		<0.0005					
10/16/2017		<0.0005					

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.0005				
3/27/2018			<0.0005		<0.0005	
3/28/2018						<0.0005
3/29/2018	<0.0005			<0.0005		
6/7/2018	<0.0005					
8/6/2018		<0.0005				
9/26/2018	<0.0005					
2/25/2019		<0.0005				
2/26/2019			<0.0005			
2/27/2019				<0.0005	<0.0005	<0.0005
3/4/2019	<0.0005					
3/28/2019				<0.0005	<0.0005	
3/29/2019			<0.0005			<0.0005
4/3/2019	<0.0005					
6/12/2019		<0.0005				
8/19/2019		<0.0005				
9/24/2019	<0.0005			<0.0005	<0.0005	<0.0005
9/25/2019			<0.0005			
10/8/2019		<0.0005				
2/10/2020				<0.0005	<0.0005	
2/11/2020						<0.0005
2/12/2020	<0.0005		<0.0005			
3/17/2020		<0.0005				
3/18/2020			<0.0005		<0.0005	
3/19/2020				<0.0005		<0.0005
3/24/2020	<0.0005					
8/26/2020		<0.0005				
9/22/2020	<0.0005	<0.0005				
9/23/2020				<0.0005	<0.0005	<0.0005
9/25/2020			<0.0005			
2/8/2021	<0.0005					
2/10/2021			<0.0005			<0.0005
2/12/2021				<0.0005	<0.0005	
3/2/2021	<0.0005	<0.0005	<0.0005			
3/3/2021				<0.0005	<0.0005	<0.0005
8/19/2021			<0.0005	<0.0005	<0.0005	
8/20/2021		<0.0005				
8/26/2021	<0.0005					
8/27/2021						<0.0005
2/8/2022		<0.0005				
2/9/2022				<0.0005	<0.0005	<0.0005
2/10/2022	<0.0005		<0.0005			
8/30/2022	<0.0005	<0.0005		<0.0005		<0.0005
8/31/2022			<0.0005		<0.0005	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.0005		
6/2/2016	<0.0005	<0.0005			
7/25/2016	<0.0005		<0.0005		
7/26/2016		<0.0005			
9/1/2016				<0.0005	
9/14/2016			<0.0005		
9/15/2016		<0.0005			
9/19/2016	<0.0005				
11/1/2016	<0.0005	<0.0005	<0.0005		
11/16/2016				<0.0005	
1/11/2017		0.0001 (J)	8E-05 (J)		
1/16/2017	<0.0005				
2/21/2017	<0.0005				
2/27/2017				<0.0005	
3/1/2017			<0.0005		
3/2/2017		<0.0005			
4/26/2017	<0.0005	<0.0005	<0.0005		
5/8/2017				0.0001 (J)	
6/28/2017		<0.0005	<0.0005		
6/30/2017	<0.0005				
7/13/2017				<0.0005	
10/11/2017				<0.0005	
3/27/2018	<0.0005				
3/28/2018		<0.0005	<0.0005		
4/4/2018				<0.0005	
9/19/2018				<0.0005	
2/26/2019	<0.0005				
2/27/2019		<0.0005	<0.0005		
4/1/2019	<0.0005	<0.0005	<0.0005		
8/21/2019				0.00012 (J)	
9/25/2019	<0.0005	<0.0005	<0.0005		
10/9/2019				<0.0005	
2/11/2020			<0.0005		
2/12/2020	<0.0005	<0.0005			
3/17/2020				0.00012 (J)	
3/19/2020	<0.0005	<0.0005	<0.0005		
7/6/2020				<0.0005	
8/27/2020					<0.0005
8/28/2020				<0.0005	
9/23/2020		<0.0005	<0.0005		
9/24/2020	<0.0005				
11/12/2020				<0.0005	<0.0005
2/10/2021		<0.0005	<0.0005		
2/11/2021	<0.0005				
3/1/2021	<0.0005				
3/3/2021		<0.0005	<0.0005		
8/19/2021	<0.0005	<0.0005			
8/20/2021					<0.0005
8/27/2021			<0.0005	<0.0005	
2/9/2022		<0.0005	<0.0005	<0.0005	<0.0005
2/11/2022	<0.0005				
8/31/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016	(*3)			- (-3)		1.4
6/7/2016				2.2	0.2	
7/27/2016				2	4.73	1.19
8/30/2016	20.9			-		
8/31/2016	20.5	27.3	46.7			
9/16/2016		27.3	40.7	1.97		1.5
				1.97		1.5
9/19/2016					4.76	
11/3/2016				1.99	5.25	1.31
11/14/2016	18.6		50.6			
11/15/2016		27.8				
1/11/2017				2.28	4.74	1.25
2/24/2017	16.1					
2/27/2017			49.4			
2/28/2017		26.4				
3/1/2017					5.37	1.26
3/2/2017				2.15		
4/26/2017					4.28	1.05
5/2/2017				1.95		
5/8/2017	14.6	29.9				
5/9/2017			56			
6/28/2017					4.95	1.06
6/29/2017				2.02		
7/11/2017	14.3					
7/13/2017		30.2	54.8			
10/4/2017				2.03		1.1
10/5/2017					5.28	
10/10/2017	12.1	27.2	52.8			
4/2/2018	<25					
4/3/2018			50.6			
4/4/2018		30.1				
6/7/2018					4.8	
6/11/2018				2.1		1.4
9/19/2018	11.1 (J)	29.2	50.5			
9/25/2018	(5)			2.1	4.6	1
3/27/2019	10.8 (J)	27.9	48.8			
4/2/2019	10.0 (0)	27.0	40.0	2.5		
4/3/2019				2.5	5.3	1.2
9/25/2019				2.6	5.5	1.2
9/26/2019				2.0	4.9	1.1
	0.7	20.1			4.9	1.1
10/8/2019	9.7	28.1	17.0			
10/9/2019	44.0	0.1.0	47.9			
3/17/2020	14.8	31.9	54.8			
3/24/2020				2.7	5.3	1
9/22/2020	10.1	30.4				
9/23/2020			50	2.6	5.2	0.91 (J)
3/1/2021	10.3	31.9	50.7			
3/3/2021				2.5	5.2	0.96 (J)
8/19/2021	9.6	31.7	50.4			
8/26/2021						0.98 (J)
8/27/2021				2.7	5.1	
2/8/2022	9.4					
2/9/2022		30.8	49.3	2.8	5.1	0.87 (J)

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Time Series

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/30/2022				3	5.7	0.77 (J)
8/31/2022	9.6	30.8	51.8			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016		(59)	(29)	. a (5g)	8.8	33
6/7/2016	2.3	3.7			0.0	
7/26/2016	2.0	· · ·			7.69	32.3
7/27/2016	2.08				7.03	UZ.0
7/28/2016	2.00	3.15				
9/14/2016		3.13			8.49	31
9/19/2016	1.97	3.17			0.49	31
		3.17			7.00	20.0
11/2/2016	2.13	2.4			7.83	30.9
11/3/2016		3.4				25.7
1/12/2017	0.45	4.00			0.00	35.7
1/13/2017	2.45	4.98			8.08	
3/6/2017	2.48	6.28			8.64	20.7
3/7/2017	0.0	0.05				32.7
4/26/2017	2.3	6.65			40.4	07
5/1/2017					13.4	37
6/27/2017	0.54	0.04			0.04	36.5
6/29/2017	2.54	6.04			8.81	00.0
10/3/2017		8.28				30.9
10/4/2017	2.25					
10/5/2017					9.29	
10/11/2017			2.74			
10/12/2017				2.9		
11/20/2017			1.81	10.4		
1/10/2018				10.2		
1/11/2018			1.54			
2/19/2018				<25		
2/20/2018			1.71			
4/3/2018			1.4	6.3		
6/5/2018		9.1				
6/6/2018	2.3					26.2
6/7/2018					8.2	
6/28/2018			1.4	6.7		
8/7/2018			1.2	6.3		
9/24/2018			1.1	5.7		
9/25/2018	2.3	10.4 (J)				
9/26/2018					9.5 (J)	25.8
3/26/2019				5.6		
3/27/2019			1.5			
4/2/2019		8.8				
4/3/2019	2.9				8.4	24.7 (J)
9/24/2019		7.7				25.8
9/25/2019	2.4				9.5	
10/9/2019			2.4	4.9		
3/24/2020	2.6	6		4.8		26.1
3/25/2020			2.7		10.5	
9/22/2020					9.6	27.2
9/24/2020	2.6	7.8	3.7	4.4		
3/2/2021						1.6
3/3/2021	2.4				7.7	
3/4/2021		8.7	8.2	4.6		
8/26/2021			14.1		7.6	25.2
8/27/2021	2.4					

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
9/1/2021		9.5				
9/3/2021				5.6		
2/8/2022			15.2	6		
2/9/2022	2.3	9.8				
2/10/2022						24.8
2/11/2022					7.5	
8/30/2022		7.3				24.8
8/31/2022	2.4		16.3	6.2	8.9	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				12	2.5	
6/2/2016	2.4		1.3			
7/25/2016					2.16	
7/26/2016	2.12		1.24	11		
8/31/2016		9.31				
9/13/2016				11.8	2.21	
9/14/2016	2.18					23.5
9/15/2016			1.17			
11/1/2016				11		
11/2/2016			1.23			
11/4/2016	2.17 (J)				2.67	23.7
11/28/2016	.,	9.47 (B)				
12/15/2016		- ()				23.1
1/10/2017			1.24			
1/11/2017				11.2		
1/12/2017	2.37					
1/16/2017	2.07				2.45	23.3
2/22/2017		10.4			2.10	25.0
3/2/2017		10.4		11	2.57	
3/3/2017					2.07	25.1
3/7/2017	2.34					25.1
3/8/2017	2.54		1.21			
4/26/2017 4/27/2017			1.14	11.1	2.38	
				11.1	2.36	20.7
4/28/2017	0.17					30.7
5/2/2017	2.17	14.0				
5/8/2017		14.2				20.2
5/26/2017	0.40			10.0	0.00	26.2
6/27/2017	2.13			13.8	2.36	
6/28/2017			101			26.1
6/30/2017			1.24			
7/17/2017		14.1				
10/3/2017	2.15			14	2.21	26.7
10/5/2017			1.11			
10/16/2017		13.6				
2/19/2018		<25				
6/5/2018				15.2 (J)		
6/6/2018					2.3	
6/7/2018	2.3					25
6/8/2018			1.1			
8/6/2018		11.4 (J)				
9/26/2018	2.3					
10/1/2018			0.99	15.1	1.8	25
2/25/2019		12.7 (J)				
3/28/2019				13.3 (J)	2.2	
3/29/2019			1.1			23.5 (J)
4/3/2019	2.8					
6/12/2019		18.9				
9/24/2019	2.5			15.8	2.3	26.4
9/25/2019			1.1			
10/8/2019		28.3				
3/17/2020		24.3				

3/18/2020	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg) 2.1	YGWA-2I (bg)
			1.1	45	2.1	07.4
3/19/2020				15		27.4
3/24/2020	2.5					
9/22/2020	2.6	31				
9/23/2020				14.1	1.8	26.3
9/25/2020			1.3			
3/2/2021	2.6	34.2	1.2			
3/3/2021				14.1	1.8	25.6
8/19/2021			1.2	14.2	2	
8/20/2021		26.5				
8/26/2021	2.5					
8/27/2021						22.6
2/8/2022		25.6				
2/9/2022				14.9	2.1	23.4
2/10/2022	2.5		1.3			
8/30/2022	2.5	23.5		14.9		25.4
8/31/2022			1.3		1.9	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			21		
6/2/2016	1.3	28			
7/25/2016	1.17		20.3		
7/26/2016		24.5			
9/1/2016				96.8	
9/14/2016			19.7		
9/15/2016		27			
9/19/2016	1.05	_,			
11/1/2016	1.14	25.6	18.4		
11/1/2016	1.17	20.0	10.7	107	
		27.5	20.3	107	
1/11/2017	1 22	27.5	20.3		
1/16/2017	1.23				
2/21/2017	1.25			404	
2/27/2017				104	
3/1/2017			18.6		
3/2/2017		27.5			
4/26/2017	1.03	30.4	25.6		
5/8/2017				103	
6/28/2017		29.8	23.9		
6/30/2017	1.13				
7/13/2017				83.7	
10/4/2017	1.09	29.7	22.1		
10/11/2017				69	
4/4/2018				51.9	
6/7/2018		29.1			
6/8/2018			21.9 (J)		
6/11/2018	1.1		.,		
9/19/2018				51.9	
10/1/2018		26.9	19.7		
10/2/2018	1.1	_0.0			
3/27/2019				54.2	
4/1/2019	1.3	30.1	20.4 (1)	J7.2	
			20.4 (J)		
9/25/2019	1.1	29.5	22.4	64.0	
10/9/2019				64.2	
3/17/2020				70.4	
3/19/2020	1.2	31.5	21.9		
7/6/2020				105	
8/27/2020					52.3
8/28/2020				102	
9/22/2020					53.5
9/23/2020		28.6	23.6	104	
9/24/2020	1.1				
10/7/2020				105	53.8
11/12/2020				110	53.6
3/1/2021	1.2				50.6
3/2/2021				110	
3/3/2021		29.8	20.6		
8/19/2021	1.2	28.1			
8/20/2021					47.9
8/27/2021			24.7	108	
2/9/2022		30.3	23.7	109	42.2
2/11/2022	1.5	55.5			
2111/2022	1.0				

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
8/31/2022	1.3	28.7	23.5	110	41.8

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					6.8	6.4
6/7/2016				4.5		
7/27/2016				4.5	6.7	6.2
8/30/2016	5.2					
8/31/2016		13	5.8			
9/16/2016				4.5		6.1
9/19/2016					7	
11/3/2016				5.4	7.5	7.4
11/14/2016	6.4		5.8			
11/15/2016		14	0.0			
1/11/2017				4.7	6.5	6.1
2/24/2017	5.5				0.0	
2/27/2017	0.0		5			
2/28/2017		12	•			
3/1/2017		12			6.9	6
3/2/2017				4.8	0.9	
4/26/2017				4.0	7	6.5
				4.6	,	0.5
5/2/2017 5/8/2017	5.0	13		4.6		
	5.8	13	4.6			
5/9/2017			4.0		7	6.4
6/28/2017				4.5	7	6.4
6/29/2017				4.5		
7/11/2017	5.8					
7/13/2017		13	4.7			
10/4/2017				4.7	_	6.8
10/5/2017					7	
10/10/2017	5.9	14	4.5			
4/2/2018	4.8					
4/3/2018			4.6			
4/4/2018		13.4				
6/7/2018					6.8	
6/11/2018				4.9		6.8
9/19/2018	4	14.2	4.7			
9/25/2018				5.6	7.9	7.8
3/27/2019	4.3	14	4.6			
4/2/2019				4.8		
4/3/2019					6.9	6.3
9/25/2019				5.7		
9/26/2019					7	7.1
10/8/2019	4.4	14.8				
10/9/2019			5.1			
3/17/2020	4.1	14	4.6			
3/24/2020				5	7	6.8
9/22/2020	4.2	14.4				
9/23/2020			4.9	6.6	7.2	7.2
3/1/2021	3.7	14	5			
3/3/2021				7.1	7	7.2
8/19/2021	3.5	13	4.1			
8/26/2021						7.3
8/27/2021				8.5	7.4	
2/8/2022	3.2					
2/9/2022		13.5	4.9	10.9	7.5	7

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	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/30/2022				12	7.9	7
8/31/2022	3.5	14.5	5.4			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					3.7	7.2
6/7/2016	1.9	2.8				
7/26/2016					3.6	6.6
7/27/2016	1.9					
7/28/2016		2.6				
9/14/2016					3.4	6.6
9/19/2016	1.9	2.4				
11/2/2016	2.6				4.5	7.6
11/3/2016		2.9				
1/12/2017						6.8
1/13/2017	2.3	2.5			4.2	
3/6/2017	1.9	2.1			3.6	
3/7/2017						6.8
4/26/2017	2	2.1				
5/1/2017					4.3	7.2
6/27/2017						7
6/29/2017	2.6	2.8			4.2	
10/3/2017		2.2				6.5
10/4/2017	2.6					
10/5/2017					4.7	
10/11/2017			2.4			
10/12/2017				3.8		
11/20/2017			1.8	4.4		
1/10/2018				4.6		
1/11/2018			1.6			
2/19/2018			_	4.6		
2/20/2018			2			
4/3/2018			3.3	5.9		
6/5/2018		1.7				
6/6/2018	2.7					4.7
6/7/2018			0.1	_	4.4	
6/28/2018			2.1	5		
8/7/2018			1.2	4.3		
9/24/2018	2.6	2.2	1.3	4.9		
9/25/2018	3.6	2.2			4.0	4.0
9/26/2018 3/26/2019				4.4	4.8	4.8
3/27/2019			1.4	4.4		
4/2/2019		2.5	1.4			
4/3/2019	3.1	2.5			4.3	4
9/24/2019	3.1	3.1			4.3	3.7
9/25/2019	2.8	3.1			4.5	3.7
10/9/2019	2.0		2.1	5.1	4.5	
3/24/2020	2.7	2.8	2.1	4.7		3.5
3/25/2020	2.7	2.0	1.9	4.7	3.9	3.3
9/22/2020			1.0		4.5	3.6
9/24/2020	2.7	2	2.7	5	7.0	0.0
3/2/2021	2.7	_	2.7	•		3.2
3/3/2021	2.7				4.1	V.L
3/4/2021	2.,	1.8	4.9	4.9	7.1	
8/26/2021		1.0	7.2	7.0	4.4	3.4
8/27/2021	2.8		/. <u>~</u>		7.7	<u></u>
0,2772021	2.0					

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
9/1/2021		1.8				
9/3/2021				5.5		
2/8/2022			7.4	6.2		
2/9/2022	2.8	1.7				
2/10/2022						3.2
2/11/2022					4.1	
8/30/2022		2.4				3.5
8/31/2022	2.9		6.7	6.3	4.4	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				1.3	1.6	
6/2/2016	4.3		4.1			
7/25/2016					1.4	
7/26/2016	4.4		4	1.2		
8/31/2016		4				
9/13/2016				1.1	1.3	
9/14/2016	3.8					1.1
9/15/2016			4.2			
11/1/2016				1.3		
11/2/2016			4.9			
11/4/2016	4.8				1.6	1.4
11/28/2016		4.2				
12/15/2016						2.9
1/10/2017			4.1			
1/11/2017				1.1		
1/12/2017	3.8					
1/16/2017	3.0				1.4	0.98
2/22/2017		3.7			1.4	0.50
		3.7		1	1.0	
3/2/2017				1	1.3	11
3/3/2017	4.5					1.1
3/7/2017	4.5		4.0			
3/8/2017			4.2			
4/26/2017			4.1			
4/27/2017				1	1.3	
4/28/2017						0.91
5/2/2017	4.6					
5/8/2017		4.2				
5/26/2017						0.93
6/27/2017	4.3			1.1	1.4	
6/28/2017						1
6/30/2017			3.7			
7/17/2017		3.8				
10/3/2017	4.2			1.1	1.7	1.2
10/5/2017			3.8			
10/16/2017		4.2				
2/19/2018		4.3				
6/5/2018				1.1		
6/6/2018					1.4	
6/7/2018	4.5					1
6/8/2018			3.4			
8/6/2018		3.8				
9/26/2018	5.1					
10/1/2018			3.8	1.1	1.4	1.1
2/25/2019		4.1				
3/28/2019				1.4	1.5	
3/29/2019			4.2			1.2
4/3/2019	4.2					
6/12/2019		4.7				
9/24/2019	4.5			1.1	1.3	0.95 (J)
9/25/2019			4.8			
10/8/2019		5.1				
3/17/2020		4.8				

		YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/1	8/2020			5.2		1.4	
3/1	9/2020				1.1		0.97 (J)
3/2	24/2020	4.3					
9/2	22/2020	4.2	4.2				
9/2	23/2020				0.99 (J)	1.2	0.88 (J)
9/2	25/2020			5.3			
3/2	2/2021	4.3	4.1	4.9			
3/3	3/2021				0.96 (J)	1.2	0.86 (J)
8/1	9/2021			5	1.1	1.3	
8/2	20/2021		5.2				
8/2	26/2021	4.3					
8/2	27/2021						0.99 (J)
2/8	3/2022		5.7				
2/9	9/2022				1	1.3	1 (J)
2/1	0/2022	4.4		4.7			
8/3	80/2022	4.4	6.3		1.3		1.2
8/3	31/2022			4.6		1.5	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016	. 3/	. 3/	1.3		
6/2/2016	1.9	1.4			
7/25/2016	1.7		1.3		
7/26/2016		1.6			
9/1/2016				37	
9/14/2016			1.3	· ·	
9/15/2016		1.5			
9/19/2016	1.6	1.0			
11/1/2016	1.8	1.7	1.4		
11/1/2016	1.0	1.7	1.4	37	
1/11/2017		1.2	1.1	37	
	1 7	1.2	1.1		
1/16/2017	1.7				
2/21/2017	1.7				
2/27/2017				33	
3/1/2017			1.1		
3/2/2017		1.2			
4/26/2017	1.7	1.2	1.1		
5/8/2017				33	
6/28/2017		1.3	1.2		
6/30/2017	1.8				
7/13/2017				32	
10/4/2017	1.8	1.5	1.2		
10/11/2017				29	
4/4/2018				26.6	
6/7/2018		1.2			
6/8/2018			1.2		
6/11/2018	2				
9/19/2018				26.5	
10/1/2018		1.5	1.2		
10/2/2018	1.8	· · ·			
3/27/2019	1.0			20.9	
4/1/2019	1.7	1.2	1.1	20.5	
9/25/2019	1.6	1.1	1.1	25	
10/9/2019				25	
3/17/2020				24.8	
3/19/2020	1.8	1.2	1.1		
7/6/2020				25.8	
8/27/2020					3.9
8/28/2020				25.9	
9/22/2020					4.1
9/23/2020		1.1	1	28.1	
9/24/2020	1.5				
10/7/2020				28.2	4
11/12/2020				26.7	3.8
3/1/2021	1.6				3.7
3/2/2021				27.4	
3/3/2021		1.1	0.99 (J)		
8/19/2021	1.6	1.1	.,		
8/20/2021					3.1
8/27/2021			1.1	29.3	
2/9/2022		1.1	1.1	28.2	3.2
2/11/2022	2.1		•••		J. <u>_</u>
211112022	2.1				

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	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
8/31/2022	1.8	1.3	1.3	29.9	3.4

6/6/2016	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg) 0.0012 (J)	YGWA-18S (bg) <0.005
6/7/2016				<0.005	(-)	
7/27/2016				0.0008 (J)	0.0007 (J)	0.0006 (J)
8/30/2016	<0.005			. ,	()	. ,
8/31/2016		<0.005	<0.005			
9/16/2016				<0.005		<0.005
9/19/2016					<0.005	
11/3/2016				<0.005	<0.005	<0.005
11/14/2016	0.0093 (J)		0.0061 (J)			
11/15/2016	(-,	<0.005	(-,			
1/11/2017				<0.005	<0.005	<0.005
2/24/2017	<0.005					
2/27/2017			<0.005			
2/28/2017		<0.005				
3/1/2017					0.0012 (J)	<0.005
3/2/2017				0.001 (J)	(-)	
4/26/2017				(5)	0.0005 (J)	0.0003 (J)
5/2/2017				0.0007 (J)	. ,	. ,
5/8/2017	<0.005	<0.005		(-)		
5/9/2017			<0.005			
6/28/2017					0.0006 (J)	<0.005
6/29/2017				0.0006 (J)	()	
7/11/2017	<0.005			. ,		
7/13/2017		<0.005	0.0006 (J)			
10/10/2017	<0.005	<0.005	<0.005			
3/28/2018				<0.005	<0.005	<0.005
4/2/2018	<0.005					
4/3/2018			<0.005			
4/4/2018		<0.005				
9/19/2018	<0.005	<0.005	<0.005			
3/5/2019				<0.005		<0.005
3/6/2019					<0.005	
8/20/2019	<0.005	<0.005	<0.005			
2/11/2020				0.00087 (J)	0.001 (J)	0.00088 (J)
3/24/2020				0.00087 (J)	0.00095 (J)	0.0011 (J)
8/27/2020	<0.005	<0.005				
8/28/2020			<0.005			
9/22/2020	<0.005	<0.005				
9/23/2020			0.00058 (J)	0.00098 (J)	0.00092 (J)	0.0012 (J)
2/9/2021					0.00083 (J)	0.0013 (J)
3/1/2021	<0.005	<0.005	<0.005			
3/3/2021				0.00082 (J)	0.00087 (J)	0.001 (J)
8/19/2021	<0.005	<0.005	<0.005			
8/26/2021						<0.005
8/27/2021				<0.005	<0.005	
2/8/2022	<0.005					
2/9/2022		<0.005	<0.005	<0.005	<0.005	0.0014 (J)
8/30/2022				<0.005	<0.005	0.0015 (J)
8/31/2022	<0.005	<0.005	<0.005			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.005	<0.005
6/7/2016	<0.005	<0.005				
7/26/2016					<0.005	<0.005
7/27/2016	0.0005 (J)					
7/28/2016		<0.005				
9/14/2016					<0.005	<0.005
9/19/2016	<0.005	<0.005				
11/2/2016	<0.005				<0.005	<0.005
11/3/2016		<0.005				
1/12/2017						<0.005
1/13/2017	<0.005	<0.005			<0.005	
3/6/2017	<0.005	<0.005			<0.005	
3/7/2017						<0.005
4/26/2017	0.0007 (J)	<0.005				
5/1/2017					<0.005	0.0004 (J)
6/27/2017						<0.005
6/29/2017	0.0005 (J)	<0.005			<0.005	
10/11/2017			<0.005			
10/12/2017				<0.005		
11/20/2017			<0.005	<0.005		
1/10/2018				<0.005		
1/11/2018			<0.005			
2/19/2018				<0.005		
2/20/2018			<0.005			
3/29/2018	<0.005	<0.005			<0.005	<0.005
4/3/2018			<0.005	<0.005		
6/28/2018			<0.005	<0.005		
8/7/2018			<0.005	<0.005		
9/24/2018			<0.005	<0.005		
3/4/2019					<0.005	<0.005
3/5/2019	<0.005	<0.005				
8/21/2019			<0.005	0.00053 (J)		
10/9/2019			<0.005	0.0012 (J)		
2/12/2020	0.00045 (J)	<0.005	<0.005	0.00065 (J)	<0.005	<0.005
3/24/2020	0.00077 (J)	<0.005		0.00055 (J)		<0.005
3/25/2020	,		<0.005	. ,	0.00058 (J)	
9/22/2020					<0.005	0.0011 (J)
9/24/2020	0.00076 (J)	<0.005	<0.005	<0.005		(3)
2/8/2021	(1)					<0.005
2/9/2021	0.00056 (J)	<0.005			<0.005	
2/10/2021	(-)		<0.005	<0.005		
3/2/2021			0.000	0.000		<0.005
3/3/2021	<0.005				0.0013 (J)	0.000
3/4/2021	-0.000	<0.005	<0.005	<0.005	0.0010 (0)	
8/26/2021		10.000	<0.005	10.003	<0.005	<0.005
8/27/2021	<0.005		10.000		-0.000	-0.000
9/1/2021	10.000	<0.005				
9/3/2021		-0.000		<0.005		
2/8/2022			<0.005	<0.005		
2/9/2022	<0.005	<0.005	~ 0.003	NO.003		
	C00.00	~0.000				<0.00E
2/10/2022					<0.005	<0.005
2/11/2022					<0.005	

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	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
8/30/2022		<0.005				<0.005
8/31/2022	<0.005		<0.005	<0.005	<0.005	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		0.0029				
9/11/2007		0.0084				
3/20/2008		0.0027				
8/27/2008		0.0026				
3/3/2009		0.0022				
11/18/2009		0.0036				
3/3/2010		<0.005				
9/8/2010		<0.005				
3/10/2011		<0.005				
9/8/2011		<0.005				
3/5/2012		<0.005				
9/10/2012		<0.005				
2/6/2013		<0.005				
8/12/2013		<0.005				
2/5/2014		0.0059				
8/5/2014		<0.005				
2/4/2015		<0.005				
8/3/2015		0.0011 (J)				
2/16/2016		<0.005		0.0005	.0.005	
6/1/2016				0.0035	<0.005	
6/2/2016	<0.005		<0.005			
7/25/2016					<0.005	
7/26/2016	<0.005		<0.005	<0.005		
8/31/2016		<0.005				
9/13/2016				<0.005	<0.005	
9/14/2016	<0.005					<0.005
9/15/2016			<0.005			
11/1/2016				<0.005		
11/2/2016			<0.005			
11/4/2016	<0.005				<0.005	<0.005
11/28/2016		<0.005				
12/15/2016						<0.005
1/10/2017			<0.005			
1/11/2017				<0.005		
1/12/2017	<0.005					
1/16/2017					<0.005	<0.005
2/22/2017		<0.005				
3/2/2017				0.0009 (J)	0.0004 (J)	
3/3/2017						0.0005 (J)
3/7/2017	<0.005					
3/8/2017			<0.005			
4/26/2017			<0.005			
4/27/2017				<0.005	<0.005	
4/28/2017						0.0004 (J)
5/2/2017	<0.005					
5/8/2017		<0.005				
5/26/2017						<0.005
6/27/2017	<0.005			<0.005	<0.005	
6/28/2017						<0.005
			<0.005			
6/30/2017						
6/30/2017 7/17/2017		<0.005				

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.005				
3/27/2018			<0.005		<0.005	
3/28/2018						<0.005
3/29/2018	<0.005			<0.005		
8/6/2018		<0.005				
2/25/2019		<0.005				
2/26/2019			<0.005			
2/27/2019				<0.005	<0.005	<0.005
3/4/2019	<0.005					
3/28/2019				<0.005	0.0021 (J)	
3/29/2019			<0.005			<0.005
6/12/2019		<0.005				
8/19/2019		<0.005				
9/24/2019				0.00072 (J)	0.0028 (J)	<0.005
9/25/2019			<0.005			
10/8/2019		<0.005				
2/10/2020				0.00042 (J)	<0.005	
2/11/2020						<0.005
2/12/2020	0.00043 (J)		<0.005			
3/17/2020		<0.005				
3/18/2020			<0.005		0.00044 (J)	
3/19/2020				0.00084 (J)		0.00048 (J)
3/24/2020	0.0014 (J)					
8/26/2020		<0.005				
9/22/2020	<0.005	<0.005				
9/23/2020				0.00062 (J)	0.00058 (J)	<0.005
9/25/2020			<0.005			
2/8/2021	<0.005					
2/10/2021			<0.005			<0.005
2/12/2021				<0.005	<0.005	
3/2/2021	<0.005	<0.005	<0.005			
3/3/2021				<0.005	<0.005	<0.005
8/19/2021			<0.005	<0.005	<0.005	
8/20/2021		<0.005				
8/26/2021	<0.005					
8/27/2021						<0.005
2/8/2022		<0.005				
2/9/2022				<0.005	<0.005	<0.005
2/10/2022	<0.005		<0.005			
8/30/2022	<0.005	<0.005		0.0011 (J)		<0.005
8/31/2022			<0.005		<0.005	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.005		
6/2/2016	<0.005	0.0013 (J)			
7/25/2016	<0.005		<0.005		
7/26/2016		<0.005			
9/1/2016				<0.005	
9/14/2016			<0.005		
9/15/2016		<0.005			
9/19/2016	<0.005				
11/1/2016	<0.005	<0.005	<0.005		
11/16/2016	0.000	0.000	0.000	<0.005	
1/11/2017		<0.005	<0.005		
1/16/2017	<0.005	-0.000	-0.000		
2/21/2017	<0.005				
	~0.003			<0.005	
2/27/2017			0.000471)	<0.005	
3/1/2017		0.0006 (1)	0.0004 (J)		
3/2/2017	0.0016 (!)	0.0006 (J)	<0.00E		
4/26/2017	0.0016 (J)	<0.005	<0.005	-0.005	
5/8/2017			0.05-	<0.005	
6/28/2017		<0.005	<0.005		
6/30/2017	<0.005				
7/13/2017				<0.005	
10/11/2017				<0.005	
3/27/2018	<0.005				
3/28/2018		<0.005	<0.005		
4/4/2018				<0.005	
9/19/2018				<0.005	
2/26/2019	<0.005				
2/27/2019		<0.005	<0.005		
4/1/2019	<0.005	<0.005	<0.005		
8/21/2019				<0.005	
9/25/2019	<0.005	0.0014 (J)	0.0019 (J)		
2/11/2020			<0.005		
2/12/2020	<0.005	<0.005			
3/19/2020	<0.005	<0.005	<0.005		
7/6/2020				<0.005	
8/27/2020					<0.005
8/28/2020				<0.005	
9/22/2020					0.00073 (J)
9/23/2020		<0.005	<0.005	<0.005	
9/24/2020	<0.005				
10/7/2020				<0.005	0.00086 (J)
11/12/2020				<0.005	<0.005
2/10/2021		<0.005	<0.005		
2/11/2021	<0.005				
3/1/2021	<0.005				0.00094 (J)
3/2/2021	,			<0.005	· · · · · · · · · · · · · · · · · · ·
3/3/2021		<0.005	<0.005	.0.000	
8/19/2021	<0.005	<0.005	-0.003		
	~U.UU3	~0.005			<0.005
8/20/2021			<0.005	<0.005	~0.000
8/27/2021		-0.005	<0.005	<0.005	0.0010 (1)
2/9/2022		<0.005	<0.005	<0.005	0.0012 (J)
2/11/2022	<0.005				

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
8/31/2022	<0.005	<0.005	<0.005	<0.005	< 0.005

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg
6/6/2016					<0.005	0.00061 (J)
6/7/2016				<0.005		
7/27/2016				<0.005	<0.005	0.0004 (J)
8/30/2016	0.0073 (J)					
8/31/2016		0.0119	0.0009 (J)			
9/16/2016				<0.005		0.0008 (J)
9/19/2016					<0.005	
11/3/2016				<0.005	<0.005	<0.005
11/14/2016	0.0115		0.0009 (J)			
11/15/2016		0.0033 (J)				
1/11/2017				<0.005	<0.005	<0.005
2/24/2017	0.0106					
2/27/2017			0.001 (J)			
2/28/2017		0.0017 (J)				
3/1/2017					<0.005	<0.005
3/2/2017				<0.005		
4/26/2017					<0.005	<0.005
5/2/2017				<0.005		
5/8/2017	0.0099 (J)	0.0018 (J)				
5/9/2017			0.0008 (J)			
6/28/2017					<0.005	<0.005
6/29/2017				<0.005		
7/11/2017	0.0096 (J)					
7/13/2017		0.0022 (J)	0.0009 (J)			
10/10/2017	0.0036 (J)	0.0017 (J)	0.0008 (J)			
3/28/2018				<0.005	<0.005	<0.005
4/2/2018	<0.005					
4/3/2018			<0.01 (O)			
4/4/2018		<0.005				
6/7/2018					<0.005	
6/11/2018				<0.005		<0.005
9/19/2018	0.0036 (J)	0.0025 (J)	0.00081 (J)			
9/25/2018				<0.005	<0.005	<0.005
3/5/2019				<0.005		<0.005
3/6/2019					<0.005	
4/2/2019				<0.005		
4/3/2019					<0.005	<0.005
8/20/2019	0.00092 (J)	0.002 (J)	0.00071 (J)			
9/25/2019				<0.005		
9/26/2019					<0.005	<0.005
10/8/2019	0.0014 (J)	0.0017 (J)				
10/9/2019			0.0007 (J)			
2/11/2020				<0.005	<0.005	<0.005
3/17/2020	0.0017 (J)	0.004 (J)	0.00081 (J)			
3/24/2020				<0.005	<0.005	<0.005
8/27/2020	0.0011 (J)	0.003 (J)				
8/28/2020			0.00055 (J)			
9/22/2020	0.00097 (J)	0.0065	.,			
9/23/2020	ζ-,		0.00053 (J)	<0.005	<0.005	<0.005
2/9/2021			.,		<0.005	<0.005
3/1/2021	0.001 (J)	0.0033 (J)	0.00062 (J)			
3/3/2021	(-)	- (-/		<0.005	<0.005	<0.005

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/19/2021	0.00099 (J)	0.0014 (J)	0.00048 (J)			
8/26/2021						<0.005
8/27/2021				<0.005	<0.005	
2/8/2022	0.0013 (J)					
2/9/2022		0.0027 (J)	0.00051 (J)	<0.005	<0.005	<0.005
8/30/2022				<0.005	<0.005	<0.005
8/31/2022	0.00096 (J)	0.00099 (J)	0.00069 (J)			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					0.00082 (J)	<0.005
6/7/2016	<0.005	0.0056				
7/26/2016					0.0012 (J)	<0.005
7/27/2016	<0.005					
7/28/2016		0.0032 (J)				
9/14/2016					0.0006 (J)	<0.005
9/19/2016	<0.005	0.0047 (J)				
11/2/2016	<0.005				<0.005	<0.005
11/3/2016		0.013				
1/12/2017						<0.005
1/13/2017	<0.005	0.011			0.0029 (J)	
3/6/2017	<0.005	0.011			0.0006 (J)	
3/7/2017						<0.005
4/26/2017	<0.005	0.009 (J)				
5/1/2017					<0.005	<0.005
6/27/2017						<0.005
6/29/2017	<0.005	0.0093 (J)			0.0005 (J)	
10/11/2017			<0.005			
10/12/2017				<0.005		
11/20/2017			<0.005	<0.005		
1/10/2018				<0.005		
1/11/2018			<0.005			
2/19/2018				<0.005		
2/20/2018			<0.005			
3/29/2018	<0.005	<0.005			<0.005	<0.005
4/3/2018			<0.005	<0.005		
6/5/2018		0.0041 (J)				
6/6/2018	<0.005					<0.005
6/7/2018					0.00058 (J)	
6/28/2018			<0.005	<0.005		
8/7/2018			<0.005	<0.005		
9/24/2018			<0.005	<0.005		
9/25/2018	<0.005	0.0044 (J)				
9/26/2018					<0.005	<0.005
3/4/2019					<0.005	<0.005
3/5/2019	<0.005	0.0039 (J)				
4/2/2019		0.0039 (J)				
4/3/2019	<0.005				0.00083 (J)	<0.005
8/21/2019			0.00034 (J)	<0.005		
9/24/2019		0.0032 (J)				<0.005
9/25/2019	<0.005				<0.005	
10/9/2019			<0.005	<0.005		
2/12/2020	<0.005	0.0081	0.00034 (J)	<0.005	<0.005	0.00037 (J)
3/24/2020	<0.005	0.0061		<0.005		0.00035 (J)
3/25/2020			0.00034 (J)		0.00056 (J)	
9/22/2020					<0.005	<0.005
9/24/2020	<0.005	0.0079	0.00053 (J)	<0.005		
2/8/2021						<0.005
2/9/2021	<0.005	0.009			<0.005	
2/10/2021			0.00098 (J)	<0.005		
3/2/2021						<0.005
3/3/2021	<0.005				<0.005	

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/4/2021		0.0065	0.00071 (J)	<0.005		
8/26/2021			0.0011 (J)		0.00042 (J)	<0.005
8/27/2021	<0.005					
9/1/2021		0.0068				
9/3/2021				<0.005		
2/8/2022			0.0012 (J)	<0.005		
2/9/2022	<0.005	0.0078				
2/10/2022						<0.005
2/11/2022					<0.005	
8/30/2022		0.0066				<0.005
8/31/2022	<0.005		0.00085 (J)	<0.005	<0.005	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		0.0067	, ,	, ,,	, ,	, ,
9/11/2007		<0.005				
3/20/2008		<0.005				
8/27/2008		<0.005				
3/3/2009		<0.005				
11/18/2009		<0.005				
3/3/2010		0.0027				
9/8/2010		0.007				
3/10/2011		<0.005				
9/8/2011		<0.005				
3/5/2012		0.0032				
9/10/2012		<0.005				
2/6/2013		<0.005				
8/12/2013		0.0045				
2/5/2014		<0.005				
8/5/2014		0.0027				
2/4/2015		0.0016				
8/3/2015		0.002				
2/16/2016		0.0027				
6/1/2016				<0.005	0.00082 (J)	
6/2/2016	<0.005		<0.005			
7/25/2016					0.0008 (J)	
7/26/2016	<0.005		<0.005	<0.005		
8/31/2016		0.0053 (J)				
9/13/2016				<0.005	0.0009 (J)	
9/14/2016	<0.005				. ,	<0.005
9/15/2016			<0.005			
11/1/2016				<0.005		
11/2/2016			<0.005			
11/4/2016	<0.005		0.000		0.0025 (J)	<0.005
11/28/2016	0.000	0.0036 (J)			0.0020 (0)	0.000
12/15/2016		0.0000 (0)				<0.005
1/10/2017			<0.005			10.000
			~ 0.003	<0.00E		
1/11/2017	<0.00E			<0.005		
1/12/2017	<0.005				0.0027 / 13	70.00 5
1/16/2017		0.0040.75			0.0027 (J)	<0.005
2/22/2017		0.0049 (J)		-0.005	0.0000 / "	
3/2/2017				<0.005	0.0022 (J)	
3/3/2017						<0.005
3/7/2017	<0.005					
3/8/2017			<0.005			
4/26/2017			<0.005			
4/27/2017				<0.005	0.0018 (J)	
4/28/2017						<0.005
5/2/2017	<0.005					
5/8/2017		0.0059 (J)				
5/26/2017						<0.005
6/27/2017	<0.005			<0.005	0.0023 (J)	
						<0.005
6/28/2017			<0.005			
6/28/2017 6/30/2017 7/17/2017		0.0046 (J)	<0.005			

					. ,	
	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.005				
3/27/2018			<0.005		<0.005	
3/28/2018						<0.005
3/29/2018	<0.005			<0.005		
6/5/2018				<0.005		
6/6/2018					<0.005	
6/7/2018	<0.005					<0.005
6/8/2018			<0.005			
8/6/2018		0.003 (J)				
9/26/2018	<0.005					
10/1/2018			<0.005	<0.005	0.00059 (J)	<0.005
2/25/2019		0.001 (J)				
2/26/2019			<0.005			
2/27/2019				<0.005	0.00064 (J)	<0.005
3/4/2019	<0.005					
3/28/2019				<0.005	0.00091 (J)	
3/29/2019			<0.005			<0.005
4/3/2019	<0.005					
6/12/2019		0.003 (J)				
8/19/2019		0.0035 (J)				
9/24/2019	<0.005			<0.005	0.0013 (J)	<0.005
9/25/2019			<0.005			
10/8/2019		0.0039 (J)				
2/10/2020				<0.005	0.0016 (J)	
2/11/2020						<0.005
2/12/2020	<0.005		<0.005			
3/17/2020		0.003 (J)				
3/18/2020			<0.005		0.00087 (J)	
3/19/2020				<0.005		<0.005
3/24/2020	<0.005					
8/26/2020		0.2 (O)				
9/22/2020	<0.005	0.16 (O)				
9/23/2020				<0.005	0.0013 (J)	<0.005
9/25/2020			<0.005			
2/8/2021	<0.005					
2/10/2021			<0.005			<0.005
2/12/2021	.0.005	0.04 (0)	.0.005	0.00086 (J)	0.0028 (J)	
3/2/2021	<0.005	0.21 (O)	<0.005	.0.005	0.000 (1)	.0.005
3/3/2021				<0.005	0.003 (J)	<0.005
8/19/2021			<0.005	0.00055 (J)	0.0017 (J)	
8/20/2021	.0.005	0.074 (O)				
8/26/2021	<0.005					<0.00E
8/27/2021		0.072./0\				<0.005
2/8/2022		0.072 (O)		0.00073 (1)	0.0022 / 1)	<0.00E
2/9/2022	<0.00E		<0.00E	0.00072 (J)	0.0023 (J)	<0.005
2/10/2022	<0.005	0.075 (0)	<0.005	<0.00E		<0.00E
8/30/2022 8/31/2022	<0.005	0.075 (O)	<0.005	<0.005	0.00085 / 1)	<0.005
0/3/1/2022			<0.005		0.00085 (J)	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.005		
6/2/2016	0.035	<0.005			
7/25/2016	0.0312		<0.005		
7/26/2016		<0.005			
9/1/2016				0.0171	
9/14/2016			<0.005		
9/15/2016		<0.005			
9/19/2016	0.0275				
11/1/2016	0.0255	<0.005	<0.005		
11/16/2016				0.0145	
1/11/2017		<0.005	<0.005		
1/16/2017	0.0245				
2/21/2017	0.0272				
2/27/2017				0.0161	
3/1/2017			<0.005		
3/2/2017		<0.005			
4/26/2017	0.0244	<0.005	<0.005		
5/8/2017				0.0367	
6/28/2017		<0.005	<0.005		
6/30/2017	0.0233				
7/13/2017				0.0265	
10/11/2017				0.0556	
3/27/2018	0.023				
3/28/2018		<0.005	<0.005		
4/4/2018				0.025	
6/7/2018		<0.005			
6/8/2018			<0.005		
6/11/2018	0.023				
9/19/2018				0.042	
10/1/2018		<0.005	<0.005		
10/2/2018	0.022				
2/26/2019	0.021				
2/27/2019		<0.005	<0.005		
4/1/2019	0.022	<0.005	<0.005		
8/21/2019				0.027	
9/25/2019	0.016	<0.005	<0.005		
10/9/2019				0.024	
2/11/2020			<0.005		
2/12/2020	0.014	<0.005			
3/17/2020				0.022	
3/19/2020	0.014	<0.005	<0.005		
7/6/2020				0.0041 (J)	
8/27/2020					0.0022 (J)
8/28/2020				0.0038 (J)	
9/22/2020					0.0019 (J)
9/23/2020		<0.005	<0.005	0.0015 (J)	
9/24/2020	0.0064				
10/7/2020				0.0014 (J)	0.0019 (J)
11/12/2020				0.001 (J)	0.0015 (J)
2/10/2021		<0.005	<0.005		
2/11/2021	0.0078				
3/1/2021	0.0061				0.0013 (J)

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
3/2/2021				0.00096 (J)	
3/3/2021		<0.005	<0.005		
8/19/2021	0.0052	<0.005			
8/20/2021					0.0013 (J)
8/27/2021			<0.005	0.00056 (J)	
2/9/2022		<0.005	<0.005	0.0006 (J)	0.0015 (J)
2/11/2022	0.0038 (J)				
8/31/2022	0.004 (J)	<0.005	<0.005	0.0017 (J)	0.00096 (J)

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/6/2022 4:40 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					0.0804 (U)	0.301 (U)
6/7/2016				0.158 (U)		
7/27/2016				0.0354 (U)	0.206 (U)	0.196 (U)
8/30/2016	1.09					
8/31/2016		2.15	1.65			
9/16/2016				1.04		0.915 (U)
9/19/2016					1.58	
11/3/2016				0.314 (U)	0.342 (U)	0.928 (U)
11/14/2016			0.981 (U)			
11/15/2016		0.676 (U)				
12/15/2016	1 (U)					
1/11/2017				0.34 (U)	0.365 (U)	0.502 (U)
2/24/2017	0.504 (U)					
2/27/2017			0.528 (U)			
2/28/2017		0.241 (U)				
3/1/2017					0.395 (U)	0.202 (U)
3/2/2017				0.746 (U)	, ,	, ,
4/26/2017					0.507 (U)	0.264 (U)
5/2/2017				0.111 (U)	` '	,
5/8/2017	0.455 (U)	0.508 (U)		(-)		
5/9/2017	(-)	(-,	1.4			
6/28/2017					0.892	0.636 (U)
6/29/2017				0.576 (U)	0.002	0.000 (0)
7/11/2017	0.471 (U)			0.070 (0)		
7/13/2017	0.471 (0)	0.77 (U)	0.611 (U)			
10/10/2017	0.649 (U)	1.43	1.47			
3/28/2018	0.043 (0)	1.43	1.47	0.438 (U)	0.92 (U)	0.56 (U)
4/2/2018	0.512 (11)			0.438 (0)	0.92 (0)	0.30 (0)
4/3/2018	0.512 (U)		1.53			
4/4/2018		0.325 (U)	1.55			
6/7/2018		0.323 (0)			0.668 (U)	
				0.001 (11)	0.008 (0)	0.640 (11)
6/11/2018	0.780 (11)	0.286 (11)	0.830 (11)	0.901 (U)		0.649 (U)
9/19/2018	0.789 (U)	0.386 (U)	0.839 (U)	0.00 (11)	0.444 (11)	0.574 (11)
9/25/2018				0.68 (U)	0.141 (U)	0.574 (U)
3/5/2019				0.272 (U)	0.744 (11)	0.474 (U)
3/6/2019				0.047 (11)	0.714 (U)	
4/2/2019				0.847 (U)	0.205 (11)	0.400 (11)
4/3/2019	0.44	4 74	0.00		0.385 (U)	0.429 (U)
8/20/2019	2.44	1.71	2.23	0.440.410		
9/25/2019				0.412 (U)		
9/26/2019	. ==	. === // //			0.386 (U)	0.222 (U)
10/8/2019	1.72	0.769 (U)				
10/9/2019			1.61			
2/11/2020				0.461 (U)	1.48	0.597 (U)
3/17/2020	1.22 (U)	1.37	1.44			
3/24/2020				0.534 (U)	0.632 (U)	0.262 (U)
8/27/2020	1.26 (U)	0.0859 (U)				
8/28/2020			0.983 (U)			
9/22/2020	1.06 (U)	0.327 (U)				
9/23/2020			0.746 (U)	0.466 (U)	0.887 (U)	0.43 (U)
2/9/2021				0.529 (U)	0.314 (U)	0.259 (U)
3/1/2021	1.2	0.0694 (U)	1.28			

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
3/3/2021				0.59 (U)	0.565 (U)	0.352 (U)
8/19/2021	1.07 (U)	0.261 (U)	1.38			
8/26/2021						0.686 (U)
8/27/2021				0.9 (U)	0.761 (U)	
2/8/2022	0.4 (U)					
2/9/2022		0.332 (U)	1.11	0.133 (U)	0.571 (U)	0.0618 (U)
8/30/2022				1.08	1.01	0.611 (U)
8/31/2022	0.714 (U)	0.145 (U)	0.598 (U)			

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/6/2022 4:40 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016	1 (13)	(-3)			0.721	5.11
6/7/2016	0.0191 (U)	0.347				
7/26/2016	. ,				1.26	6.92
7/27/2016	0.541 (U)					
7/28/2016	(-,	0.815 (U)				
9/14/2016		(-,			0.901 (U)	3.96
9/19/2016	0.826 (U)	0.862 (U)			(-,	
11/2/2016	0.791 (U)	(0)			1.09 (U)	4.53
11/3/2016	(2)	0.797 (U)			(2)	
1/12/2017						4.43
1/13/2017	0.296 (U)	0.72 (U)			1.19	
3/6/2017	0.518 (U)	0.518 (U)			0.669 (U)	
3/7/2017	0.010 (0)	0.010 (0)			0.000 (0)	4.8
4/26/2017	0.282 (U)	1.13 (U)				4.0
5/1/2017	0.202 (0)	1.10 (0)			0.803 (U)	4.16
6/27/2017					0.003 (0)	2.8
6/29/2017	1.12	0.841 (U)			1.35	2.0
10/11/2017	1.12	0.841 (0)	0.596 (11)		1.33	
10/11/2017			0.586 (U)	1.40		
			0.816 (U)	1.49		
11/20/2017			0.818 (0)	0.918 (U)		
1/10/2018			0.941 (11)	1.05		
1/11/2018			0.841 (U)	2.05		
2/19/2018			1.50	2.05		
2/20/2018	1.70	4.04	1.58		0.700 (1)	0.40
3/29/2018	1.73	1.91	0.005 (11)	0.00 (11)	0.703 (U)	3.42
4/3/2018		1.20	0.385 (U)	0.68 (U)		
6/5/2018	0.004.410	1.39				0.00
6/6/2018	0.694 (U)				0.000 (11)	3.99
6/7/2018			0.000 (11)	1.00	0.628 (U)	
6/28/2018			0.283 (U)	1.28		
8/7/2018			0.332 (U)	1.16		
9/24/2018			0.767 (U)	0.965 (U)		
9/25/2018	0.772 (U)	1.62				
9/26/2018					0.756 (U)	2.73
3/4/2019					1.21 (U)	4.43
3/5/2019	0.84 (U)	0.985 (U)				
4/2/2019		1.42				
4/3/2019	1.01				1.07 (U)	4.79
8/21/2019			1.01 (U)	1.24 (U)		
9/24/2019		1.35				4.06
9/25/2019	1.18 (U)				1.86	
10/8/2019			1.02 (U)	0.866 (U)		
2/12/2020	1.11 (U)	1.61	0.45 (U)	1.83	1.25	4.02
3/24/2020	1.88	1.24 (U)		1.27 (U)		3.52
3/25/2020			0.377 (U)		0.766 (U)	
9/22/2020					0.795 (U)	2.98
9/24/2020	0.611 (U)	1.8	0.568 (U)	0.634 (U)		
2/8/2021						2.89
2/9/2021	0.284 (U)	1.24			0.626 (U)	
2/10/2021			0.518 (U)	0.783 (U)		
3/2/2021						1.67
3/3/2021	0.133 (U)	1.2			1	

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/4/2021			0.636 (U)	0.818 (U)		
8/26/2021			0.674 (U)		1.17 (U)	4.68
8/27/2021	0.779 (U)					
9/1/2021		1.86				
9/3/2021				0.971 (U)		
2/8/2022			0.834	0.534 (U)		
2/9/2022	0.504 (U)	1.94				
2/10/2022						3.33
2/11/2022					0.996	
8/30/2022		1.27				5.34
8/31/2022	0.184 (U)		0.937	0.513 (U)	0.962	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				0.321 (U)	0.42	
6/2/2016	0.614		0.329 (U)			
7/25/2016					1.83	
7/26/2016	1.47		1.51	0.707 (U)		
8/31/2016		1.2		. ,		
9/13/2016				1.22	0.841	
9/14/2016	1.27				2.0	0.98 (U)
9/15/2016	1.21		1.04 (U)			0.00 (0)
			1.04 (0)	0.805 (11)		
11/1/2016			0.400.415	0.805 (U)		
11/2/2016			0.496 (U)			
11/4/2016	0.434 (U)				0.166 (U)	0.277 (U)
11/28/2016		0.264 (U)				
12/15/2016						0.071 (U)
1/10/2017			0.376 (U)			
1/11/2017				0.705 (U)		
1/12/2017	0.202 (U)					
1/16/2017					0	0.44 (U)
2/22/2017		1.06 (U)				
3/2/2017				0.251 (U)	0.504 (U)	
3/3/2017				` '	` '	0.448 (U)
3/7/2017	0.0674 (U)					(-)
3/8/2017	0.0074 (0)		0.0745 (U)			
4/26/2017			0.282 (U)	1.00	0.502.44	
4/27/2017				1.08	0.593 (U)	
4/28/2017						0.548 (U)
5/2/2017	0.444 (U)					
5/8/2017		0.187 (U)				
5/26/2017						0 (U)
6/27/2017	0.77 (U)			1.02 (U)	0.657 (U)	
6/28/2017						0.608 (U)
6/30/2017			0.994			
7/17/2017		1.42				
10/16/2017		1.17				
2/19/2018		1.58 (D)				
3/27/2018		` '	0.189 (U)		0.39 (U)	
3/28/2018			(-)		(-/	0.412 (U)
3/29/2018	0.648 (U)			0.503 (U)		J Z (U)
	0.040 (U)					
6/5/2018				0.771 (U)	2.0	
6/6/2018					2.8	
6/7/2018	0.745 (U)					0.73 (U)
6/8/2018			0.218 (U)			
8/6/2018		0.196 (U)				
9/26/2018	0.377 (U)					
10/1/2018			1.24	0.783 (U)	1.06 (U)	0.756 (U)
2/26/2019			0.202 (U)			
2/27/2019				1.21 (U)	0.637 (U)	0.635 (U)
3/4/2019	1 (U)			. ,	. ,	
3/28/2019				1.13 (U)	0.125 (U)	
3/29/2019			0 (U)	(5)	20 (0)	0.224 (U)
4/3/2019	0.43 (U)		J (J)			V.227 (U)
	0.43 (0)	1 20				
8/19/2019	0.000 (1)	1.39		100 (11)	0.040.415	0.400.410
9/24/2019	0.699 (U)			1.22 (U)	0.949 (U)	0.429 (U)

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
9/25/2019			0.707 (U)			
10/8/2019		1.32 (U)				
2/10/2020				1.41	1.25 (U)	
2/11/2020						0.817 (U)
2/12/2020	0.913 (U)		1.07 (U)			
3/17/2020		1 (U)				
3/18/2020			0.207 (U)		0.458 (U)	
3/19/2020				1.1		0.715 (U)
8/26/2020		1.75				
9/22/2020	0.428 (U)	0.688 (U)				
9/23/2020				1.35 (U)	0.00884 (U)	0.565 (U)
9/25/2020			0.603 (U)			
2/8/2021	0.613 (U)					
2/10/2021			0.353 (U)			1.04 (U)
2/12/2021				0.366 (U)	0.458 (U)	
3/2/2021	0.579 (U)	0.948 (U)	0.71 (U)			
3/3/2021				0.492 (U)	0.105 (U)	0.459 (U)
8/19/2021			0.786 (U)	1.17 (U)	0.0732 (U)	
8/20/2021		0.528 (U)				
8/26/2021	0.798 (U)					
8/27/2021						0.409 (U)
2/8/2022		0.462 (U)				. ,
2/9/2022		` '		1.19	0.422 (U)	0.894 (U)
2/10/2022	0.375 (U)		0 (U)		ζ-/	(-/
8/30/2022	0.72 (U)	1.52	. ,	0.827		0.699 (U)
8/31/2022	(-)	-	0.421 (U)	-	0.49 (U)	(-)
2.2 2022			(0)		(3)	

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/6/2022 4:40 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52	
6/1/2016			0.896			
6/2/2016	0.0652 (U)	2.51				
7/25/2016	3.01		2.28			
7/26/2016		3.82				
9/1/2016				2.28		
9/14/2016			0.821 (U)	2.20		
		4.24	0.021 (U)			
9/15/2016	0.074 (1)	4.24				
9/19/2016	0.871 (U)	0.00	0.505.00			
11/1/2016	0.307 (U)	3.92	0.585 (U)			
11/16/2016				0.639 (U)		
11/28/2016				0.996		
1/11/2017		2.52	1.22			
1/16/2017	0.284 (U)					
2/21/2017	0.503 (U)					
2/27/2017				0.617 (U)		
3/1/2017			0.877 (U)			
3/2/2017		3.13	. ,			
4/26/2017	0.204 (U)	2.35	0.672 (U)			
5/8/2017	0.204 (0)	2.00	3.072 (0)	0.949		
		2.6	1.07 (11)	0.343		
6/28/2017	0.729 /11	2.6	1.07 (U)			
6/30/2017	0.738 (U)					
7/13/2017				1.41		
10/11/2017				0.856 (U)		
3/27/2018	0.31 (U)					
3/28/2018		3	0.65 (U)			
4/4/2018				0.974		
6/7/2018		2.79				
6/8/2018			1.89			
6/11/2018	0.608 (U)					
9/19/2018				1.15 (U)		
10/1/2018		3.14	1.58	- (-/		
10/2/2018	0.97 (U)					
2/26/2019	0.524 (U)	2.70	2.67			
2/27/2019	1.00 ""	3.79	3.67			
4/1/2019	1.02 (U)	4.33	2.28			
8/21/2019				1.31		
9/25/2019	1.02 (U)	4.2	1.6			
10/9/2019				0.892 (U)		
2/11/2020		3.87	1.85			
2/12/2020	0.301 (U)					
3/17/2020				1.74		
3/19/2020	1	3.96	2.2			
7/6/2020				2.27		
8/27/2020				=:=:	0.852 (U)	
8/28/2020				2.34	0.002 (U)	
				۷.۵۲	0.066.41	
9/22/2020			4.4.0.0	0.575	0.268 (U)	
9/23/2020		4.14	1.14 (U)	0.575 (U)		
9/24/2020	0.684 (U)					
10/7/2020				1.81	0.819 (U)	
2/10/2021		3.65	2.46			
2/11/2021	0.678 (U)					
3/1/2021	0.412 (U)				0.846 (U)	

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/6/2022 4:40 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
3/2/2021				1.64	
3/3/2021		3.58	2.03		
8/19/2021	0.234 (U)	3.53			
8/20/2021					0.496 (U)
8/27/2021			1.34	1.83	
2/9/2022		3.28	1.91	1.74	0.926
2/10/2022	0.268 (U)				
8/31/2022	0.506 (U)	2.12	1.33	1.51	0.322 (U)

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016	ramit 47 (bg)	14110 44	14110 40	ravvi i vo (bg)	<0.1	<0.1
6/7/2016				<0.1	-0.1	30.1
7/27/2016				<0.1	<0.1	<0.1
	0.00 (1)			~0.1	~0.1	VI. I
8/30/2016	0.09 (J)	-0.1	0.44 (1)			
8/31/2016		<0.1	0.11 (J)			
9/16/2016				<0.1		<0.1
9/19/2016					<0.1	
11/3/2016				<0.1	<0.1	<0.1
11/14/2016	0.18 (J)		0.71			
11/15/2016		0.12 (J)				
1/11/2017				<0.1	<0.1	<0.1
2/24/2017	0.05 (J)					
2/27/2017			0.22 (J)			
2/28/2017		0.07 (J)				
3/1/2017					<0.1	<0.1
3/2/2017				<0.1		
4/26/2017					<0.1	<0.1
5/2/2017				<0.1		
5/8/2017	0.03 (J)	0.04 (J)				
5/9/2017			0.2 (J)			
6/28/2017					<0.1	<0.1
6/29/2017				<0.1		
7/11/2017	0.07 (J)					
7/13/2017		<0.1	0.11 (J)			
10/4/2017				<0.1		<0.1
10/5/2017					<0.1	
10/10/2017	<0.1	<0.1	0.39			
3/28/2018				<0.1	<0.1	<0.1
4/2/2018	<0.1					
4/3/2018			<0.1			
4/4/2018		<0.1				
6/7/2018					<0.1	
6/11/2018				<0.1		<0.1
9/19/2018	<0.1	<0.1	<0.1			
9/25/2018				<0.1	<0.1	<0.1
3/5/2019				<0.1		<0.1
3/6/2019					<0.1	
3/27/2019	0.081 (J)	<0.1	0.18 (J)			
4/2/2019	(-)			<0.1		
4/3/2019					<0.1	<0.1
8/20/2019	<0.1	<0.1	<0.1			
9/25/2019	-0.1	-0.1	-0.1	<0.1		
9/26/2019				-0.1	<0.1	<0.1
10/8/2019	0.034 (J)	<0.1			-0.1	30.1
10/9/2019	0.034 (3)	~0.1	<0.1			
			~0.1	~0.1	-0.1	<0.1
2/11/2020	c0 1	<0.1	0.076 (1)	<0.1	<0.1	<0.1
3/17/2020	<0.1	<0.1	0.076 (J)	-0.1	-0.1	-0.1
3/24/2020	~0.1	-0.1		<0.1	<0.1	<0.1
8/27/2020	<0.1	<0.1	0.07 (1)			
8/28/2020	-0.1	-0.4	0.07 (J)			
9/22/2020	<0.1	<0.1	0.000 (1)	-0.1	-0.1	.0.1
9/23/2020			0.082 (J)	<0.1	<0.1	<0.1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
2/9/2021					<0.1	<0.1
3/1/2021	<0.1	<0.1	0.073 (J)			
3/3/2021				<0.1	<0.1	<0.1
8/19/2021	<0.1	<0.1	0.075 (J)			
8/26/2021						<0.1
8/27/2021				<0.1	<0.1	
2/8/2022	<0.1					
2/9/2022		<0.1	0.063 (J)	<0.1	<0.1	<0.1
8/30/2022				<0.1	<0.1	<0.1
8/31/2022	0.065 (J)	0.055 (J)	0.1			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016	(13)	(*3)	(-3,	(13)	<0.1	0.11 (J)
6/7/2016	<0.1	<0.1				
7/26/2016					<0.1	0.05 (J)
7/27/2016	<0.1					()
7/28/2016		0.02 (J)				
9/14/2016		(-)			<0.1	0.04 (J)
9/19/2016	<0.1	0.02 (J)				
11/2/2016	<0.1	(0)			<0.1	<0.1
11/3/2016		<0.1				
1/12/2017						0.04 (J)
1/13/2017	<0.1	<0.1			<0.1	
3/6/2017	<0.1	<0.1			<0.1	
3/7/2017						<0.1
4/26/2017	<0.1	0.04 (J)				· · ·
5/1/2017	-0.1	0.04 (0)			<0.1	<0.1
6/27/2017					30.1	<0.1
6/29/2017	<0.1	<0.1			<0.1	NU. I
10/3/2017	-0.1	<0.1			-0.1	<0.1
10/3/2017	<0.1	5U. I				~V. I
10/4/2017	~U. I				<0.1	
10/3/2017			<0.1		~0.1	
10/11/2017			<0.1	-0.1		
			-0.1	<0.1		
11/20/2017			<0.1	<0.1		
1/10/2018			-0.1	<0.1		
1/11/2018			<0.1			
2/19/2018			0.00	<0.1		
2/20/2018	.0.4		0.23			
3/29/2018	<0.1	<0.1			<0.1	<0.1
4/3/2018		0.40 (1)	<0.1	<0.1		
6/5/2018	-0.4	0.13 (J)				0.45(1)
6/6/2018	<0.1					0.15 (J)
6/7/2018					<0.1	
6/28/2018			<0.1	<0.1		
8/7/2018			0.048 (J)	<0.1		
9/24/2018		2 (1)	<0.1	<0.1		
9/25/2018	<0.1	0 (J)			.0.4	0.4
9/26/2018					<0.1	<0.1
3/4/2019	.0.4	0.00			<0.1	0.19 (J)
3/5/2019	<0.1	0.32				
3/26/2019				<0.1		
3/27/2019			<0.1			
4/2/2019		0.12 (J)				
4/3/2019	<0.1				<0.1	0.047 (J)
8/21/2019			<0.1	<0.1		
9/24/2019		0.15 (J)				0.05 (J)
9/25/2019	<0.1				<0.1	
10/9/2019			<0.1	<0.1		
2/12/2020	<0.1	0.1 (J)	<0.1	<0.1	<0.1	<0.1
3/24/2020	<0.1	0.081 (J)		<0.1		<0.1
3/25/2020			<0.1		<0.1	
9/22/2020					<0.1	0.056 (J)
9/24/2020	<0.1	0.079 (J)	<0.1	<0.1		

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
2/8/2021						0.055 (J)
2/9/2021	<0.1	0.092 (J)			<0.1	
2/10/2021			<0.1	<0.1		
3/2/2021						<0.1
3/3/2021	<0.1				<0.1	
3/4/2021		0.091 (J)	<0.1	<0.1		
8/26/2021			0.063 (J)		<0.1	0.061 (J)
8/27/2021	<0.1					
9/1/2021		0.11				
9/3/2021				<0.1		
2/8/2022			0.052 (J)	<0.1		
2/9/2022	<0.1	0.1				
2/10/2022						0.055 (J)
2/11/2022					<0.1	
8/30/2022		0.1				0.085 (J)
8/31/2022	<0.1		0.065 (J)	0.05 (J)	0.061 (J)	

					,	
	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				0.12 (J)	<0.1	
6/2/2016	<0.1		<0.1			
7/25/2016					0.06 (J)	
7/26/2016	<0.1		0.02 (J)	0.08 (J)		
8/31/2016		0.14 (J)				
9/13/2016				0.11 (J)	<0.1	
9/14/2016	<0.1					0.08 (J)
9/15/2016			<0.1			
11/1/2016				<0.1		
11/2/2016			<0.1			
11/4/2016	<0.1				<0.1	<0.1
11/28/2016		0.12 (J)				
12/15/2016		(-)				0.06 (J)
1/10/2017			<0.1			
1/11/2017				0.05 (J)		
1/12/2017	<0.1			0.00 (0)		
1/16/2017	70.1				<0.1	0.1 (J)
2/22/2017		0.09 (J)			50. I	V. 1 (V)
		0.09 (3)		-0.1	-0.1	
3/2/2017				<0.1	<0.1	.0.4
3/3/2017	.0.4					<0.1
3/7/2017	<0.1					
3/8/2017			<0.1			
4/26/2017			<0.1			
4/27/2017				0.04 (J)	0.01 (J)	
4/28/2017						0.06 (J)
5/2/2017	<0.1					
5/8/2017		0.05 (J)				
5/26/2017						0.09 (J)
6/27/2017	<0.1			<0.1	<0.1	
6/28/2017						0.11 (J)
6/30/2017			<0.1			
7/17/2017		0.14 (J)				
10/3/2017	<0.1			<0.1	<0.1	<0.1
10/5/2017			<0.1			
10/16/2017		0.12 (J)				
2/19/2018		0.17				
3/27/2018			<0.1		<0.1	
3/28/2018						0.31
3/29/2018	<0.1			<0.1		
6/5/2018				0.055 (J)		
6/6/2018					<0.1	
6/7/2018	<0.1					0.11 (J)
6/8/2018			<0.1			
8/6/2018		0.087 (J)				
9/26/2018	<0.1	.,				
10/1/2018			<0.1	<0.1	<0.1	<0.1
2/25/2019		0.14 (J)				
2/26/2019		. (-)	<0.1			
2/27/2019			 *	0.052 (J)	<0.1	0.12 (J)
3/4/2019	<0.1			3.002 (0)	· · ·	(-)
3/28/2019	-0.1			0.036 (J)	<0.1	
3/29/2019			<0.1	J.000 (J)	-V. I	0.13 (J)
3/23/2013			~ 0.1			0.10 (0)

		YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
	4/3/2019	<0.1					
(6/12/2019		0.12 (J)				
:	8/19/2019		<0.1				
	9/24/2019	<0.1			0.063 (J)	<0.1	0.081 (J)
	9/25/2019			<0.1			
	10/8/2019		0.052 (J)				
:	2/10/2020				0.061 (J)	<0.1	
:	2/11/2020						0.075 (J)
:	2/12/2020	<0.1		<0.1			
;	3/17/2020		0.053 (J)				
;	3/18/2020			<0.1		<0.1	
;	3/19/2020				0.064 (J)		0.093 (J)
;	3/24/2020	<0.1					
:	8/26/2020		0.068 (J)				
9	9/22/2020	<0.1	0.058 (J)				
:	9/23/2020				0.058 (J)	<0.1	0.08 (J)
9	9/25/2020			<0.1			
:	2/8/2021	<0.1					
:	2/10/2021			<0.1			0.094 (J)
:	2/12/2021				0.068 (J)	<0.1	
;	3/2/2021	<0.1	0.073 (J)	<0.1			
;	3/3/2021				0.078 (J)	<0.1	0.085 (J)
;	8/19/2021			<0.1	0.074 (J)	<0.1	
:	8/20/2021		0.06 (J)				
;	8/26/2021	<0.1					
:	8/27/2021						0.12
:	2/8/2022		0.064 (J)				
:	2/9/2022				0.057 (J)	<0.1	0.094 (J)
:	2/10/2022	<0.1		<0.1			
:	8/30/2022	<0.1	0.086 (J)		0.093 (J)		0.12
:	8/31/2022			0.053 (J)		0.065 (J)	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			0.15 (J)		
6/2/2016	<0.1	0.62			
7/25/2016	0.06 (J)		0.14 (J)		
7/26/2016		0.49			
9/1/2016				0.08 (J)	
9/14/2016			0.18 (J)		
9/15/2016		0.54	,		
9/19/2016	<0.1				
11/1/2016	<0.1	0.68	<0.1		
11/16/2016	· · ·	0.00		0.04 (J)	
1/11/2017		0.49	0.09 (J)	0.0 1 (0)	
1/16/2017	<0.1	0.40	0.00 (0)		
2/21/2017	<0.1				
	~0.1			0.05 (1)	
2/27/2017			-0.1	0.05 (J)	
3/1/2017		0.40	<0.1		
3/2/2017		0.48	0.00 ("		
4/26/2017	<0.1	0.48	0.08 (J)		
5/8/2017				0.004 (J)	
6/28/2017		0.47	0.12 (J)		
6/30/2017	<0.1				
7/13/2017				0.35	
10/4/2017	<0.1	<0.1	<0.1		
10/11/2017				<0.1	
3/27/2018	<0.1				
3/28/2018		0.56	<0.1		
4/4/2018				<0.1	
6/7/2018		0.48			
6/8/2018			0.2 (J)		
6/11/2018	<0.1				
9/19/2018				<0.1	
10/1/2018		0.44	<0.1		
10/2/2018	<0.1				
2/26/2019	<0.1				
2/27/2019		0.53	0.13 (J)		
3/27/2019		0.00	0.10(0)	0.12 (J)	
4/1/2019	<0.1	0.45	0.1 (J)	0.12 (0)	
8/21/2019	70.1	0.40	0.1 (0)	<0.1	
9/25/2019	<0.1	0.46	0.171)	~ 0.1	
	~ 0.1	0.40	0.1 (J)	0.12 ())	
10/9/2019			0.00475	0.12 (J)	
2/11/2020	-0.4	0.4	0.094 (J)		
2/12/2020	<0.1	0.4			
3/17/2020				<0.1	
3/19/2020	<0.1	0.51	0.11 (J)		
7/6/2020				0.12	
8/27/2020					<0.1
8/28/2020				0.12	
9/22/2020					<0.1
9/23/2020		0.47	0.098 (J)	0.12	
9/24/2020	<0.1				
10/7/2020				0.13	<0.1
11/12/2020				0.084 (J)	<0.1
2/10/2021		0.43	<0.1		

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
2/11/2021	<0.1				
3/1/2021	<0.1				<0.1
3/2/2021				0.12	
3/3/2021		0.44	0.1		
8/19/2021	<0.1	0.47			
8/20/2021					<0.1
8/27/2021			0.12	0.13	
2/9/2022		0.43	0.097 (J)	0.12	<0.1
2/11/2022	<0.1				
8/31/2022	0.06 (J)	0.42	0.13	0.12	0.059 (J)

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	
6/6/2016	(0,			(3)	<0.001	<0.001	
6/7/2016				<0.001			
7/27/2016				<0.001	<0.001	<0.001	
8/30/2016	<0.001						
8/31/2016	0.001	<0.001	<0.001				
9/16/2016		10.001	-0.001	<0.001		<0.001	
9/19/2016				-0.001	<0.001	0.001	
11/3/2016				<0.001	<0.001	<0.001	
	<0.001		<0.001	<0.001	<0.001	V0.001	
11/14/2016	<0.001	<0.001	<0.001				
11/15/2016		<0.001		-0.001	-0.004	10.004	
1/11/2017				<0.001	<0.001	<0.001	
2/24/2017	<0.001						
2/27/2017			<0.001				
2/28/2017		<0.001					
3/1/2017					<0.001	<0.001	
3/2/2017				8E-05 (J)			
4/26/2017					<0.001	<0.001	
5/2/2017				<0.001			
5/8/2017	<0.001	<0.001					
5/9/2017			0.0001 (J)				
6/28/2017					<0.001	0.0001 (J)	
6/29/2017				8E-05 (J)			
7/11/2017	<0.001						
7/13/2017		<0.001	<0.001				
10/10/2017	<0.001	<0.001	<0.001				
3/28/2018				<0.001	<0.001	<0.001	
4/2/2018	<0.001						
4/3/2018			<0.001				
4/4/2018		<0.001					
9/19/2018	<0.001	<0.001	<0.001				
3/5/2019				<0.001		<0.001	
3/6/2019					<0.001		
4/2/2019				<0.001			
4/3/2019					<0.001	<0.001	
8/20/2019	<0.001	<0.001	<0.001		0.001	5.551	
9/25/2019	-0.001	10.001	-0.001	<0.001			
9/26/2019				-0.001	<0.001	<0.001	
2/11/2020				<0.001	<0.001	<0.001	
						5.4E-05 (J)	
3/24/2020	<0.001	<0.001		6.4E-05 (J)	7.1E-05 (J)	J.4L-0J (J)	
8/27/2020	<0.001	<0.001	z0.004				
8/28/2020	-0.004	-0.004	<0.001				
9/22/2020	<0.001	<0.001	.0.001		05.65.43	0.75.05 (1)	
9/23/2020			<0.001	4.1E-05 (J)	6E-05 (J)	9.7E-05 (J)	
2/9/2021					5E-05 (J)	9.4E-05 (J)	
3/1/2021	<0.001	<0.001	<0.001				
3/3/2021				<0.001	<0.001	7.6E-05 (J)	
8/19/2021	<0.001	<0.001	<0.001				
8/26/2021						<0.001	
8/27/2021				<0.001	<0.001		
2/8/2022	<0.001						
2/9/2022		<0.001	<0.001	<0.001	<0.001	<0.001	
8/30/2022				<0.001	<0.001	<0.001	

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Time Series

Constituent: Lead (mg/L) Analysis Run 10/6/2022 4:40 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

YGWA-47 (bg) YGWC-44 YGWC-45 YGWA-17S (bg) YGWA-18I (bg) YGWA-18S (bg) 8/31/2022 <0.001 <0.001 <0.001

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.001	<0.001
6/7/2016	<0.001	<0.001				
7/26/2016					<0.001	<0.001
7/27/2016	<0.001					
7/28/2016		<0.001				
9/14/2016					<0.001	<0.001
9/19/2016	<0.001	<0.001				
11/2/2016	0.0013 (J)				<0.001	<0.001
11/3/2016		<0.001				
1/12/2017						<0.001
1/13/2017	<0.001	<0.001			<0.001	
3/6/2017	<0.001	<0.001			<0.001	
3/7/2017						0.0001 (J)
4/26/2017	<0.001	<0.001				
5/1/2017					<0.001	<0.001
6/27/2017						<0.001
6/29/2017	<0.001	<0.001			<0.001	
10/11/2017			0.0001 (J)			
10/12/2017				9E-05 (J)		
11/20/2017			<0.001	<0.001		
1/10/2018				<0.001		
1/11/2018			0.0002 (J)			
2/19/2018				<0.001		
2/20/2018			<0.001			
3/29/2018	<0.001	<0.001			<0.001	<0.001
4/3/2018			<0.001	<0.001		
6/28/2018			<0.001	<0.001		
8/7/2018			<0.001	<0.001		
9/24/2018			<0.001	<0.001		
3/4/2019					<0.001	<0.001
3/5/2019	<0.001	<0.001				
4/2/2019		<0.001				
4/3/2019	<0.001				<0.001	<0.001
8/21/2019			<0.001	<0.001		
9/24/2019		<0.001				<0.001
9/25/2019	<0.001				<0.001	
10/9/2019			<0.001	<0.001		
2/12/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/24/2020	0.00011 (J)	<0.001		<0.001		5.4E-05 (J)
3/25/2020			5.1E-05 (J)		<0.001	
9/22/2020					<0.001	4.5E-05 (J)
9/24/2020	9.2E-05 (J)	4.6E-05 (J)	<0.001	3.8E-05 (J)		
2/8/2021						0.00013 (J)
2/9/2021	6.3E-05 (J)	<0.001			<0.001	
2/10/2021			<0.001	<0.001		
3/2/2021						5.1E-05 (J)
3/3/2021	4.5E-05 (J)				<0.001	
3/4/2021		<0.001	<0.001	<0.001		
8/26/2021			<0.001		<0.001	<0.001
8/27/2021	<0.001					
9/1/2021		<0.001				
9/3/2021				<0.001		

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
2/8/2022			<0.001	<0.001		
2/9/2022	<0.001	<0.001				
2/10/2022						<0.001
2/11/2022					<0.001	
8/30/2022		<0.001				<0.001
8/31/2022	<0.001		<0.001	<0.001	<0.001	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007	(0,	<0.001	(0,	(0)	(0,	(0)
9/11/2007		<0.001				
3/20/2008		<0.001				
8/27/2008		<0.001				
3/3/2009		<0.001				
11/18/2009		<0.001				
3/3/2010		<0.001				
9/8/2010		<0.001				
3/10/2011		<0.001				
9/8/2011		<0.001				
3/5/2012		<0.001				
9/10/2012		<0.001				
2/6/2013		<0.001				
8/12/2013		<0.001				
2/5/2014		<0.001				
8/5/2014		<0.001				
2/4/2015		<0.001				
8/3/2015		<0.001				
2/16/2016		<0.001				
6/1/2016		<0.001		0.00056 (J)	<0.001	
	<0.001		<0.001	0.00036 (3)	<0.001	
6/2/2016	<0.001		<0.001		<0.001	
7/25/2016	-0.001		-0.001	10.001	<0.001	
7/26/2016	<0.001	-0.001	<0.001	<0.001		
8/31/2016		<0.001		0.0001 (1)	-0.001	
9/13/2016	.0.004			0.0001 (J)	<0.001	0.004
9/14/2016	<0.001		-0.001			<0.001
9/15/2016			<0.001	.0.004		
11/1/2016				<0.001		
11/2/2016			<0.001			•••
11/4/2016	<0.001				<0.001	<0.001
11/28/2016		<0.001				0.004
12/15/2016						<0.001
1/10/2017			<0.001			
1/11/2017				<0.001		
1/12/2017	<0.001					
1/16/2017					<0.001	<0.001
2/22/2017		<0.001				
3/2/2017				0.0001 (J)	<0.001	
3/3/2017						<0.001
3/7/2017	7E-05 (J)					
3/8/2017			0.0001 (J)			
4/26/2017			<0.001			
4/27/2017				<0.001	<0.001	
4/28/2017						<0.001
5/2/2017	<0.001					
5/8/2017		<0.001				
5/26/2017						<0.001
6/27/2017	<0.001			<0.001	<0.001	
6/28/2017						<0.001
6/30/2017			<0.001			
7/17/2017		<0.001				
10/16/2017		<0.001				

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.001				
3/27/2018			<0.001		<0.001	
3/28/2018						<0.001
3/29/2018	<0.001			<0.001		
8/6/2018		<0.001				
2/25/2019		<0.001				
2/26/2019			<0.001			
2/27/2019				<0.001	<0.001	<0.001
3/4/2019	<0.001					
4/3/2019	<0.001					
6/12/2019		<0.001				
8/19/2019		<0.001				
9/24/2019	9E-05 (J)					
10/8/2019		<0.001				
2/10/2020				4.9E-05 (J)	<0.001	
2/11/2020						<0.001
2/12/2020	<0.001		<0.001			
3/17/2020		<0.001				
3/18/2020			<0.001		<0.001	
3/19/2020				0.00012 (J)		<0.001
3/24/2020	6.8E-05 (J)					
8/26/2020		<0.001				
9/22/2020	4.2E-05 (J)	0.0001 (J)				
9/23/2020				<0.001	0.00021 (J)	0.0011 (J)
9/25/2020			<0.001			
2/8/2021	3.7E-05 (J)					
2/10/2021			4.8E-05 (J)			0.00015 (J)
2/12/2021				4.4E-05 (J)	0.00038 (J)	
3/2/2021	9.2E-05 (J)	<0.001	<0.001			
3/3/2021				5.6E-05 (J)	<0.001	<0.001
8/19/2021			<0.001	<0.001	<0.001	
8/20/2021		<0.001				
8/26/2021	<0.001					
8/27/2021						<0.001
2/8/2022		<0.001				
2/9/2022				<0.001	<0.001	<0.001
2/10/2022	<0.001		<0.001			
8/30/2022	<0.001	<0.001		<0.001		<0.001
8/31/2022			<0.001		<0.001	

					,	
	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52	
6/1/2016			<0.001			
6/2/2016	<0.001	0.00056 (J)				
7/25/2016	<0.001		<0.001			
7/26/2016		0.0001 (J)				
9/1/2016		()		<0.001		
9/14/2016			<0.001			
9/15/2016		0.0002 (J)	0.001			
9/19/2016	<0.001	0.0002 (0)				
		<0.001	<0.001			
11/1/2016	<0.001	<0.001	<0.001	<0.001		
11/16/2016		-0.001	<0.001	<0.001		
1/11/2017		<0.001	<0.001			
1/16/2017	<0.001					
2/21/2017	<0.001					
2/27/2017				<0.001		
3/1/2017			<0.001			
3/2/2017		0.0002 (J)				
4/26/2017	<0.001	<0.001	<0.001			
5/8/2017				<0.001		
6/28/2017		<0.001	<0.001			
6/30/2017	<0.001					
7/13/2017				<0.001		
10/11/2017				<0.001		
3/27/2018	<0.001					
3/28/2018		<0.001	<0.001			
4/4/2018				<0.001		
9/19/2018				<0.001		
2/26/2019	<0.001					
2/27/2019		<0.001	<0.001			
8/21/2019				<0.001		
2/11/2020			<0.001	0.00		
2/11/2020	<0.001	<0.001	VO.001			
3/19/2020	<0.001	0.0001 0.00017 (J)	<0.001			
	~U.UU I	0.00017 (J)	~U.UU I	<0.001		
7/6/2020				<0.001	0.25.05.(1)	
8/27/2020					9.2E-05 (J)	
8/28/2020				<0.001		
9/22/2020					6E-05 (J)	
9/23/2020		<0.001	0.00015 (J)	<0.001		
9/24/2020	<0.001					
10/7/2020				<0.001	<0.001	
11/12/2020				4.4E-05 (J)	6.4E-05 (J)	
2/10/2021		<0.001	<0.001			
2/11/2021	4.6E-05 (J)					
3/1/2021	<0.001				8.7E-05 (J)	
3/2/2021				<0.001		
3/3/2021		<0.001	<0.001			
8/19/2021	<0.001	<0.001				
8/20/2021					<0.001	
8/27/2021			<0.001	<0.001		
2/9/2022		<0.001	<0.001	<0.001	<0.001	
2/11/2022	<0.001	-0.001	VO.001	-0.00 i	-0.001	
		<0.001	<0.001	<0.001	<0.001	
8/31/2022	<0.001	<0.001	<0.001	<0.001	~U.UU I	

,	S/S/2016	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
	6/6/2016				<0.03	0.0088	0.015
	6/7/2016				<0.03	0.0007 (1)	0.0040 (1)
	7/27/2016	0.0061 (1)			<0.03	0.0087 (J)	0.0049 (J)
	8/30/2016	0.0061 (J)	0.0115 (1)	0.014771			
	8/31/2016		0.0115 (J)	0.0147 (J)	-0.0 2		0.0031 (1)
	9/16/2016				<0.03	0.0042 (1)	0.0031 (J)
	9/19/2016				0.00	0.0043 (J)	0.0004 (1)
	11/3/2016				<0.03	<0.03	0.0021 (J)
	11/14/2016	0.0064 (J)		0.0175 (J)			
	11/15/2016		0.0148 (J)				
	1/11/2017				0.0035 (J)	0.0052 (J)	0.0025 (J)
	2/24/2017	0.0049 (J)					
	2/27/2017			0.0135 (J)			
	2/28/2017		0.0124 (J)				
	3/1/2017					0.0053 (J)	0.0029 (J)
	3/2/2017				<0.03		
	4/26/2017					0.0041 (J)	0.0019 (J)
,	5/2/2017				<0.03		
	5/8/2017	0.0053 (J)	0.0132 (J)				
	5/9/2017			0.0136 (J)			
(6/28/2017					0.0039 (J)	0.0016 (J)
(6/29/2017				<0.03		
-	7/11/2017	0.0051 (J)					
	7/13/2017		0.0124 (J)	0.0129 (J)			
	10/10/2017	0.0043 (J)	0.0123 (J)	0.015 (J)			
;	3/28/2018				<0.03	0.0041 (J)	0.0024 (J)
4	4/2/2018	0.0045 (J)					
4	4/3/2018			0.014 (J)			
4	4/4/2018		0.014 (J)				
(6/7/2018					0.0032 (J)	
(6/11/2018				<0.03		0.0014 (J)
9	9/19/2018	0.0043 (J)	0.013 (J)	0.012 (J)			
9	9/25/2018				<0.03	0.0036 (J)	0.0016 (J)
;	3/5/2019				<0.03		0.0031 (J)
;	3/6/2019					0.0033 (J)	
4	4/2/2019				<0.03		
4	4/3/2019					0.0035 (J)	0.0028 (J)
8	8/20/2019	0.0036 (J)	0.013 (J)	0.012 (J)			
9	9/25/2019				<0.03		
9	9/26/2019					0.0032 (J)	0.0029 (J)
	10/8/2019	0.0036 (J)	0.012 (J)				
	10/9/2019			0.012 (J)			
2	2/11/2020				<0.03	0.0033 (J)	0.005 (J)
;	3/17/2020	0.0046 (J)	0.013 (J)	0.014 (J)			
;	3/24/2020				0.0034 (J)	0.0033 (J)	0.0035 (J)
8	8/27/2020	0.0039 (J)	0.013 (J)				
8	8/28/2020			0.012 (J)			
9	9/22/2020	0.0036 (J)	0.013 (J)				
9	9/23/2020			0.012 (J)	<0.03	0.003 (J)	0.0022 (J)
2	2/9/2021					0.0031 (J)	0.0019 (J)
;	3/1/2021	0.0037 (J)	0.013 (J)	0.012 (J)			
;	3/3/2021				<0.03	0.0034 (J)	0.0021 (J)

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/19/2021	0.0038 (J)	0.013 (J)	0.012 (J)			
8/26/2021						0.0019 (J)
8/27/2021				<0.03	0.0032 (J)	
2/8/2022	0.0039 (J)					
2/9/2022		0.014 (J)	0.012 (J)	<0.03	0.0032 (J)	0.0015 (J)
8/30/2022				<0.03	0.0036 (J)	0.0014 (J)
8/31/2022	0.0037 (J)	0.013 (J)	0.012 (J)			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					0.013	0.0049 (J)
6/7/2016	<0.03	0.0055				
7/26/2016					0.0123 (J)	0.0063 (J)
7/27/2016	<0.03					
7/28/2016		0.0045 (J)				
9/14/2016					0.0137 (J)	0.0058 (J)
9/19/2016	<0.03	0.0054 (J)				
11/2/2016	<0.03				0.0136 (J)	0.0053 (J)
11/3/2016		<0.03				
1/12/2017						0.0054 (J)
1/13/2017	<0.03	0.0062 (J)			0.0121 (J)	
3/6/2017	<0.03	0.0059 (J)			0.0143 (J)	
3/7/2017						0.0056 (J)
4/26/2017	<0.03	0.0054 (J)				
5/1/2017					0.0132 (J)	0.0031 (J)
6/27/2017						0.0018 (J)
6/29/2017	<0.03	0.0047 (J)			0.0145 (J)	
10/11/2017			0.0018 (J)			
10/12/2017				<0.03		
11/20/2017			0.0018 (J)	<0.03		
1/10/2018				<0.03		
1/11/2018			0.0019 (J)			
2/19/2018				<0.03		
2/20/2018			<0.03			
3/29/2018	<0.03	0.0062 (J)			0.014 (J)	0.0058 (J)
4/3/2018			0.0022 (J)	<0.03		
6/5/2018		0.0061 (J)				
6/6/2018	<0.03					0.0068 (J)
6/7/2018					0.013 (J)	
6/28/2018			0.0026 (J)	<0.03		
8/7/2018			0.0024 (J)	<0.03		
9/24/2018			0.0022 (J)	<0.03		
9/25/2018	<0.03	0.0062 (J)				
9/26/2018					0.014 (J)	0.0065 (J)
3/4/2019					0.015 (J)	0.0065 (J)
3/5/2019	<0.03	0.0053 (J)				
4/2/2019		0.0051 (J)				
4/3/2019	<0.03				0.014 (J)	0.007 (J)
8/21/2019			0.0035 (J)	<0.03		
9/24/2019		0.0068 (J)				0.0065 (J)
9/25/2019	<0.03				0.014 (J)	
10/9/2019			0.0036 (J)	<0.03	.,	
2/12/2020	<0.03	0.0065 (J)	0.0041 (J)	<0.03	0.011 (J)	0.0066 (J)
3/24/2020	<0.03	0.0064 (J)	,	<0.03	. ,	0.0064 (J)
3/25/2020		. ,	0.0049 (J)		0.014 (J)	()
9/22/2020			. ,		0.013 (J)	0.0066 (J)
9/24/2020	<0.03	0.0069 (J)	0.0054 (J)	<0.03		• •
2/8/2021		` '	. ,			0.0063 (J)
2/9/2021	<0.03	0.006 (J)			0.011 (J)	(-)
2/10/2021		.,	0.0071 (J)	<0.03	. ,	
3/2/2021			(-)			0.0018 (J)
3/3/2021	<0.03				0.012 (J)	(-)
					` '	

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/4/2021		0.0062 (J)	0.0084 (J)	<0.03		
8/26/2021			0.0082 (J)		0.0094 (J)	0.0075 (J)
8/27/2021	<0.03					
9/1/2021		0.0057 (J)				
9/3/2021				<0.03		
2/8/2022			0.008 (J)	0.00076 (J)		
2/9/2022	0.00082 (J)	0.0061 (J)				
2/10/2022						0.0076 (J)
2/11/2022					0.012 (J)	
8/30/2022		0.0079 (J)				0.0068 (J)
8/31/2022	<0.03		0.0065 (J)	<0.03	0.013 (J)	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				0.015	<0.03	
6/2/2016	<0.03		<0.03			
7/25/2016					0.002 (J)	
7/26/2016	0.0027 (J)		<0.03	0.0135 (J)		
8/31/2016		<0.03				
9/13/2016				0.0112 (J)	<0.03	
9/14/2016	0.0029 (J)					0.004 (J)
9/15/2016			<0.03			
11/1/2016				0.0163 (J)		
11/2/2016			<0.03			
11/4/2016	<0.03				<0.03	<0.03
11/28/2016		<0.03				
12/15/2016						0.0026 (J)
1/10/2017			<0.03			
1/11/2017				0.0166 (J)		
1/12/2017	0.0032 (J)					
1/16/2017					0.0023 (J)	0.0023 (J)
2/22/2017		<0.03				
3/2/2017				0.0159 (J)	0.0025 (J)	
3/3/2017				. ,	. ,	0.0013 (J)
3/7/2017	0.0035 (J)					()
3/8/2017	. ,		<0.03			
4/26/2017			<0.03			
4/27/2017				0.0137 (J)	0.0027 (J)	
4/28/2017				(0)	(0)	0.0031 (J)
5/2/2017	0.0031 (J)					(-)
5/8/2017	0.000 (0)	0.0014 (J)				
5/26/2017		(0)				0.0038 (J)
6/27/2017	0.0029 (J)			0.0094 (J)	0.0024 (J)	C.0000 (c)
6/28/2017	0.0020 (0)			0.000 . (0)	0.002 (0)	0.0026 (J)
6/30/2017			<0.03			0.0020 (0)
7/17/2017		<0.03	0.00			
10/16/2017		0.0016 (J)				
2/19/2018		<0.03				
3/27/2018		-0.00	<0.03		0.0023 (J)	
3/28/2018			-0.00		0.0020 (0)	0.0025 (J)
3/29/2018	0.0034 (J)			0.0078 (J)		0.0023 (0)
6/5/2018	0.0034 (3)			0.0079 (J)		
6/6/2018				0.0070 (0)	0.0024 (J)	
6/7/2018	0.0032 (J)				0.0024 (3)	0.0017 (J)
6/8/2018	0.0032 (3)		<0.03			0.0017 (3)
8/6/2018		<0.03	V 0.03			
9/26/2018	0.0022 (1)	<0.03				
	0.0032 (J)		-0.00	0.0052 (1)	0.0000 (1)	-0.00
10/1/2018			<0.03 <0.03	0.0053 (J)	0.0023 (J)	<0.03
2/26/2019			<0.03	0.0002 (1)	0.0000 (1)	0.0044 (1)
2/27/2019	0.0022 (1)			0.0093 (J)	0.0023 (J)	0.0011 (J)
3/4/2019	0.0032 (J)			0.012 (1)	0.0022 / 15	
3/28/2019 3/29/2019			-0.02	0.013 (J)	0.0022 (J)	0.0016 (1)
	0.0035 (!)		<0.03			0.0016 (J)
4/3/2019	0.0035 (J)	0.0010 ();				
8/19/2019		0.0019 (J)		0.0040 / "	0.0000 / "	0.0044 (1)
9/24/2019	0.0031 (J)			0.0046 (J)	0.0023 (J)	0.0011 (J)

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
9/25/2019			<0.03			
10/8/2019		0.0015 (J)				
2/10/2020				0.011 (J)	0.0023 (J)	
2/11/2020						0.0012 (J)
2/12/2020	0.0032 (J)		<0.03			
3/17/2020		0.0017 (J)				
3/18/2020			<0.03		0.0024 (J)	
3/19/2020				0.013 (J)		0.0022 (J)
3/24/2020	0.0033 (J)					
8/26/2020		0.0032 (J)				
9/22/2020	0.0034 (J)	0.0029 (J)				
9/23/2020				0.014 (J)	0.0024 (J)	0.0016 (J)
9/25/2020			<0.03			
2/8/2021	0.0032 (J)					
2/10/2021			<0.03			0.0039 (J)
2/12/2021				0.01 (J)	0.0025 (J)	
3/2/2021	0.0031 (J)	0.0033 (J)	<0.03			
3/3/2021				0.012 (J)	0.0025 (J)	0.0016 (J)
8/19/2021			<0.03	0.013 (J)	0.0023 (J)	
8/20/2021		0.0028 (J)				
8/26/2021	0.0032 (J)					
8/27/2021						0.0058 (J)
2/8/2022		0.0031 (J)				
2/9/2022				0.013 (J)	0.0027 (J)	0.006 (J)
2/10/2022	0.0036 (J)		<0.03			
8/30/2022	0.0035 (J)	0.0025 (J)		0.013 (J)		0.0044 (J)
8/31/2022			<0.03		<0.03	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			0.01		
6/2/2016	<0.03	0.018			
7/25/2016	<0.03		0.0132 (J)		
7/26/2016		0.0221 (J)			
9/1/2016		. ,		0.0077 (J)	
9/14/2016			0.012 (J)	(-)	
9/15/2016		0.0197 (J)	.,		
9/19/2016	<0.03				
11/1/2016	<0.03	0.0194 (J)	0.0115 (J)		
11/16/2016	0.00	0.0101(0)	0.01.10 (0)	0.0075 (J)	
1/11/2017		0.0177 (J)	0.0085 (J)		
1/16/2017	<0.03	0.0177 (0)	0.0000 (0)		
2/21/2017	<0.03				
2/27/2017	~0.03			0.0084 (1)	
			0.011471)	0.0084 (J)	
3/1/2017		0.0185 (1)	0.0114 (J)		
3/2/2017	<0.03	0.0185 (J)	0.0002 (1)		
4/26/2017	<0.03	0.0183 (J)	0.0092 (J)	0.0007 / 15	
5/8/2017		0.0470 ())	0.0005 ("	0.0087 (J)	
6/28/2017	.0.00	0.0173 (J)	0.0085 (J)		
6/30/2017	<0.03				
7/13/2017				0.0104 (J)	
10/11/2017				0.0099 (J)	
3/27/2018	0.0011 (J)				
3/28/2018		0.02 (J)	0.013 (J)		
4/4/2018				0.012 (J)	
6/7/2018		0.02 (J)			
6/8/2018			0.012 (J)		
6/11/2018	0.0012 (J)				
9/19/2018				0.011 (J)	
10/1/2018		0.02 (J)	0.011 (J)		
10/2/2018	<0.03				
2/26/2019	0.0011 (J)				
2/27/2019		0.021 (J)	0.014 (J)		
4/1/2019	0.001 (J)	0.021 (J)	0.013 (J)		
8/21/2019				0.0076 (J)	
9/25/2019	0.0011 (J)	0.02 (J)	0.01 (J)		
10/9/2019				0.0078 (J)	
2/11/2020			0.013 (J)		
2/12/2020	0.0013 (J)	0.019 (J)			
3/17/2020				0.0071 (J)	
3/19/2020	0.0012 (J)	0.023 (J)	0.014 (J)		
7/6/2020				0.011 (J)	
8/27/2020					0.0048 (J)
8/28/2020				0.012 (J)	
9/22/2020					0.0046 (J)
9/23/2020		0.023 (J)	0.013 (J)	0.013 (J)	
9/24/2020	0.0011 (J)	• •	• •	• •	
10/7/2020	• •			0.011 (J)	0.0041 (J)
11/12/2020				0.014 (J)	0.0044 (J)
2/10/2021		0.023 (J)	0.015 (J)	\-'\	•
2/11/2021	0.0012 (J)	(-)	(-)		
3/1/2021	0.0012 (J)				0.0043 (J)
J J	3.00 (0)				(-)

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
3/2/2021				0.013 (J)	
3/3/2021		0.024 (J)	0.017 (J)		
8/19/2021	0.0012 (J)	0.023 (J)			
8/20/2021					0.0043 (J)
8/27/2021			0.026 (J)	0.014 (J)	
2/9/2022		0.026 (J)	0.021 (J)	0.014 (J)	0.0042 (J)
2/11/2022	0.0014 (J)				
8/31/2022	0.0012 (J)	0.021 (J)	0.022 (J)	0.015 (J)	0.0037 (J)

6/6/2016	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg) <0.0002	YGWA-18S (bg) <0.0002
6/7/2016				9.5E-05 (J)	~ 0.0002	<0.000Z
7/27/2016				<0.0002	<0.0002	<0.0002
8/30/2016	<0.0002			10.000Z	-0.000 <u>2</u>	10.000Z
8/31/2016	-0.000 <u>2</u>	<0.0002	<0.0002			
9/16/2016		<0.000Z	<0.000Z	<0.0002		<0.0002
9/19/2016				10.000Z	<0.0002	-0.000Z
11/3/2016				<0.0002	<0.0002	<0.0002
11/14/2016	<0.0002		<0.0002	~0.0002	~ 0.0002	~0.0002
11/15/2016	<0.000Z	<0.0002	<0.000Z			
1/11/2017		-0.000 <u>2</u>		<0.0002	<0.0002	<0.0002
2/24/2017	<0.0002			10.000Z	10.0002	-0.000Z
2/27/2017	-0.000 <u>2</u>		<0.0002			
2/28/2017		<0.0002	-0.000 <u>2</u>			
3/1/2017		-0.0002			<0.0002	<0.0002
3/2/2017				<0.0002	-0.000 <u>2</u>	10.000Z
4/26/2017				10.000Z	<0.0002	<0.0002
5/2/2017				<0.0002	-0.0002	10.0002
5/8/2017	<0.0002	<0.0002		-0.0002		
5/9/2017	-0.0002	-0.0002	<0.0002			
6/28/2017			0.0002		<0.0002	<0.0002
6/29/2017				<0.0002	0.0002	0.0002
7/11/2017	<0.0002			0.0002		
7/13/2017	-0.0002	<0.0002	<0.0002			
10/10/2017	<0.0002	<0.0002	<0.0002			
3/28/2018	0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002
4/2/2018	<0.0002					
4/3/2018			<0.0002			
4/4/2018		<0.0002				
9/19/2018	5.3E-05 (J)	6E-05 (J)	7.1E-05 (J)			
9/25/2018	. ,	()	. ,	<0.0002	<0.0002	<0.0002
3/5/2019				<0.0002		<0.0002
3/6/2019					<0.0002	
8/20/2019	<0.0002	<0.0002	<0.0002			
2/11/2020				<0.0002	<0.0002	<0.0002
8/27/2020	<0.0002	<0.0002				
8/28/2020			<0.0002			
2/9/2021					<0.0002	<0.0002
3/3/2021				<0.0002	<0.0002	<0.0002
8/19/2021	<0.0002	<0.0002	<0.0002			
8/26/2021						<0.0002
8/27/2021				<0.0002	<0.0002	
2/8/2022	<0.0002					
2/9/2022		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/30/2022				<0.0002	<0.0002	<0.0002
8/31/2022	<0.0002	<0.0002	<0.0002			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.0002	<0.0002
6/7/2016	9.6E-05 (J)	9.6E-05 (J)				
7/26/2016					<0.0002	<0.0002
7/27/2016	<0.0002					
7/28/2016		<0.0002				
9/14/2016					<0.0002	<0.0002
9/19/2016	<0.0002	<0.0002				
11/2/2016	<0.0002				<0.0002	<0.0002
11/3/2016		<0.0002				
1/12/2017						<0.0002
1/13/2017	<0.0002	<0.0002			<0.0002	
3/6/2017	<0.0002	<0.0002			<0.0002	
3/7/2017						<0.0002
4/26/2017	<0.0002	<0.0002				
5/1/2017					<0.0002	<0.0002
6/27/2017						<0.0002
6/29/2017	<0.0002	<0.0002			<0.0002	
10/11/2017			<0.0002			
10/12/2017				<0.0002		
11/20/2017			7E-05 (J)	8E-05 (J)		
1/10/2018				<0.0002		
1/11/2018			<0.0002			
2/19/2018				<0.0002		
2/20/2018			<0.0002			
3/29/2018	<0.0002	<0.0002			<0.0002	<0.0002
4/3/2018			<0.0002	<0.0002		
6/28/2018			<0.0002	3.6E-05 (J)		
8/7/2018			<0.0002	<0.0002		
9/24/2018			<0.0002	<0.0002		
9/25/2018	<0.0002	<0.0002				
9/26/2018					<0.0002	<0.0002
3/4/2019					<0.0002	<0.0002
3/5/2019	<0.0002	<0.0002				
8/21/2019			<0.0002	<0.0002		
2/12/2020	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
2/8/2021						<0.0002
2/9/2021	<0.0002	<0.0002			<0.0002	
2/10/2021			<0.0002	<0.0002		
3/2/2021						<0.0002
3/3/2021	<0.0002				<0.0002	
3/4/2021		<0.0002	<0.0002	<0.0002		
8/26/2021			<0.0002		<0.0002	<0.0002
8/27/2021	<0.0002					
9/1/2021		<0.0002				
9/3/2021				0.00012 (J)		
2/8/2022			<0.0002	0.00013 (J)		
2/9/2022	<0.0002	<0.0002		- (-)		
2/10/2022						<0.0002
2/11/2022					<0.0002	
8/30/2022		<0.0002				<0.0002
8/31/2022	<0.0002		<0.0002	0.00064	<0.0002	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007	,	<0.0002	,	,	/	
9/11/2007		<0.0002				
3/20/2008		<0.0002				
8/27/2008		<0.0002				
3/3/2009		<0.0002				
11/18/2009		<0.0002				
3/3/2010		<0.0002				
9/8/2010		<0.0002				
3/10/2011		<0.0002				
9/8/2011		<0.0002				
3/5/2012						
		<0.0002				
9/10/2012		<0.0002				
2/6/2013		<0.0002				
8/12/2013		<0.0002				
2/5/2014		<0.0002				
8/5/2014		<0.0002				
2/4/2015		<0.0002				
8/3/2015		<0.0002				
2/16/2016		1.36E-05 (J)				
6/1/2016				<0.0002	<0.0002	
6/2/2016	<0.0002		<0.0002			
7/25/2016					<0.0002	
7/26/2016	<0.0002		<0.0002	<0.0002		
8/31/2016		<0.0002				
9/13/2016				<0.0002	<0.0002	
9/14/2016	<0.0002					<0.0002
9/15/2016			<0.0002			
11/1/2016				<0.0002		
11/2/2016			<0.0002			
11/4/2016	<0.0002				<0.0002	<0.0002
11/28/2016		<0.0002				
12/15/2016						<0.0002
1/10/2017			<0.0002			
1/11/2017				<0.0002		
1/12/2017	<0.0002					
1/16/2017					<0.0002	<0.0002
2/22/2017		<0.0002				
3/2/2017				<0.0002	<0.0002	
3/3/2017						<0.0002
3/7/2017	<0.0002					
3/8/2017	5.555 <u>L</u>		<0.0002			
4/26/2017			<0.0002			
4/27/2017			50.0002	<0.0003	<0.0002	
				<0.0002	~U.UUUZ	<0.0002
4/28/2017	<0.0000					<0.0002
5/2/2017	<0.0002	-0.0000				
5/8/2017		<0.0002				
5/26/2017						<0.0002
6/27/2017	<0.0002			<0.0002	<0.0002	
6/28/2017						<0.0002
6/30/2017			<0.0002			
7/17/2017		<0.0002				
10/16/2017		< 0.0002				

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.0002				
3/27/2018			<0.0002		<0.0002	
3/28/2018						<0.0002
3/29/2018	<0.0002			<0.0002		
8/6/2018		<0.0002				
9/26/2018	<0.0002					
2/25/2019		7.4E-05 (J)				
2/26/2019			6.1E-05 (J)			
2/27/2019				5.1E-05 (J)	5.4E-05 (J)	<0.0002
3/4/2019	<0.0002					
3/28/2019				4E-05 (J)	<0.0002	
3/29/2019			<0.0002			<0.0002
6/12/2019		<0.0002				
8/19/2019		<0.0002				
9/24/2019				<0.0002	<0.0002	<0.0002
9/25/2019			<0.0002			
10/8/2019		<0.0002				
2/10/2020				<0.0002	<0.0002	
2/11/2020						<0.0002
2/12/2020	<0.0002		<0.0002			
5/6/2020		<0.0002				
8/26/2020		<0.0002				
9/22/2020		<0.0002				
2/8/2021	<0.0002					
2/10/2021			<0.0002			<0.0002
2/12/2021				<0.0002	<0.0002	
3/2/2021	<0.0002	<0.0002				
8/20/2021		<0.0002				
8/26/2021	<0.0002					
2/8/2022		<0.0002				
2/9/2022				<0.0002	<0.0002	<0.0002
2/10/2022	<0.0002		<0.0002			
8/30/2022	<0.0002	<0.0002		<0.0002		<0.0002
8/31/2022			<0.0002		<0.0002	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.0002		
6/2/2016	<0.0002	<0.0002			
7/25/2016	<0.0002		<0.0002		
7/26/2016		<0.0002			
9/1/2016				<0.0002	
9/14/2016			<0.0002		
9/15/2016		<0.0002			
9/19/2016	<0.0002				
11/1/2016	<0.0002	<0.0002	<0.0002		
11/16/2016				<0.0002	
1/11/2017		<0.0002	<0.0002		
1/16/2017	<0.0002				
2/21/2017	<0.0002				
2/27/2017				<0.0002	
3/1/2017			<0.0002		
3/2/2017		<0.0002			
4/26/2017	<0.0002	<0.0002	<0.0002		
5/8/2017				<0.0002	
6/28/2017		<0.0002	<0.0002		
6/30/2017	<0.0002				
7/13/2017				<0.0002	
10/11/2017				<0.0002	
3/27/2018	<0.0002				
3/28/2018		<0.0002	<0.0002		
4/4/2018				<0.0002	
9/19/2018				7E-05 (J)	
2/26/2019	6.8E-05 (J)				
2/27/2019		6.2E-05 (J)	6.1E-05 (J)		
4/1/2019	8.2E-05 (J)	9.6E-05 (J)	8.4E-05 (J)		
8/21/2019				<0.0002	
9/25/2019	<0.0002	<0.0002	<0.0002		
2/11/2020			<0.0002		
2/12/2020	<0.0002	<0.0002			
7/6/2020				<0.0002	
8/27/2020					<0.0002
8/28/2020				<0.0002	
11/12/2020				<0.0002	<0.0002
2/10/2021		<0.0002	<0.0002		
2/11/2021	<0.0002				
8/20/2021					<0.0002
8/27/2021				<0.0002	
2/9/2022		<0.0002	<0.0002	<0.0002	<0.0002
2/11/2022	<0.0002				
8/31/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.01	<0.01
6/7/2016				<0.01		
7/27/2016				<0.01	<0.01	<0.01
8/30/2016	<0.01					
8/31/2016		<0.01	0.0024 (J)			
9/16/2016				<0.01		<0.01
9/19/2016					<0.01	
11/3/2016				<0.01	<0.01	<0.01
11/14/2016	<0.01		<0.01			
11/15/2016		<0.01				
1/11/2017				<0.01	<0.01	<0.01
2/24/2017	<0.01					
2/27/2017			0.0018 (J)			
2/28/2017		0.0005 (J)				
3/1/2017					<0.01	<0.01
3/2/2017				<0.01		
4/26/2017					<0.01	<0.01
5/2/2017				<0.01		
5/8/2017	<0.01	<0.01				
5/9/2017			0.0015 (J)			
6/28/2017					<0.01	<0.01
6/29/2017				<0.01		
7/11/2017	<0.01					
7/13/2017		<0.01	0.0015 (J)			
10/10/2017	<0.01	<0.01	0.0015 (J)			
3/28/2018				<0.01	<0.01	<0.01
4/2/2018	<0.01					
4/3/2018			<0.01			
4/4/2018		<0.01				
9/19/2018	<0.01	<0.01	<0.01			
3/5/2019				<0.01		<0.01
3/6/2019					<0.01	
8/20/2019	<0.01	<0.01	0.0011 (J)			
10/8/2019	<0.01	<0.01				
10/9/2019			0.0012 (J)			
2/11/2020				<0.01	<0.01	<0.01
3/17/2020	<0.01	<0.01	0.0016 (J)			
3/24/2020				<0.01	<0.01	<0.01
8/27/2020	<0.01	<0.01				
8/28/2020			0.0013 (J)			
9/22/2020	<0.01	<0.01				
9/23/2020			0.0011 (J)	<0.01	<0.01	<0.01
2/9/2021					<0.01	<0.01
3/1/2021	<0.01	<0.01	0.0012 (J)			
3/3/2021				<0.01	<0.01	<0.01
8/19/2021	<0.01	<0.01	0.0012 (J)			
8/26/2021						<0.01
8/27/2021				<0.01	<0.01	
2/8/2022	<0.01					
2/9/2022		<0.01	0.0012 (J)	<0.01	<0.01	<0.01
8/30/2022				<0.01	<0.01	<0.01
8/31/2022	<0.01	<0.01	0.0011 (J)			
			• *			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.01	0.0035 (J)
6/7/2016	<0.01	<0.01				
7/26/2016					<0.01	0.0042 (J)
7/27/2016	<0.01					
7/28/2016		<0.01				
9/14/2016					<0.01	0.0041 (J)
9/19/2016	<0.01	<0.01				
11/2/2016	<0.01				<0.01	0.0039 (J)
11/3/2016		<0.01				
1/12/2017						0.0041 (J)
1/13/2017	<0.01	<0.01			<0.01	
3/6/2017	<0.01	0.0007 (J)			<0.01	
3/7/2017						0.0047 (J)
4/26/2017	<0.01	0.0008 (J)				
5/1/2017					<0.01	0.0045 (J)
6/27/2017						0.004 (J)
6/29/2017	<0.01	<0.01			<0.01	
10/11/2017			0.0094 (J)			
10/12/2017				<0.01		
11/20/2017			0.0081 (J)	<0.01		
1/10/2018			. ,	<0.01		
1/11/2018			0.0074 (J)			
2/19/2018				<0.01		
2/20/2018			<0.01	0.01		
3/29/2018	<0.01	<0.01	0.01		<0.01	<0.01
4/3/2018	-0.01	-0.01	0.006 (J)	<0.01	-0.01	-0.01
6/28/2018			0.005 (J)	<0.01		
8/7/2018			0.0045 (J)	<0.01		
9/24/2018			0.0045 (J)	<0.01		
3/4/2019			0.0000 (0)	40.01	<0.01	<0.01
3/5/2019	<0.01	<0.01			~0.01	~0.01
8/21/2019	~0.01	~0.01	0.0021 (1)	<0.01		
			0.0021 (J)			
10/9/2019	<0.01	<0.01	0.0018 (J)	<0.01	-0.01	0.0011 (1)
2/12/2020	<0.01	<0.01	0.0025 (J)	<0.01	<0.01	0.0011 (J)
3/24/2020	<0.01	<0.01	0.002 (1)	<0.01	-0.01	0.0011 (J)
3/25/2020			0.002 (J)		<0.01	0.00000 (1)
9/22/2020	<0.01	<0.01	0.0016 (1)	-0.01	<0.01	0.00099 (J)
9/24/2020	<0.01	<0.01	0.0016 (J)	<0.01		0.0011 (1)
2/8/2021	.0.04	.0.04			.0.04	0.0011 (J)
2/9/2021	<0.01	<0.01			<0.01	
2/10/2021			0.0013 (J)	<0.01		
3/2/2021						<0.01
3/3/2021	<0.01				<0.01	
3/4/2021		<0.01	0.0014 (J)	<0.01		
8/26/2021			0.0027 (J)		<0.01	0.001 (J)
8/27/2021	<0.01					
9/1/2021		<0.01				
9/3/2021				<0.01		
2/8/2022			0.0035 (J)	<0.01		
2/9/2022	<0.01	<0.01				
2/10/2022						0.00096 (J)
2/11/2022					<0.01	

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Time Series

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
8/30/2022		<0.01				0.00089 (J)
8/31/2022	<0.01		0.0036 (J)	<0.01	<0.01	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016	(0,	(0)	(0/	0.014 (J)	0.012 (J)	
6/2/2016	<0.01		<0.01			
7/25/2016					0.0098 (J)	
7/26/2016	<0.01		<0.01	0.0132		
8/31/2016		<0.01				
9/13/2016				0.0127	0.01 (J)	
9/14/2016	<0.01				. ,	0.0039 (J)
9/15/2016			<0.01			· · ·
11/1/2016				0.0092 (J)		
11/2/2016			<0.01	(-)		
11/4/2016	<0.01				0.01	0.0077 (J)
11/28/2016		<0.01				
12/15/2016						0.0066 (J)
1/10/2017			<0.01			
1/11/2017				0.0093 (J)		
1/12/2017	<0.01			0.0000 (0)		
1/16/2017	0.01				0.0086 (J)	0.0056 (J)
2/22/2017		<0.01			0.0000 (0)	(·)
3/2/2017		0.01		0.0099 (J)	0.01	
3/3/2017				0.0000 (0)	0.01	0.0049 (J)
3/7/2017	<0.01					3.33 /3 (3)
3/8/2017	-0.01		<0.01			
4/26/2017			<0.01			
4/27/2017			40.01	0.0103	0.0101	
4/28/2017				0.0103	0.0101	0.004 (J)
5/2/2017	<0.01					0.004 (0)
5/8/2017	~0.01	<0.01				
5/26/2017		40.01				0.0029 (J)
6/27/2017	<0.01			0.0097 (J)	0.0093 (J)	0.0023 (0)
6/28/2017	40.01			0.0037 (3)	0.0033 (0)	0.0036 (J)
6/30/2017			<0.01			0.0000 (0)
7/17/2017		<0.01	-0.01			
10/16/2017		<0.01				
2/19/2018		<0.01				
3/27/2018		40.01	<0.01		0.0074 (J)	
3/28/2018			-0.01		0.0074 (0)	0.0038 (J)
3/29/2018	<0.01			0.0076 (J)		0.0000 (0)
6/5/2018	-0.01			0.0092 (J)		
6/6/2018				0.0002 (0)	0.0073 (J)	
6/7/2018					0.0070 (0)	0.004 (J)
6/8/2018			<0.01			3.337 (3)
8/6/2018		<0.01	-0.01			
10/1/2018		-0.01	<0.01	0.0085 (J)	0.0076 (J)	0.0042 (J)
2/26/2019			<0.01	0.0000 (0)	0.0070 (0)	0.0072 (0)
2/27/2019			-0.01	0.0087 (J)	0.0078 (J)	0.0041 (J)
3/4/2019	<0.01			0.0007 (0)	0.0070 (0)	3.33 (8)
3/28/2019	5.51			0.0092 (J)	0.0082 (J)	
3/29/2019			<0.01	0.0002 (0)	0.0002 (0)	0.0041 (J)
8/19/2019		<0.01	-0.01			(2)
9/24/2019		-0.01		0.0072 (J)	0.0074 (J)	0.0054 (J)
9/25/2019			<0.01	0.0072 (0)	0.0074 (0)	
2/10/2020			-0.01	0.0087 (J)	0.0062 (J)	
2,10,2020				3.0007 (0)	3.0002 (0)	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/11/2020						0.0057 (J)
2/12/2020	<0.01		<0.01			
3/18/2020			<0.01		0.0056 (J)	
3/19/2020				0.0088 (J)		0.0046 (J)
3/24/2020	<0.01					
8/26/2020		<0.01				
9/22/2020	<0.01					
9/23/2020				0.008 (J)	0.0059 (J)	0.0071 (J)
9/25/2020			<0.01			
2/8/2021	<0.01					
2/10/2021			<0.01			0.0041 (J)
2/12/2021				0.008 (J)	0.0056 (J)	
3/2/2021	<0.01		<0.01			
3/3/2021				0.0088 (J)	0.0049 (J)	0.0074 (J)
8/19/2021			<0.01	0.0083 (J)	0.005 (J)	
8/20/2021		<0.01				
8/26/2021	<0.01					
8/27/2021						0.0048 (J)
2/8/2022		<0.01				
2/9/2022				0.0093 (J)	0.0055 (J)	0.0057 (J)
2/10/2022	<0.01		<0.01			
8/30/2022	<0.01	<0.01		0.0094 (J)		0.0068 (J)
8/31/2022			<0.01		0.0055 (J)	

					,	
	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52	
6/1/2016	. 3/	. 3,	0.0055 (J)			
6/2/2016	<0.01	0.0093 (J)	(-)			
7/25/2016	<0.01	(0)	0.0037 (J)			
7/26/2016	-0.01	0.0113	0.0007 (0)			
		0.0113		-0.01		
9/1/2016			0.0004 / "	<0.01		
9/14/2016			0.0034 (J)			
9/15/2016		0.0112				
9/19/2016	<0.01					
11/1/2016	<0.01	0.0099 (J)	0.0025 (J)			
11/16/2016				<0.01		
1/11/2017		0.0093 (J)	0.0033 (J)			
1/16/2017	<0.01					
2/21/2017	<0.01					
2/27/2017				<0.01		
3/1/2017			0.0044 (J)	'		
		0.0102	0.0044 (3)			
3/2/2017	-0.04	0.0103	0.0075 (1)			
4/26/2017	<0.01	0.01	0.0075 (J)			
5/8/2017				0.0008 (J)		
6/28/2017		0.0102	0.008 (J)			
6/30/2017	<0.01					
7/13/2017				0.0015 (J)		
10/11/2017				0.002 (J)		
3/27/2018	<0.01					
3/28/2018		0.011	0.0025 (J)			
4/4/2018			(-)	0.0021 (J)		
		0.011		0.0021(0)		
6/7/2018		0.011	0.004175			
6/8/2018	0.61		0.0041 (J)			
6/11/2018	<0.01					
9/19/2018				0.0039 (J)		
10/1/2018		0.012	0.0037 (J)			
10/2/2018	<0.01					
2/26/2019	<0.01					
2/27/2019		0.011	0.0027 (J)			
4/1/2019	<0.01	0.012	0.0021 (J)			
8/21/2019			.,	0.0012 (J)		
9/25/2019	<0.01	0.012	0.0087 (J)	(-)		
10/9/2019		2.0.2	3.333. (0)	0.0013 (J)		
			0.003 (1)	0.0013 (3)		
2/11/2020	-0.01	0.010	0.003 (J)			
2/12/2020	<0.01	0.013				
3/17/2020				0.0015 (J)		
3/19/2020	<0.01	0.013	0.0043 (J)			
7/6/2020				0.0026 (J)		
8/27/2020					<0.01	
8/28/2020				0.003 (J)		
9/22/2020				• ,	<0.01	
9/23/2020		0.012	0.01	0.0025 (J)		
9/24/2020	<0.01	U.U.E		3.3320 (0)		
	\U.U1			0.0024 (1)	<0.01	
10/7/2020				0.0024 (J)	<0.01	
11/12/2020				0.0019 (J)	<0.01	
2/10/2021		0.014	0.0038 (J)			
2/11/2021	<0.01					
3/1/2021	<0.01				<0.01	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
3/2/2021				0.0023 (J)	
3/3/2021		0.013	0.0036 (J)		
8/19/2021	<0.01	0.013			
8/20/2021					<0.01
8/27/2021			0.0099 (J)	0.0022 (J)	
2/9/2022		0.013	0.0087 (J)	0.0021 (J)	<0.01
2/11/2022	<0.01				
8/31/2022	<0.01	0.011	0.0068 (J)	0.0017 (J)	<0.01

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016	(0,			(0,	6.17	5.71
6/7/2016				5.62		
7/27/2016				5.59	6.14	5.46
8/30/2016	5.75					
8/31/2016		6.01	7.15			
9/16/2016				5.58		
9/19/2016					6.04	5.59
11/3/2016				5.59	5.97	5.39
11/14/2016	5.59		6.96			
11/15/2016		5.91				
1/11/2017				5.59	6.05	5.48
2/24/2017	5.49					
2/27/2017			6.79			
2/28/2017		5.85				
3/1/2017					5.94	5.41
3/2/2017				5.54		
4/26/2017					5.99	5.4
5/2/2017				5.47		
5/8/2017	5.58	5.91				
5/9/2017			6.9			
6/28/2017					6	5.36
6/29/2017				5.56		
7/11/2017	5.58					
7/13/2017		5.8	6.77			
10/4/2017				5.57		5.32
10/5/2017					6.11	
10/10/2017	5.49	5.76	6.9			
3/28/2018				5.59	6.1	5.34
4/2/2018	6.3 (O)					
4/3/2018			6.44			
4/4/2018		5.77				
6/7/2018					5.98	
6/11/2018				5.58		5.28
9/19/2018	5.48	5.77	6.47			
9/25/2018				5.59	5.81	4.86
3/5/2019				5.48		5.26
3/6/2019					5.99	
3/27/2019	5.83	6.1	7.18			
4/2/2019				5.74		
4/3/2019					6.29	5.47
8/20/2019	5.58	5.78	6.48			
9/25/2019				5.49		
9/26/2019					6.04	5.2
10/8/2019	5.59	5.84				
10/9/2019			6.55			
2/11/2020				5.58	6.07	5.3
3/17/2020	5.57	5.9	6.69			
3/24/2020				5.57	5.98	5.33
8/27/2020	4.88	5.75				
8/28/2020			6.84			
9/22/2020	5.46	5.53				
9/23/2020			6.57	5.58	6.01	5.29

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
2/9/2021					6.12	5.43
3/1/2021	5.48	5.76	6.5			
3/3/2021				5.52	5.89	5.31
8/19/2021	5.5	5.73	6.13			
8/26/2021						4.4
8/27/2021				5.27	5.4	
2/8/2022	5.4					
2/9/2022		5.73	6.15	5.53	5.98	5.28
8/30/2022				4.68	5.82	5.18
8/31/2022	5.32	5.77	6.56			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					6.36	7.67
6/7/2016	5.77	6.1				
7/26/2016					6.22	7.66
7/27/2016	5.79					
7/28/2016		6.12				
9/14/2016					6.23	7.6
9/19/2016	5.73	6.12				
11/2/2016	5.67				6.08	7.35
11/3/2016		6.07				
1/12/2017						7.49
1/13/2017	5.79	6.41			6.19	
3/6/2017	5.63	6.34			6.2	
3/7/2017						7.43
4/26/2017	5.66	6.32				
5/1/2017					6.21	7.22
6/27/2017						7.32
6/29/2017	5.85	6.47			6.21	
10/3/2017		6.56				7.48
10/4/2017	5.83					
10/5/2017					6.16	
10/11/2017			6.4			
10/12/2017				5.43		
11/20/2017			6.33	5.1		
1/10/2018				4.97		
1/11/2018			6.29			
2/19/2018				5.6		
2/20/2018			7.22			
3/29/2018	5.93	6.75			6.09	7.02
4/3/2018			6.87	5.84		
6/5/2018		6.09				
6/6/2018	5.86					7.43
6/7/2018					6.12	
6/28/2018			6.18	5.24		
8/7/2018			6.08	5.18		
9/24/2018			5.81	5.14		
9/25/2018	5.84	6.67				
9/26/2018					5.84	7.13
3/4/2019					6.18	7.46
3/5/2019	6.07	7.22				
3/26/2019				5.3		
3/27/2019			5.84			
4/2/2019		6.94				
4/3/2019	5.71				6.43	7.11
8/21/2019			5.96	5.26		
9/24/2019		6.87				6.93
9/25/2019	5.86				6.2	
10/9/2019			5.81	5.22		
2/12/2020	6	7.13	5.97	5.3	6.15	7.52
3/24/2020	5.86	6.35		5.29		7.34
3/25/2020			5.78		6.26	
9/22/2020					5.8	7.19
9/24/2020	5.8	6.7	5.7	5.43		

2/9/2021	YGWA-20S (bg) 5.86	YGWA-21I (bg) 6.95	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg) 6.06	YGWA-5D (bg)
2/10/2021			5.8	5.19		
3/2/2021						7.15
3/3/2021	5.89				6.21	
3/4/2021		6.8	5.54	5.23		
8/26/2021			6.91		5.82	7.16
8/27/2021	5.57					
9/1/2021		6.65				
9/3/2021				4.75		
2/8/2022			5.78	5.26		
2/9/2022	5.91	6.84				
2/10/2022						6.99
2/11/2022					5.95	
8/30/2022		6.58				7.4
8/31/2022	5.38		5.3	4.53	5.5	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
8/27/2008		6.53				
3/3/2009		6.35				
11/18/2009		6.47				
3/3/2010		6.53				
3/10/2011		5.83				
9/8/2011		5.69				
3/5/2012		6.27				
9/10/2012		6.23				
2/6/2013		7.56				
8/12/2013		6.68				
2/5/2014		6.32				
8/3/2015		6.13 (D)				
2/16/2016		5.64				
6/1/2016		0.04		7.46	6.33	
6/2/2016	5.75		5.46	7.40	0.55	
	3.73		3.40		6.21	
7/25/2016 7/26/2016	5.72		5.45	7.43	6.21	
	J. / Z		J. 4 J		6 16	7.41
9/13/2016	E 74			7.44	6.16	7.41
9/14/2016	5.74		5.45			
9/15/2016			5.45	7.04		
11/1/2016				7.24		
11/2/2016			5.41			
11/4/2016	5.61				6.29	7.12
11/28/2016		6.23				
12/15/2016						7.24
1/10/2017			5.37			
1/11/2017				7.3		
1/12/2017	5.71					
1/16/2017					6.29	7.24
2/22/2017		6.21				
3/2/2017				7.23	6.28	
3/3/2017						7.22
3/7/2017	5.66					
3/8/2017			5.41			
4/26/2017			5.02			
4/27/2017				6.99	6.09	
4/28/2017						7.21
5/2/2017	5.65					
5/8/2017		6.12				
5/26/2017						7.13
6/27/2017	5.7			6.87	6.21	
6/28/2017						7.06
6/30/2017			5.39			
7/17/2017		6.03				
10/3/2017	5.79			6.81	5.98	6.99
10/5/2017			5.49			
10/16/2017		6.12				
2/19/2018		6.13				
3/27/2018			5.47		6.25	
3/28/2018						7.3
3/29/2018	5.63			7.38		
6/5/2018				7.16		

6/6/2019	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/6/2018	F 63				6.17	7.20
6/7/2018	5.63		5.45			7.29
6/8/2018		0.04	5.45			
8/6/2018	5.00	6.01				
9/26/2018	5.63		F 20	6.0	5.0	7.07
10/1/2018		0.54	5.39	6.8	5.9	7.07
2/25/2019		6.51	5.40			
2/26/2019			5.46			
2/27/2019				6.84	5.8	7.27
3/4/2019	5.75					
3/28/2019				6.99	6.15	
3/29/2019			5.34			7.06
4/3/2019	5.63					
6/12/2019		6.3				
8/19/2019		6.23				
9/24/2019	5.6			7.07	6.23	7.01
9/25/2019			5.19			
10/8/2019		6.28				
2/10/2020				7.2	6.1	
2/11/2020						7.38
2/12/2020	5.83		5.48			
3/17/2020		6.14				
3/18/2020			5.38		6.19	
3/19/2020				7.03		7.22
3/24/2020	5.81					
5/6/2020		6.24				
8/26/2020		5.67				
9/22/2020	5.99	5.78				
9/23/2020				7.15	6.01	7.22
9/25/2020			5.44			
2/8/2021	5.67					
2/10/2021			5.35			7.29
2/12/2021				7.14	6.21	
3/2/2021	5.63	5.42	5.49			
3/3/2021				7.2	5.38	7.92
8/19/2021			7.32	6.32	6.38	
8/20/2021		5.86				
8/26/2021	5.51					
8/27/2021						7.14
2/8/2022		5.83				
2/9/2022				7.12	6.24	5.89
2/10/2022	5.14		4.5			
8/30/2022	5	5.39		7.2		7.04
8/31/2022			5.15		5.64	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52	
6/1/2016			7.72			
6/2/2016	5.75	7.84				
7/25/2016	5.82		7.74			
7/26/2016		7.88				
9/1/2016				6.19		
9/14/2016			7.65			
9/15/2016		7.74				
9/19/2016	5.78 (D)					
11/1/2016	5.62	7.75	7.7			
11/16/2016				6.05		
1/11/2017		7.66	7.53			
1/16/2017	5.72	7.00	7.00			
2/21/2017	5.67					
2/27/2017	3.07			6.01		
3/1/2017			7.42	0.01		
		7.60	7.42			
3/2/2017	E EC	7.68	7.4			
4/26/2017	5.56	7.45	7.4			
5/8/2017				6.1		
6/28/2017		7.65	7.5			
6/30/2017	5.72					
7/13/2017				6.07		
10/4/2017	5.87	7.49	7.45			
10/11/2017				5.93		
3/27/2018	5.83					
3/28/2018		7.91	7.74			
4/4/2018				6.01		
6/7/2018		7.69				
6/8/2018			7.64			
6/11/2018	5.69					
9/19/2018				6.09		
10/1/2018		7.39	7.47			
10/2/2018	5.39					
2/26/2019	5.77					
2/27/2019		7.55	7.54			
3/27/2019			- - -	6.2		
4/1/2019	5.62	7.87	7.74			
8/21/2019	J.U <u>Z</u>	7.07		5.82		
	5 60	7.64	7.47	J.0Z		
9/25/2019	5.69	7.64	7.47	F.06		
10/9/2019			7.00	5.96		
2/11/2020			7.09			
2/12/2020	5.8	7.83				
3/17/2020				5.99		
3/19/2020	6	7.65	7.31			
7/6/2020				6.89		
8/27/2020					5.8	
8/28/2020				7.05		
9/22/2020					5.91	
9/23/2020		7.57	7.37	6.81		
9/24/2020	5.67					
10/7/2020				7.06	5.87	
2/10/2021		7.81	7.58			
2/11/2021	5.73					

3/1/2021	YGWA-30I (bg) 5.78	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52 5.84
3/2/2021				6.72	
3/3/2021		8.39	8.23		
8/19/2021		5.34			
8/20/2021					6.71
8/27/2021			7.39	6.83	
2/9/2022		7.97	7.66	6.98	5.99
2/11/2022	5.59				
8/31/2022	5.87	7.65	7.49	6.87	5.58

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.005	<0.005
6/7/2016				0.001 (J)		
7/27/2016				0.0012 (J)	<0.005	<0.005
8/30/2016	0.0017 (J)					
8/31/2016		<0.005	<0.005			
9/16/2016				0.0015 (J)		<0.005
9/19/2016					<0.005	
11/3/2016				0.0015 (J)	<0.005	<0.005
11/14/2016	<0.005		<0.005			
11/15/2016		<0.005				
1/11/2017				0.0014 (J)	<0.005	<0.005
2/24/2017	0.0011 (J)					
2/27/2017			<0.005			
2/28/2017		<0.005				
3/1/2017					<0.005	<0.005
3/2/2017				0.0017 (J)		
4/26/2017					<0.005	<0.005
5/2/2017				<0.005		
5/8/2017	<0.005	<0.005				
5/9/2017			<0.005			
6/28/2017					<0.005	<0.005
6/29/2017				<0.005	0.000	0.000
7/11/2017	<0.005			10.000		
7/13/2017	-0.003	<0.005	<0.005			
10/10/2017	<0.005	<0.005	<0.005			
3/28/2018	~ 0.003	~0.003	~ 0.003	<0.005	<0.005	<0.005
4/2/2018	<0.005			<0.005	<0.005	<0.005
	~ 0.003		<0.00E			
4/3/2018		-0.005	<0.005			
4/4/2018		<0.005			-0.005	
6/7/2018				-0.005	<0.005	-0.005
6/11/2018	.0.005			<0.005		<0.005
9/19/2018	<0.005	<0.005	<0.005			
9/25/2018				<0.005	<0.005	<0.005
3/5/2019				<0.005		<0.005
3/6/2019					<0.005	
4/2/2019				<0.005		
4/3/2019					<0.005	<0.005
8/20/2019	<0.005	<0.005	<0.005			
9/25/2019				<0.005		
9/26/2019					<0.005	<0.005
2/11/2020				<0.005	<0.005	<0.005
3/24/2020				<0.005	<0.005	<0.005
8/27/2020	<0.005	<0.005				
8/28/2020			<0.005			
9/23/2020				<0.005	<0.005	<0.005
2/9/2021					<0.005	<0.005
3/3/2021				<0.005	<0.005	<0.005
8/19/2021	<0.005	<0.005	<0.005			
8/26/2021						<0.005
8/27/2021				<0.005	<0.005	
2/8/2022	<0.005					
2/9/2022		<0.005	<0.005	<0.005	<0.005	<0.005

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	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/30/2022				<0.005	<0.005	<0.005
8/31/2022	<0.005	<0.005	<0.005			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.005	<0.005
6/7/2016	<0.005	0.00048 (J)				
7/26/2016					0.0009 (J)	<0.005
7/27/2016	<0.005					
7/28/2016		<0.005				
9/14/2016					<0.005	<0.005
9/19/2016	<0.005	0.0014 (J)				
11/2/2016	<0.005				<0.005	<0.005
11/3/2016		<0.005				
1/12/2017						<0.005
1/13/2017	<0.005	<0.005			<0.005	
3/6/2017	<0.005	<0.005			<0.005	
3/7/2017						<0.005
4/26/2017	<0.005	<0.005				
5/1/2017					<0.005	<0.005
6/27/2017						<0.005
6/29/2017	<0.005	<0.005			<0.005	
10/11/2017			<0.005			
10/12/2017				<0.005		
11/20/2017			<0.005	0.0042 (J)		
1/10/2018				0.0043 (J)		
1/11/2018			<0.005			
2/19/2018				<0.005		
2/20/2018			<0.005			
3/29/2018	<0.005	<0.005			<0.005	<0.005
4/3/2018			<0.005	<0.005		
6/5/2018		<0.005				
6/6/2018	<0.005					<0.005
6/7/2018					<0.005	
6/28/2018			<0.005	0.0032 (J)		
8/7/2018			<0.005	0.0031 (J)		
9/24/2018			0.0015 (J)	0.0026 (J)		
9/25/2018	<0.005	<0.005	0.0010 (0)	0.0020 (0)		
9/26/2018	-0.000	-0.000			<0.005	<0.005
3/4/2019					<0.005	<0.005
3/5/2019	<0.005	<0.005			-0.000	10.000
4/2/2019	-0.000	<0.005				
4/3/2019	<0.005	10.000			<0.005	<0.005
8/21/2019	10.000		<0.005	0.0024 (J)	10.003	10.003
9/24/2019		<0.005	<0.003	0.0024 (3)		<0.005
	<0.005	<0.005			<0.005	<0.005
9/25/2019	<0.005		<0.005	0.0026 (J)	<0.005	
10/9/2019	<0.00E	<0.005			<0.00E	<0.005
2/12/2020	<0.005		<0.005	0.002 (J)	<0.005	
3/24/2020	<0.005	<0.005	10.005	0.002 (J)	-0.005	<0.005
3/25/2020			<0.005		<0.005	-0.005
9/22/2020	0.005	.0.005	.0.005	0.0040 (1)	<0.005	<0.005
9/24/2020	<0.005	<0.005	<0.005	0.0016 (J)		.0.005
2/8/2021	10.005	-0.005			-0.005	<0.005
2/9/2021	<0.005	<0.005	.0.005	0.005	<0.005	
2/10/2021			<0.005	<0.005		
3/2/2021						<0.005
3/3/2021	<0.005				0.0019 (J)	

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
3/4/2021		<0.005	<0.005	<0.005		
8/26/2021			<0.005		<0.005	<0.005
8/27/2021	<0.005					
9/1/2021		<0.005				
9/3/2021				<0.005		
2/8/2022			<0.005	0.0014 (J)		
2/9/2022	<0.005	<0.005				
2/10/2022						<0.005
2/11/2022					<0.005	
8/30/2022		<0.005				<0.005
8/31/2022	<0.005		<0.005	<0.005	<0.005	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.005				
9/11/2007		<0.005				
3/20/2008		<0.005				
8/27/2008		<0.005				
3/3/2009		<0.005				
11/18/2009		<0.005				
3/3/2010		<0.005				
9/8/2010		<0.005				
3/10/2011		<0.005				
9/8/2011		<0.005				
3/5/2012		<0.005				
9/10/2012		<0.005				
2/6/2013		<0.005				
8/12/2013		<0.005				
2/5/2014		<0.005				
8/5/2014		<0.005				
2/4/2015		<0.005				
8/3/2015		<0.005				
		<0.005				
2/16/2016 6/1/2016		~ 0.003		<0.005	<0.005	
	-0.005		0.0011 (1)	<0.005	<0.005	
6/2/2016	<0.005		0.0011 (J)		-0.005	
7/25/2016					<0.005	
7/26/2016	0.0009 (J)	.0.005	0.0016 (J)	<0.005		
8/31/2016		<0.005				
9/13/2016				<0.005	<0.005	
9/14/2016	<0.005		0.004470			<0.005
9/15/2016			0.0014 (J)			
11/1/2016				<0.005		
11/2/2016			<0.005			
11/4/2016	<0.005				<0.005	<0.005
11/28/2016		<0.005				
12/15/2016						<0.005
1/10/2017			0.0012 (J)			
1/11/2017				<0.005		
1/12/2017	<0.005					
1/16/2017					<0.005	<0.005
2/22/2017		<0.005				
3/2/2017				<0.005	<0.005	
3/3/2017						<0.005
3/7/2017	<0.005					
3/8/2017			<0.005			
4/26/2017			<0.005			
4/27/2017				<0.005	<0.005	
4/28/2017						<0.005
5/2/2017	<0.005					
5/8/2017		<0.005				
5/26/2017						<0.005
6/27/2017	<0.005			<0.005	<0.005	
6/28/2017						<0.005
6/30/2017			<0.005			
7/17/2017 10/16/2017		<0.005				

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.005				
3/27/2018			<0.005		<0.005	
3/28/2018						<0.005
3/29/2018	<0.005			<0.005		
6/7/2018	<0.005					
8/6/2018		<0.005				
9/26/2018	<0.005					
2/25/2019		<0.005				
2/26/2019			<0.005			
2/27/2019				<0.005	<0.005	<0.005
3/4/2019	<0.005					
3/28/2019				<0.005	<0.005	
3/29/2019			0.0019 (J)			<0.005
4/3/2019	<0.005					
6/12/2019		<0.005				
8/19/2019		<0.005				
9/24/2019	<0.005			<0.005	<0.005	<0.005
9/25/2019			<0.005			
10/8/2019		<0.005				
2/10/2020				<0.005	<0.005	
2/11/2020						<0.005
2/12/2020	<0.005		<0.005			
3/17/2020		<0.005				
3/18/2020			<0.005		<0.005	
3/19/2020				<0.005		<0.005
3/24/2020	<0.005					
8/26/2020		<0.005				
9/22/2020	<0.005	<0.005				
9/23/2020				<0.005	<0.005	<0.005
9/25/2020			<0.005			
2/8/2021	<0.005					
2/10/2021			<0.005			<0.005
2/12/2021				<0.005	<0.005	
3/2/2021	<0.005	<0.005	<0.005			
3/3/2021				<0.005	<0.005	<0.005
8/19/2021			<0.005	<0.005	<0.005	
8/20/2021		<0.005				
8/26/2021	<0.005					
8/27/2021						<0.005
2/8/2022		<0.005				
2/9/2022				<0.005	<0.005	<0.005
2/10/2022	<0.005		0.0014 (J)			
8/30/2022	<0.005	<0.005		<0.005		<0.005
8/31/2022			<0.005		<0.005	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.005		
6/2/2016	<0.005	<0.005			
7/25/2016	<0.005		<0.005		
7/26/2016		<0.005			
9/1/2016				<0.005	
9/14/2016			<0.005		
9/15/2016		<0.005			
9/19/2016	<0.005				
11/1/2016	<0.005	<0.005	<0.005		
11/16/2016				<0.005	
1/11/2017		<0.005	<0.005		
1/16/2017	<0.005				
2/21/2017	<0.005				
2/27/2017				<0.005	
3/1/2017			<0.005		
3/2/2017		<0.005			
4/26/2017	<0.005	<0.005	<0.005		
5/8/2017				<0.005	
6/28/2017		<0.005	<0.005		
6/30/2017	<0.005	0.000	0.000		
7/13/2017	5.555			<0.005	
10/11/2017				<0.005	
3/27/2018	<0.005			~0.003	
3/28/2018	~0.00 5	<0.005	<0.005		
4/4/2018		\0.003	~0.003	<0.005	
9/19/2018				<0.005	
	<0.005			C0000	
2/26/2019	<0.005	<0.005	<0.00E		
2/27/2019	<0.00E	<0.005	<0.005		
4/1/2019	<0.005	<0.005	<0.005	<0.00E	
8/21/2019	<0.00E	<0.00E	<0.00E	<0.005	
9/25/2019	<0.005	<0.005	<0.005		
2/11/2020	10.005	-0.005	<0.005		
2/12/2020	<0.005	<0.005	0.005		
3/19/2020	<0.005	<0.005	<0.005	.0.655	
7/6/2020				<0.005	
8/27/2020					<0.005
8/28/2020				<0.005	
9/23/2020		<0.005	<0.005		
9/24/2020	<0.005				
11/12/2020				<0.005	<0.005
2/10/2021		<0.005	<0.005		
2/11/2021	<0.005				
3/1/2021	<0.005				
3/3/2021		<0.005	<0.005		
8/19/2021	<0.005	<0.005			
8/20/2021					<0.005
8/27/2021			<0.005	<0.005	
2/9/2022		<0.005	<0.005	<0.005	<0.005
2/11/2022	<0.005				
8/31/2022	<0.005	<0.005	<0.005	<0.005	<0.005

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016	(-3)			(-9)	1.2	1.8
6/7/2016				4.4	1.2	
7/27/2016				4.7	1.7	1.9
	100			4.7	1.7	1.9
8/30/2016	160					
8/31/2016		150	190			
9/16/2016				4.8		1.7
9/19/2016					1.8	
11/3/2016				5.3	0.69 (J)	1.9
11/14/2016	150		200			
11/15/2016		150				
1/11/2017				5.2	<1	1.7
2/24/2017	120					
2/27/2017			190			
2/28/2017		130				
3/1/2017					1.8	<1
3/2/2017				5		
4/26/2017					1.6	1.9
5/2/2017				5		
5/8/2017	120	150				
5/9/2017			190			
6/28/2017					<1	<1
6/29/2017				5.2		
7/11/2017	110					
7/13/2017		150	180			
10/4/2017				5.3		1.7
10/5/2017					1.6	
10/10/2017	93	140	180			
4/2/2018	88.8					
4/3/2018			183			
4/4/2018		137				
6/7/2018					0.68 (J)	
6/11/2018				5.2	(-)	0.95 (J)
9/19/2018	75	137	192	0.2		C.55 (c)
9/25/2018	70	107	102	6.1	1	1.5
3/27/2019	65.9	146	188	0.1	•	1.0
4/2/2019	05.9	140	100	5.1		
				5.1	0.92 (1)	12
4/3/2019 9/25/2019				F F	0.82 (J)	1.3
				5.5	0.04 (1)	4
9/26/2019 10/8/2019	50.0	140			0.64 (J)	1
	52.3	142	100			
10/9/2019	74.0	101	183			
3/17/2020	71.6	121	161			•••
3/24/2020				5.4	<1	0.99 (J)
9/22/2020	51.5	130				
9/23/2020			170	5.1	0.53 (J)	1.1
3/1/2021	51.6	119	159			
3/3/2021				5.2	<1	1
8/19/2021	52.6	115	149			
8/26/2021						1.2
8/27/2021				5.3	0.59 (J)	
2/8/2022	50.9					
2/9/2022		121	164	4.8	0.51 (J)	1.1

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	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/30/2022				4.7	0.78 (J)	1.3
8/31/2022	48	130	177			

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					8	20
6/7/2016	<1	5.2				
7/26/2016					7.7	20
7/27/2016	0.08 (J)					
7/28/2016		5.1				
9/14/2016					7.5	19
9/19/2016	0.08 (J)	4.8				
11/2/2016	0.1 (J)				8.2	20
11/3/2016		5				
1/12/2017						19
1/13/2017	<1	4.3			8.1	
3/6/2017	<1	4.5			8	
3/7/2017						20
4/26/2017	<1	4.9				
5/1/2017					8.4	20
6/27/2017						18
6/29/2017	<1	5.5			9.2	
10/3/2017		5.8				16
10/4/2017	<1					
10/5/2017					9.6	
10/11/2017			20			
10/12/2017				17		
11/20/2017			24	71		
1/10/2018				66		
1/11/2018			23			
2/19/2018				57.2		
2/20/2018			20.6			
4/3/2018			24.5	49.4		
6/5/2018		6.1				
6/6/2018	0.049 (J)					8.3
6/7/2018					8.5	
6/28/2018			22	43.8		
8/7/2018			20.7	40.5		
9/24/2018			21.2	39.7		
9/25/2018	0.13 (J)	7				
9/26/2018					10.2	7.9
3/26/2019				34.3		
3/27/2019			17.7			
4/2/2019		3.8				
4/3/2019	0.12 (J)				8.5	7
9/24/2019		1				5.5
9/25/2019	<1				8.5	
10/9/2019			15	27.9		
3/24/2020	<1	3		25.2		5.9
3/25/2020			14.3		8.8	
9/22/2020					8.2	5.5
9/24/2020	<1	3.6	11.7	22.9		
3/2/2021						2.6
3/3/2021	<1				7.8	
3/4/2021		4.5	12	21.5		
8/26/2021			19.2		8.5	6
8/27/2021	<1					

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
9/1/2021		5				
9/3/2021				21.3		
2/8/2022			14.6	17.9		
2/9/2022	<1	3.9				
2/10/2022						4.9
2/11/2022					7.7	
8/30/2022		3.2				5.7
8/31/2022	<1		10.9	17.9	8	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				5	4.2	
6/2/2016	1.9		6.6			
7/25/2016					3.7	
7/26/2016	1.8		6.1	5.4		
8/31/2016		29				
9/13/2016				2.9	5.2	
9/14/2016	1.8					9.4
9/15/2016			6.1			
11/1/2016				3.9		
11/2/2016			6.3			
11/4/2016	2				5	13
11/28/2016		36				
12/15/2016						1.8
1/10/2017			5.9			
1/11/2017			0.0	3.7		
1/12/2017	1.9			0.7		
1/16/2017	1.5				7.9	11
2/22/2017		43			7.5	
3/2/2017		43		4.6	7.4	
3/3/2017				4.0	7.4	8.8
	2.1					0.0
3/7/2017	2.1		7			
3/8/2017			7			
4/26/2017			7	F.0	7.4	
4/27/2017				5.2	7.4	40
4/28/2017						10
5/2/2017	2					
5/8/2017		60				
5/26/2017						12
6/27/2017	2.1			5.9	6.4	
6/28/2017						11
6/30/2017			6.5			
7/17/2017		63				
10/3/2017	2.3			6.6	5.9	7.9
10/5/2017			7.9			
10/16/2017		62				
2/19/2018		64.6				
6/5/2018				6.4		
6/6/2018					4.4	
6/7/2018	2					8.8
6/8/2018			6.4			
8/6/2018		42.1				
9/26/2018	2.3					
10/1/2018			6.8	5.6	4	9.1
2/25/2019		42.1				
3/28/2019				8	4.3	
3/29/2019			7.3			9
4/3/2019	2.1					
6/12/2019		83.4				
9/24/2019	2.4			5.3	4.3	9.1
9/25/2019			6.6			
10/8/2019		128				
3/17/2020		98.6				

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/18/2020			8.1		5.3	
3/19/2020				10		12.4
3/24/2020	2.1					
9/22/2020	2.1	145				
9/23/2020				8.1	3.4	11.8
9/25/2020			6.1			
3/2/2021	2.3	156	6			
3/3/2021				9	4.4	10.6
8/19/2021			6.7	8.9	4.9	
8/20/2021		121				
8/26/2021	2.4					
8/27/2021						16.7
2/8/2022		107				
2/9/2022				9.3	5.1	18
2/10/2022	2.4		6.2			
8/30/2022	2.4	101		10.2		20.1
8/31/2022			5.8		4.8	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			12		
6/2/2016	1.3	5.8			
7/25/2016	1.2		8.4		
7/26/2016		6.7			
9/1/2016				770	
9/14/2016			8.6		
9/15/2016		6			
9/19/2016	1.2	-			
11/1/2016	1.3	4.9	8.9		
11/1/2016	1.0	7.0	5.5	780	
1/11/2017		4.5	8.6	700	
	_1	4.0	8.6		
1/16/2017	<1				
2/21/2017	1.4				
2/27/2017				650	
3/1/2017			9.3		
3/2/2017		4.4			
4/26/2017	1.4	5.1	11		
5/8/2017				770	
6/28/2017		5.4	12		
6/30/2017	<1				
7/13/2017				630	
10/4/2017	1.4	6.2	12		
10/11/2017				540	
4/4/2018				430	
6/7/2018		6.7			
6/8/2018			9.6		
6/11/2018	1.1				
9/19/2018				395	
10/1/2018		7.1	9.1		
10/1/2018	1	7.1	J. I		
	1			137	
3/27/2019	0.06 (1)	7.0	0.5	437	
4/1/2019	0.96 (J)	7.2	8.5		
9/25/2019	0.81 (J)	7	13.8		
10/9/2019				<1	
3/17/2020				439	
3/19/2020	1.6	9	12.9		
7/6/2020				385	
8/27/2020					144
8/28/2020				394	
9/22/2020					156
9/23/2020		6.9	16.8	430	
9/24/2020	0.69 (J)				
10/7/2020				427	156
11/12/2020				385	147
3/1/2021	0.88 (J)				139
3/2/2021	.,			387	
3/3/2021		7	9.6		
8/19/2021	1	7.5	5.0		
8/20/2021	•	7.0			122
8/27/2021			18.2	423	144
		7.0			110
2/9/2022	2.0	7.2	16	415	119
2/11/2022	2.8				

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	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
8/31/2022	1.1	6.9	13.9	459	122

6/6/2016	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg) <0.001	YGWA-18S (bg) <0.001
6/7/2016				<0.001		
7/27/2016				<0.001	<0.001	<0.001
8/30/2016	<0.001					
8/31/2016		<0.001	<0.001			
9/16/2016				<0.001		<0.001
9/19/2016					<0.001	
11/3/2016				<0.001	<0.001	<0.001
11/14/2016	<0.001		<0.001			
11/15/2016		<0.001				
1/11/2017				<0.001	<0.001	<0.001
2/24/2017	<0.001					
2/27/2017			<0.001			
2/28/2017		<0.001				
3/1/2017					<0.001	<0.001
3/2/2017				<0.001		
4/26/2017					<0.001	<0.001
5/2/2017				<0.001		
5/8/2017	<0.001	<0.001				
5/9/2017			<0.001			
6/28/2017					<0.001	<0.001
6/29/2017				<0.001		
7/11/2017	<0.001					
7/13/2017		<0.001	<0.001			
10/10/2017	<0.001	<0.001	<0.001			
3/28/2018				<0.001	<0.001	<0.001
4/2/2018	<0.001					
4/3/2018			<0.001			
4/4/2018		<0.001				
9/19/2018	<0.001	<0.001	<0.001			
3/5/2019				<0.001		<0.001
3/6/2019					<0.001	
4/2/2019				<0.001		
4/3/2019					<0.001	<0.001
8/20/2019	5.8E-05 (J)	<0.001	<0.001			
9/25/2019				<0.001		
9/26/2019					<0.001	<0.001
10/8/2019	8.4E-05 (J)	<0.001			0.001	0.001
10/9/2019	0.1= 00 (0)		<0.001			
2/11/2020			0.001	<0.001	<0.001	<0.001
3/17/2020	<0.001	8E-05 (J)	<0.001	0.001	0.001	0.001
3/24/2020	-0.001	0L 00 (0)	10.001	<0.001	<0.001	<0.001
8/27/2020	<0.001	<0.001		0.001	0.001	0.001
8/28/2020	40.001	40.001	<0.001			
9/23/2020			5.001	<0.001	<0.001	<0.001
2/9/2021				3.00 .	<0.001	<0.001
8/19/2021	<0.001	<0.001	<0.001		-0.001	-0.001
2/8/2022	<0.001	.0.001	.0.001			
2/9/2022	-5.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/30/2022		-0.001	-0.001	<0.001	<0.001	<0.001
8/31/2022	<0.001	<0.001	<0.001	-0.001	-0.001	-0.001
5/5 1/2022	-5.001	-0.001	-0.001			

					, , ,	
0/0/0010	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016	-0.001	-0.001			<0.001	<0.001
6/7/2016	<0.001	<0.001			-0.001	-0.004
7/26/2016	-0.001				<0.001	<0.001
7/27/2016	<0.001	0.004				
7/28/2016		<0.001			-0.001	-0.004
9/14/2016					<0.001	<0.001
9/19/2016	<0.001	<0.001				
11/2/2016	<0.001				<0.001	<0.001
11/3/2016		<0.001				
1/12/2017						<0.001
1/13/2017	<0.001	<0.001			<0.001	
3/6/2017	<0.001	<0.001			<0.001	
3/7/2017						<0.001
4/26/2017	<0.001	<0.001				
5/1/2017					<0.001	<0.001
6/27/2017						<0.001
6/29/2017	<0.001	<0.001			<0.001	
10/11/2017			<0.001			
10/12/2017				<0.001		
11/20/2017			<0.001	<0.001		
1/10/2018				<0.001		
1/11/2018			<0.001			
2/19/2018				<0.001		
2/20/2018			<0.001			
3/29/2018	<0.001	<0.001			<0.001	<0.001
4/3/2018			<0.001	<0.001		
6/28/2018			<0.001	<0.001		
8/7/2018			<0.001	<0.001		
9/24/2018			<0.001	<0.001		
9/25/2018		<0.001				
3/4/2019					<0.001	<0.001
3/5/2019	<0.001	<0.001				
4/2/2019		<0.001				
4/3/2019	<0.001				<0.001	<0.001
8/21/2019			<0.001	<0.001		
9/24/2019		<0.001				<0.001
9/25/2019	<0.001				<0.001	
2/12/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/24/2020	<0.001	<0.001		<0.001		<0.001
3/25/2020			<0.001		<0.001	
9/22/2020					<0.001	<0.001
9/24/2020	<0.001	<0.001	<0.001	<0.001		
2/8/2021						<0.001
2/9/2021	<0.001	<0.001			<0.001	
2/10/2021			<0.001	<0.001		
2/8/2022			<0.001	<0.001		
2/9/2022	<0.001	<0.001				
2/10/2022						<0.001
2/11/2022					<0.001	
8/30/2022		<0.001				<0.001
8/31/2022	<0.001		<0.001	<0.001	<0.001	

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007	, ,	<0.001			, 5,	, ,
9/11/2007		<0.001				
3/20/2008		<0.001				
8/27/2008		<0.001				
3/3/2009		<0.001				
11/18/2009		<0.001				
3/3/2010		<0.001				
9/8/2010		<0.001				
3/10/2011		<0.001				
9/8/2011		<0.001				
3/5/2012		<0.001				
9/10/2012		<0.001				
2/6/2013		<0.001				
8/12/2013		<0.001				
2/5/2014		<0.001				
8/5/2014		<0.001				
2/4/2015		<0.001				
2/16/2016		<0.001		<0.001	-0.001	
6/1/2016 6/2/2016	<0.001		<0.001	<0.001	<0.001	
	<0.001		<0.001		0.004	
7/25/2016					<0.001	
7/26/2016	<0.001		<0.001	<0.001		
8/31/2016		<0.001				
9/13/2016				<0.001	<0.001	
9/14/2016	<0.001					<0.001
9/15/2016			<0.001			
11/1/2016				<0.001		
11/2/2016			<0.001			
11/4/2016	<0.001				<0.001	<0.001
11/28/2016		<0.001				
12/15/2016						<0.001
1/10/2017			<0.001			
1/11/2017				<0.001		
1/12/2017	<0.001					
1/16/2017					<0.001	<0.001
2/22/2017		<0.001				
3/2/2017				<0.001	<0.001	
3/3/2017						<0.001
3/7/2017	<0.001					
3/8/2017			<0.001			
4/26/2017			<0.001			
4/27/2017				<0.001	<0.001	
4/28/2017						<0.001
5/2/2017	<0.001					
5/8/2017		6E-05 (J)				
5/26/2017						<0.001
6/27/2017	<0.001			<0.001	<0.001	
6/28/2017						<0.001
6/30/2017			<0.001			
7/17/2017		6E-05 (J)				
10/16/2017		7E-05 (J)				
2/19/2018		<0.001				
- -		• •				

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/27/2018			<0.001		<0.001	
3/28/2018						<0.001
3/29/2018	<0.001			<0.001		
8/6/2018		<0.001				
2/25/2019		<0.001				
2/26/2019			<0.001			
2/27/2019				<0.001	<0.001	<0.001
3/4/2019	<0.001					
4/3/2019	<0.001					
6/12/2019		<0.001				
8/19/2019		5.5E-05 (J)				
9/24/2019	<0.001					
10/8/2019		<0.001				
2/10/2020				<0.001	5.5E-05 (J)	
2/11/2020						<0.001
2/12/2020	<0.001		8.9E-05 (J)			
3/17/2020		<0.001				
3/18/2020			<0.001		<0.001	
3/19/2020				<0.001		<0.001
3/24/2020	<0.001					
8/26/2020		<0.001				
9/22/2020	<0.001	<0.001				
9/23/2020				<0.001	<0.001	<0.001
9/25/2020			<0.001			
2/8/2021	<0.001					
2/10/2021			<0.001			<0.001
2/12/2021				<0.001	<0.001	
3/2/2021		<0.001				
8/20/2021		<0.001				
2/8/2022		<0.001				
2/9/2022				<0.001	<0.001	<0.001
2/10/2022	<0.001		<0.001			
8/30/2022	<0.001	<0.001		<0.001		<0.001
8/31/2022			<0.001		<0.001	

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.001		
6/2/2016	<0.001	<0.001			
7/25/2016	<0.001		<0.001		
7/26/2016		0.0001 (J)			
9/1/2016				<0.001	
9/14/2016			<0.001		
9/15/2016		<0.001			
9/19/2016	<0.001				
11/1/2016	<0.001	<0.001	<0.001		
11/16/2016				<0.001	
1/11/2017		<0.001	<0.001		
1/16/2017	<0.001				
2/21/2017	<0.001				
2/27/2017				<0.001	
3/1/2017			<0.001		
3/2/2017		<0.001			
4/26/2017	<0.001	<0.001	<0.001		
5/8/2017				<0.001	
6/28/2017		<0.001	<0.001		
6/30/2017	<0.001				
7/13/2017				<0.001	
10/11/2017				<0.001	
3/27/2018	<0.001				
3/28/2018		<0.001	<0.001		
4/4/2018				<0.001	
9/19/2018				<0.001	
2/26/2019	<0.001				
2/27/2019		<0.001	<0.001		
8/21/2019				<0.001	
10/9/2019				<0.001	
2/11/2020			<0.001		
2/12/2020	<0.001	<0.001			
3/17/2020				<0.001	
3/19/2020	<0.001	<0.001	<0.001		
7/6/2020				7.3E-05 (J)	
8/27/2020				` '	<0.001
8/28/2020				<0.001	
9/23/2020		<0.001	0.00016 (J)		
9/24/2020	<0.001		.,		
11/12/2020				<0.001	<0.001
2/10/2021		<0.001	<0.001		
2/11/2021	<0.001				
8/20/2021					<0.001
8/27/2021				<0.001	
2/9/2022		<0.001	<0.001	<0.001	<0.001
2/11/2022	<0.001				
8/31/2022	<0.001	<0.001	<0.001	<0.001	<0.001
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Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:40 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016	(-3/			- (-3)	120	58
6/7/2016				28		
7/27/2016				74	94	35
8/30/2016	319					
8/31/2016	0.0	332	402			
9/16/2016		002		67		35
9/19/2016				07	92	35
11/3/2016				41	104	48
11/14/2016	280		445	41	104	40
11/15/2016	200	356	443			
1/11/2017		330		104	133	95
2/24/2017	162			104	133	50
2/27/2017	102		346			
		402	340			
2/28/2017		483			110	70
3/1/2017				77	119	79
3/2/2017				77	100	20
4/26/2017				110	162	36
5/2/2017				142		
5/8/2017	194	296	000			
5/9/2017			388			_
6/28/2017					98	45
6/29/2017				53		
7/11/2017	193					
7/13/2017		345	433			
10/4/2017				61		45
10/5/2017					104	
10/10/2017	175	311	396			
4/2/2018	192					
4/3/2018			418			
4/4/2018		313				
6/7/2018					68	
6/11/2018				70		74
9/19/2018	186	326	413			
9/25/2018				86	109	63
3/27/2019	170	302	383			
4/2/2019				72		
4/3/2019					89	63
9/25/2019				81		
9/26/2019					126	72
10/8/2019	172	324				
10/9/2019			432			
3/17/2020	165	283	391			
3/24/2020				71	91	59
9/22/2020	141	294				
9/23/2020			404	99	103	81
3/1/2021	145	276	379			
3/3/2021				57	95	37
8/19/2021	134	333	391			
8/26/2021						31
8/27/2021				93	112	
2/8/2022	151					
2/9/2022		311	400	81	103	60

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Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:40 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

		YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
8/30/20)22				81	100	52
8/31/20)22	116	343	445			

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:40 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016			, -,	, ,,	96	160
6/7/2016	38	60				
7/26/2016					92	177
7/27/2016	74					
7/28/2016		81				
9/14/2016					102	187
9/19/2016	45	68				
11/2/2016	53				115	181
11/3/2016		61				
1/12/2017		0.				202
1/13/2017	46	76			67	
3/6/2017	164	167			159	
3/7/2017	104	107			100	257
4/26/2017	34	50				207
5/1/2017	0.1	00			107	165
6/27/2017					107	189
6/29/2017	68	94			79	100
10/3/2017	00	149			75	170
10/4/2017	54	149				170
10/5/2017	34				95	
10/11/2017			68		33	
10/11/2017			08	74		
11/20/2017			139	179		
1/10/2018			139	140		
1/11/2018			153	140		
			155	110		
2/19/2018 2/20/2018			87	119		
4/3/2018			85	106		
6/5/2018		109	65	100		
	70	109				151
6/6/2018 6/7/2018	79				90	151
6/28/2018			88	112	90	
8/7/2018			89	103		
				107		
9/24/2018 9/25/2018	73	122	82	107		
9/26/2018	73	122			116	144
3/26/2019				90	110	144
3/27/2019			75	90		
4/2/2019		134	75			
4/3/2019	57	134			111	142
	5/	157			111	
9/24/2019 9/25/2019	75	157			117	129
	75		119	98	117	
10/9/2019	70		119			120
3/24/2020	76	117	150	84	140	139
3/25/2020			158		146	104
9/22/2020	60	112	170	77	83	104
9/24/2020	69	113	170	77		50
3/2/2021	F2				80	52
3/3/2021	53	110	160	E-7	80	
3/4/2021		110	168	57	02	122
8/26/2021	67		249		93	123
8/27/2021	67					

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:40 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
9/1/2021		137				
9/3/2021				88		
2/8/2022			248	93		
2/9/2022	72	131				
2/10/2022						127
2/11/2022					102	
8/30/2022		122				148
8/31/2022	62		242	92	92	

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:40 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				120	54	
6/2/2016	66		46			
7/25/2016					48	
7/26/2016	78		54	94		
8/31/2016		209				
9/13/2016				105	67	
9/14/2016	73					152
9/15/2016			54			
11/1/2016				44		
11/2/2016			71			
11/4/2016	75				60	148
11/28/2016		102				
12/15/2016						191
1/10/2017			45			
1/11/2017				107		
1/12/2017	86			107		
1/16/2017	00				65	180
2/22/2017		164				
3/2/2017		104		98	61	
3/3/2017				96	01	156
3/7/2017	108					130
	106		170			
3/8/2017			178			
4/26/2017			52	110	24	
4/27/2017				116	31	400
4/28/2017						130
5/2/2017	103	445				
5/8/2017		145				000
5/26/2017						223
6/27/2017	73			89	42	
6/28/2017						166
6/30/2017			45			
7/17/2017		185				
10/3/2017	89			119	58	153
10/5/2017			40			
10/16/2017		218				
2/19/2018		173				
6/5/2018				127		
6/6/2018					96	
6/7/2018	142					146
6/8/2018			114			
8/6/2018		158				
9/26/2018	86					
10/1/2018			50	117	60	155
2/25/2019		92				
3/28/2019				87	87	
3/29/2019			63			150
4/3/2019	83					
6/12/2019		226				
9/24/2019	79			124	54	146
9/25/2019			64			
10/8/2019		276				
3/17/2020		185				

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:40 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

3/18/2020	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/19/2020				116		148
3/24/2020	68					
9/22/2020	75	281				
9/23/2020				108	15	161
9/25/2020			54			
3/2/2021	67	296	67			
3/3/2021				99	39	138
8/19/2021			54	105	44	
8/20/2021		254				
8/26/2021	86					
8/27/2021						150
2/8/2022		283				
2/9/2022				105	57	156
2/10/2022	77		56			
8/30/2022	86	244		116		153
8/31/2022			51		46	

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:40 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

						,
6/2/2016 36 130 135 135 1240 1		YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
7/25/2016 50 135 7/25/2016 141 1240 9/1/2016 127 1240 9/1/2016 153 127 9/19/2016 35 11/1/2016 <25	6/1/2016			150		
7/28(2016 141 9/1/2016 127 1240 9/1/2016 153 9/19/2016 35 11/1/2016 25 92 75 11/1/2016 153 11/1/2016 159 148 1220 11/1/2017 159 148 1220 11/1/2017 47 2/21/2017 25 2/27/2017 182 3/2/2017 117 4/26(2017 55 181 92 5/8/2017 1160 6/26(2017 55 181 92 5/8/2017 1160 6/26(2017 42 7/13/2017 182 3/2/2017 169 126 6/30/2017 42 7/13/2017 31 141 147 147 10/1/2017 31 141 147 147 14/2018 14/2018 158 6/11/2018 59 95 6/8/2018 57 3/27/2019 57 3/27/2019 57 3/27/2019 57 3/27/2019 57 3/27/2019 57 3/27/2019 57 3/27/2019 51 157 159 159 10/1/2019 54 149 19 (/) 9/25/2019 51 157 159 159 10/1/2019 3/27/2020 47 146 148 48 49 3/27/2020 47 146 148 48 49 3/27/2020 47 146 148 48 49 3/27/2020 51 10/1/2020 51 157 159 159 157/2020 51 157 159 159 157/2020 51 157 159 3/27/2020 51 157 159 3/27/2020 51 157 159 3/27/2020 51 157 159 3/27/2020 51 157 155 3/2 3/27/2020 51 10/1/2	6/2/2016	36	130			
9/1/2016 127 9/14/2016 153 9/15/2016 35 11/16/2016 35 11/16/2016 25 92 75 11/16/2017 47 159 148 1/11/2017 47 22/12/2017 25 2/27/2017 47 22/12/2017 1060 3/1/2017 117 462/2017 55 181 92 5/8/2017 169 126 1160 169 <td>7/25/2016</td> <td>50</td> <td></td> <td>135</td> <td></td> <td></td>	7/25/2016	50		135		
9/14/2016 153 9/13/2016 35 11/1/2016 <25 92 75 11/1/2016 <25 92 75 11/1/2016 <25 92 75 11/1/2016 <47 159 148 11/1/2017 47 2/21/2017 <25 2/27/2017 1060 3/1/2017 55 181 92 1160 6/28/2017 55 181 92 5/8/2017 169 126 6/28/2017 42 7/13/2017 31 141 147 10/11/2017 31 141 147 10/11/2017 31 141 147 10/11/2018 95 6/8/2018 158 6/11/2018 59 9/19/2018 702 10/12/2018 57 3/27/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 159 10/9/2019 51 157 155 832 9/2/2/2020 793 3/17/2020	7/26/2016		141			
9/15/2016	9/1/2016				1240	
11/1/2016 35	9/14/2016			127		
11/1/2016 <25 92 75 11/1/2017 159 148 11/1/2017 47 2/21/2017 <25 2/27/2017 1060 3/1/2017 55 181 92 5/8/2017 169 126 6/28/2017 55 181 92 5/8/2017 169 126 6/28/2017 31 141 147 10/1/2017 31 141 147 10/1/2017 31 141 147 10/1/2018 95 6/8/2018 59 9/19/2018 57 3/27/2019 54 149 19 (J) 9/25/2019 51 157 159 10/9/2019 54 149 19 (J) 9/25/2019 51 157 159 10/9/2019 47 146 148 8/28/2020 47 146 148 8/28/2020 51 157 155 832 9/22/2020 51 157 155 832 9/22/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2020 51 157 155 832 9/23/2021 37 155 832 9/23/2021 50 144 8/29/2021 50 144 8/29/2022 51 55 810 8/29/2022 51 55 810 8/29/2022 51 55 810 8/29/2022 51 55 810 8/29/2022 51 55 810 8/29/2022 51 55 810 8/29/2022 51 55 810 8/29/2022 51 55 810 8/29/2022 51 55 810 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 55 510 8/29/2022 51 52 52 8/29/2022 51 52 52 8/29/2022 51 52 52 8/29/2022 51 52 52 8/29/202	9/15/2016		153			
11/16/2016 159	9/19/2016	35				
11/16/2016 159			92	75		
1/11/2017					1220	
1116/2017			159	148		
2/21/2017 <25		47				
2/27/2017						
31/12017		-			1060	
3/2/2017				182		
4/26/2017 55 181 92			117	102		
5/8/2017		55		92		
6/28/2017 42 6/30/2017 42 7/13/2017 996 104/2017 31 141 147 10/12017 835 44/2018 6/7/2018 95 158 6/8/2018 158 702 6/11/2018 59 702 9/19/2018 702 702 10/1/2018 165 138 10/2/2018 57 839 3/27/2019 641 44 4/1/2019 54 149 19 (J) 9/2/5/2019 51 157 159 10/9/2019 809 31/7/2020 3/17/2020 733 349 8/2/1/2020 47 146 148 7/6/2020 793 838 9/2/2/2020 157 155 832 9/2/2/2020 51 760 317 3/1/2021 23 782 349 8/2/2020 157 155 832 9/2/2020 760 317 3/1/2021 782		55	101	32	1160	
6/30/2017 42			160	126	1100	
7/13/2017 31 141 147 10/11/2017 31 141 147 10/11/2018 95 1470 6/7/2018 95 6/8/2018 6/8/2018 158 702 6/11/2018 59 702 919/2018 165 138 10/1/2018 57 38 3/27/2019 641 4 4/1/2019 54 149 19 (J) 9/25/2019 51 157 159 10/9/2019 73 733 3/17/2020 733 3/19/2020 8/27/2020 47 146 148 7/6/2020 793 82 8/27/2020 157 155 832 9/22/2020 51 157 155 832 9/24/2020 51 760 317 3/1/2021 23 760 317 3/1/2021 23 760 317 3/1/2021 50 144 4 8/20/2021 137 111 8 <td></td> <td>42</td> <td>109</td> <td>120</td> <td></td> <td></td>		42	109	120		
10/4/2017 31		42			000	
10/11/2017					996	
4/4/2018		31	141	147		
6/7/2018 95 6/8/2018 59 9/19/2018 702 10/1/2018 165 138 10/2/2018 57 3/27/2019 641 4/1/2019 54 149 19 (J) 9/25/2019 51 157 159 10/9/2019 809 3/17/2020 3/17/2020 47 146 148 7/6/2020 793 349 8/27/2020 157 155 832 9/22/2020 157 155 832 9/24/2020 51 107/2020 842 336 11/1/2/2020 51 760 317 3/1/2021 23 760 317 3/1/2021 23 762 265 3/2/2021 70 144 44 8/2/20201 50 144 44 8/2/202021 50 144 44 45 466 278						
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6/11/2018 59 9/19/2018 165 138 10/1/2018 57 641 3/27/2019 641 641 4/11/2019 54 149 19 (J) 9/25/2019 51 157 159 10/9/2019 809 3/17/2020 3/19/2020 47 146 148 7/6/2020 793 349 8/28/2020 828/2020 838 9/22/2020 9/23/2020 157 155 832 9/24/2020 51 157 155 832 9/24/2020 51 4842 336 11/12/2020 842 336 11/12/2020 3/1/2021 23 265 760 317 3/1/2021 23 782 782 3/3/2021 137 111 289 8/20/2021 50 144 48 8/20/2021 154 145 846 278			95			
9/19/2018				158		
10/1/2018 165 138 10/2/2018 57 3/27/2019		59				
10/2/2018 57 3/27/2019 54 149 19 (J) 9/25/2019 51 157 159 10/9/2019 809 733 3/17/2020 47 146 148 7/6/2020 47 146 148 8/27/2020 793 349 8/28/2020 838 9/22/2020 9/23/2020 157 155 832 9/24/2020 51 842 336 11/12/2020 51 760 317 3/1/2021 23 782 265 3/2/2021 137 111 782 3/3/2021 137 111 289 8/27/2021 50 144 289 8/27/2021 154 145 846 278					702	
3/27/2019 54 149 19 (J) 9/25/2019 51 157 159 10/9/2019 809 733 3/17/2020 47 146 148 7/6/2020 793 349 8/27/2020 838 9/22/2020 9/23/2020 157 155 832 9/24/2020 51 842 336 11/12/2020 51 760 317 3/1/2021 23 760 317 3/1/2021 137 111 842 336 3/2/2021 137 111 265 3/2/2021 50 144 289 8/27/2021 50 144 289 8/27/2021 154 145 846 278	10/1/2018		165	138		
4/1/2019 54 149 19 (J) 9/25/2019 51 157 159 10/9/2019 809 733 3/17/2020 47 146 148 7/6/2020 793 793 8/27/2020 838 9/22/2020 9/22/2020 296 9/23/2020 9/24/2020 51 157 155 832 9/24/2020 51 842 336 11/12/2020 760 317 3/1/2021 23 760 317 3/1/2021 23 111 782 3/3/2021 137 111 289 8/20/2021 50 144 289 8/27/2021 154 145 846 278	10/2/2018	57				
9/25/2019 51 157 159 10/9/2019 809 3/17/2020 733 3/19/2020 47 146 148 7/6/2020 793 49 8/27/2020 349 838 9/22/2020 296 296 9/23/2020 51 157 155 832 9/24/2020 51 842 336 11/12/2020 760 317 3/1/2021 23 782 265 3/2/2021 137 111 8/19/2021 50 144 8/20/2021 50 144 289 8/27/2021 289 8/27/2021 154 145 846 278	3/27/2019				641	
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3/19/2020 47 146 148 7/6/2020 793 8/27/2020 349 8/28/2020 838 9/22/2020 9/23/2020 157 155 832 9/24/2020 51 51 10/7/2020 842 336 11/12/2020 760 317 3/1/2021 23 782 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 154 145 846 278	10/9/2019				809	
7/6/2020 793 8/27/2020 349 8/28/2020 838 9/22/2020 296 9/23/2020 51 10/7/2020 842 336 11/12/2020 760 317 3/1/2021 23 265 3/2/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 154 145 846 278	3/17/2020				733	
7/6/2020 793 8/27/2020 349 8/28/2020 838 9/22/2020 296 9/23/2020 51 10/7/2020 842 336 11/12/2020 760 317 3/1/2021 23 265 3/2/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 154 145 846 278	3/19/2020	47	146	148		
8/27/2020 349 8/28/2020 838 9/22/2020 296 9/23/2020 157 155 832 9/24/2020 51 10/7/2020 842 336 11/12/2020 760 317 3/1/2021 23 265 3/2/2021 782 265 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 154 145 846 278					793	
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9/22/2020 157 155 832 9/24/2020 51 842 336 10/7/2020 842 336 11/12/2020 760 317 3/1/2021 23 265 3/2/2021 782 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 154 145 846 278					838	
9/23/2020 157 155 832 9/24/2020 51 842 336 10/7/2020 842 336 11/12/2020 760 317 3/1/2021 23 265 3/2/2021 782 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 154 145 846 278						296
9/24/2020 51 10/7/2020 842 336 11/12/2020 760 317 3/1/2021 23 265 3/2/2021 782 782 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 154 145 846 278			157	155	832	
10/7/2020 842 336 11/12/2020 760 317 3/1/2021 23 265 3/2/2021 782 50 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 155 810 2/9/2022 154 145 846 278		51			552	
11/12/2020 760 317 3/1/2021 23 265 3/2/2021 782 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 155 810 2/9/2022 154 145 846 278		0.			842	336
3/1/2021 23 265 3/2/2021 782 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 155 810 2/9/2022 154 145 846 278						
3/2/2021 782 3/3/2021 137 111 8/19/2021 50 144 8/20/2021 289 8/27/2021 155 810 2/9/2022 154 145 846 278		22			700	
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8/27/2021 155 810 2/9/2022 154 145 846 278		50	144			
2/9/2022 154 145 846 278						289
2/11/2022 66			154	145	846	278
	2/11/2022	66				

Page 2

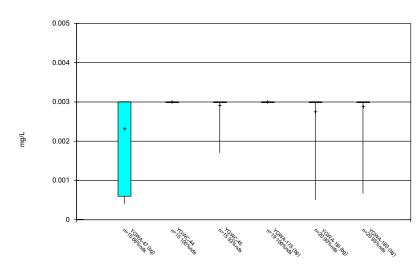
Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:40 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
8/31/2022	33	141	137	948	266

FIGURE B.

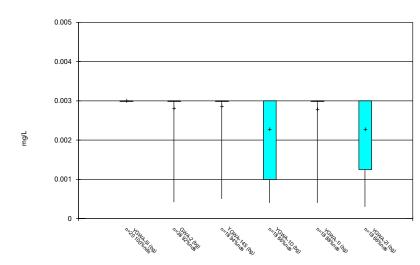
Box & Whiskers Plot



Constituent: Antimony Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

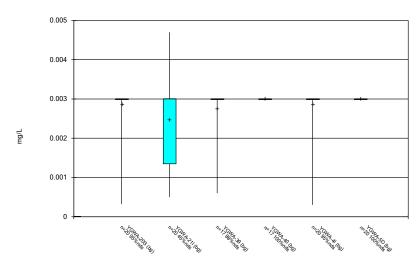
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Antimony Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

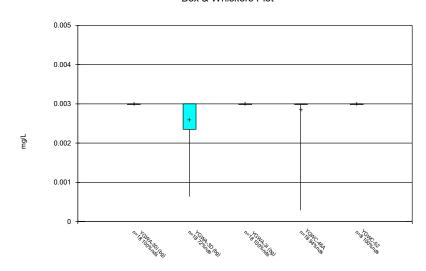
Box & Whiskers Plot



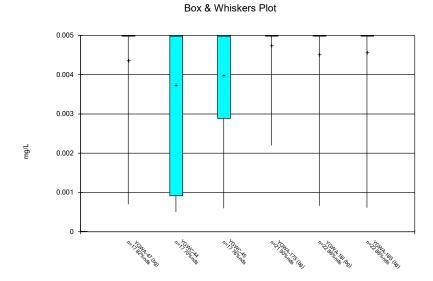
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

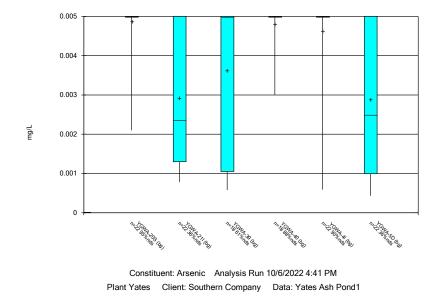
Box & Whiskers Plot



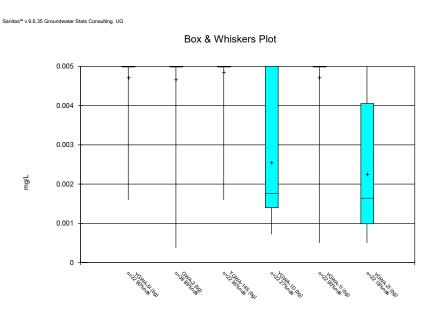
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



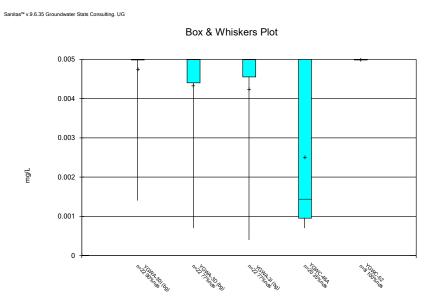
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



Box & Whiskers Plot

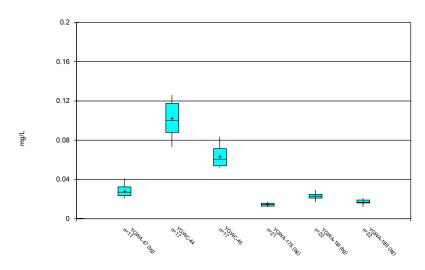


Constituent: Arsenic Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Arsenic Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

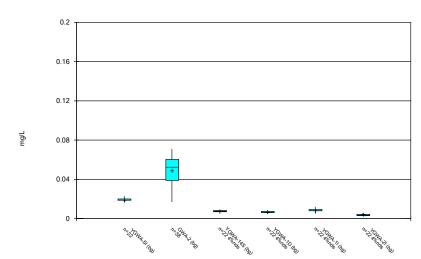
Box & Whiskers Plot



Constituent: Barium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

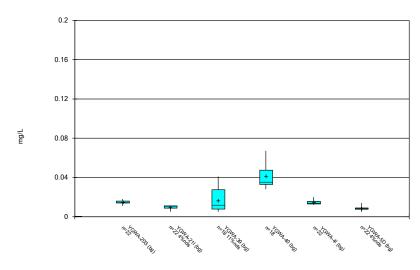
Box & Whiskers Plot



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Plant Yates Client: Southern Company Data: Yates Ash Pond1

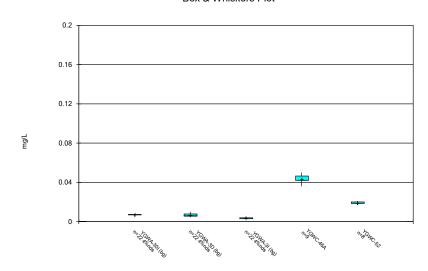
Box & Whiskers Plot



Constituent: Barium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

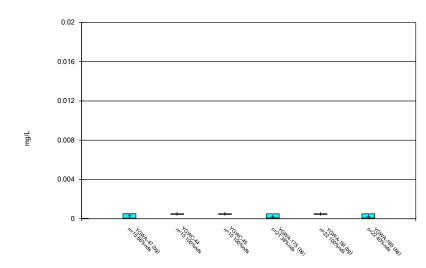
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



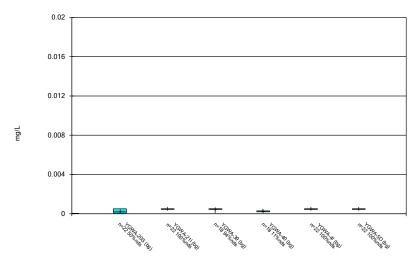
Constituent: Barium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot



Constituent: Beryllium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

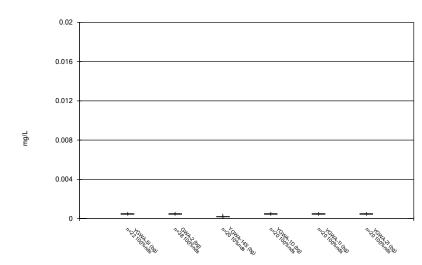
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

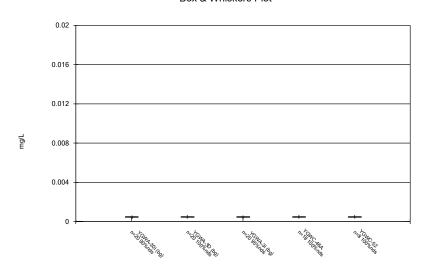
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

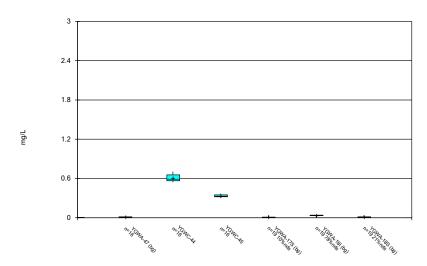
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



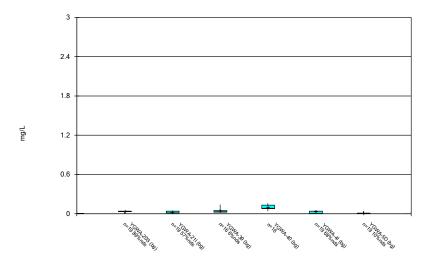
Constituent: Beryllium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot



Constituent: Boron, total Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

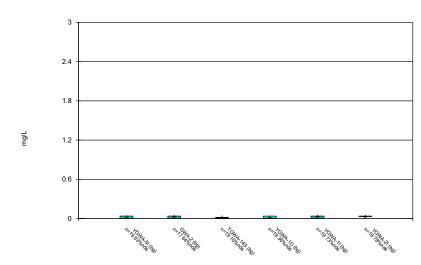
Box & Whiskers Plot



Constituent: Boron, total Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

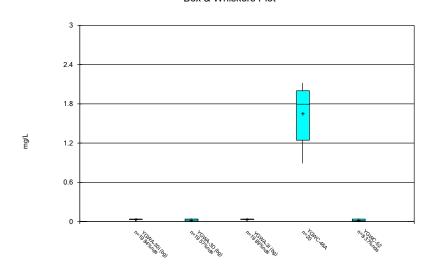
Box & Whiskers Plot



Constituent: Boron, total Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

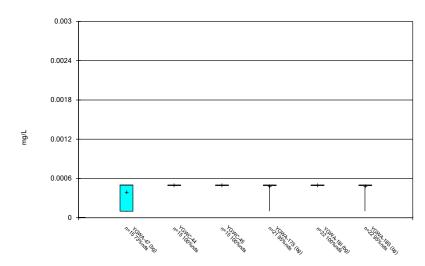
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Boron, total Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

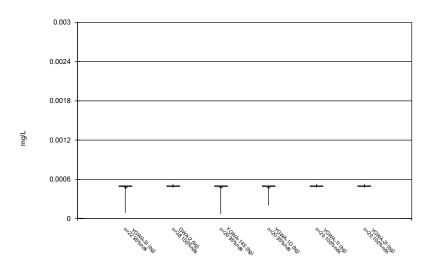
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

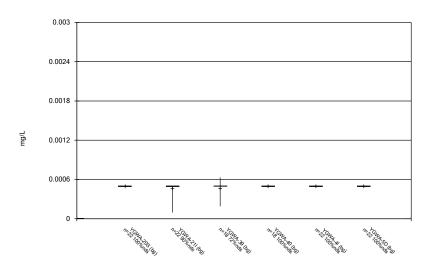
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Cadmium Analysis Run 10/6/2022 4:41 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

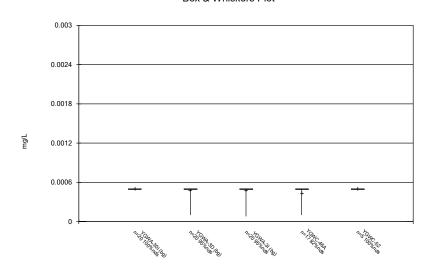
Box & Whiskers Plot



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Plant Yates Client: Southern Company Data: Yates Ash Pond1

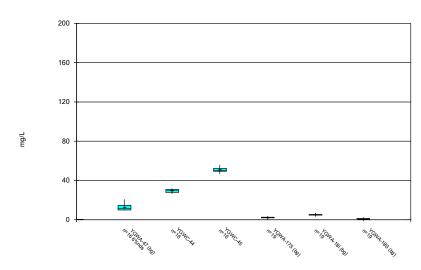
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



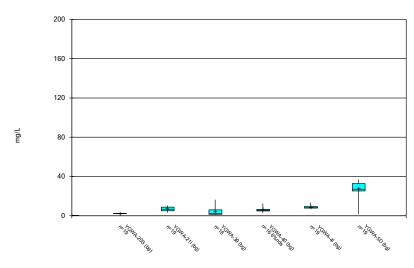
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot



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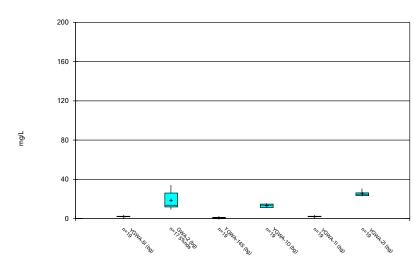
Box & Whiskers Plot



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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

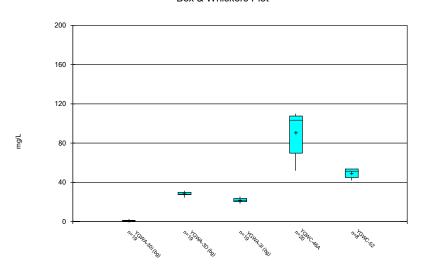
Box & Whiskers Plot



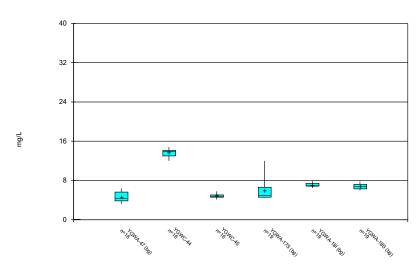
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot

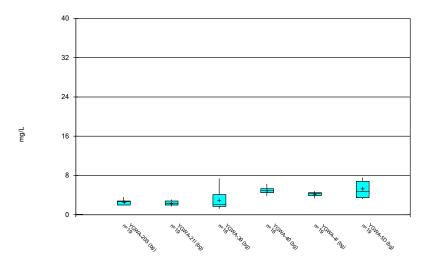


Box & Whiskers Plot



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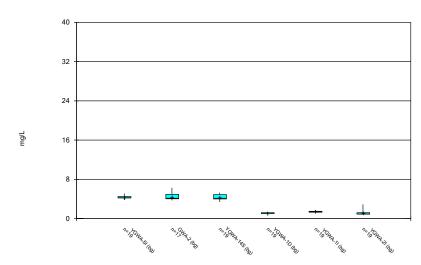
Box & Whiskers Plot



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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

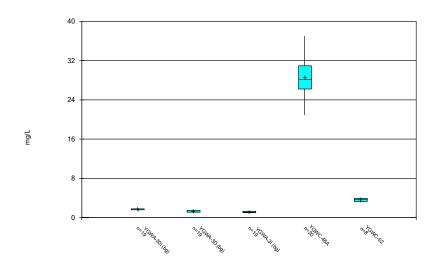
Box & Whiskers Plot



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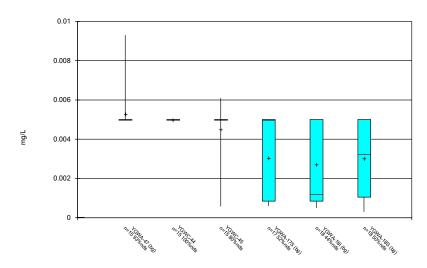
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Box & Whiskers Plot



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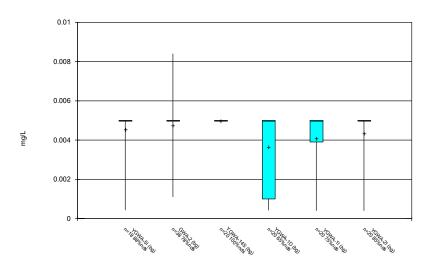
Box & Whiskers Plot



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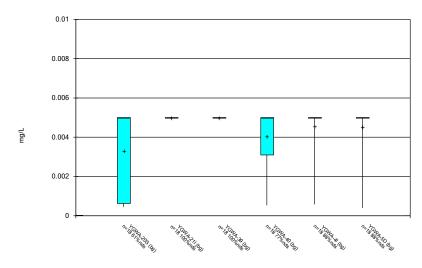
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Box & Whiskers Plot



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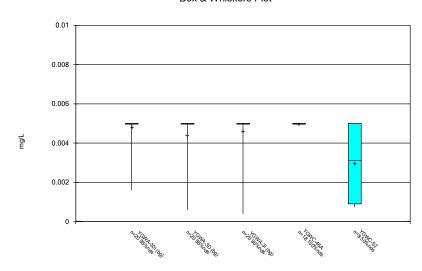
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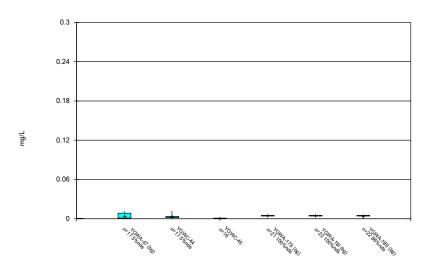
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot

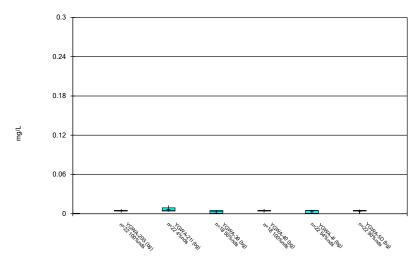


Box & Whiskers Plot



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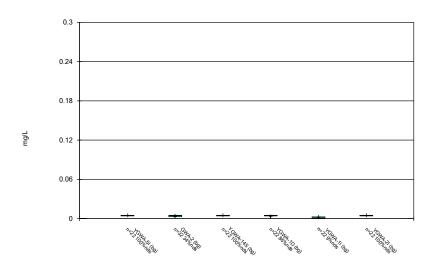
Box & Whiskers Plot



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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

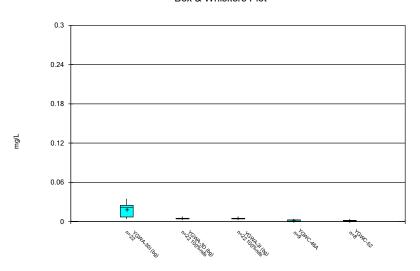
Box & Whiskers Plot



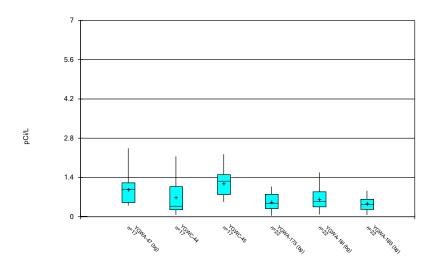
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



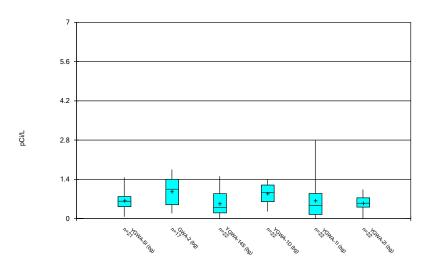
Box & Whiskers Plot



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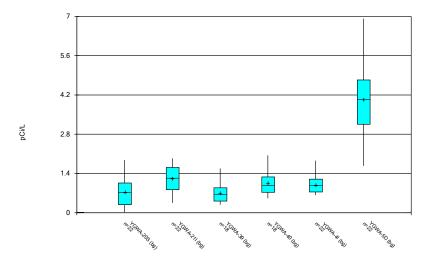
Sanitas[™] v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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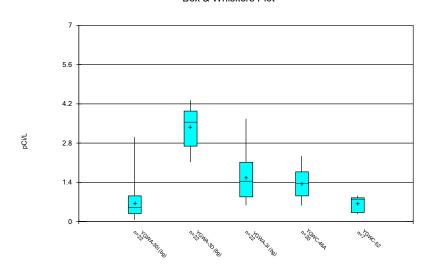
Box & Whiskers Plot



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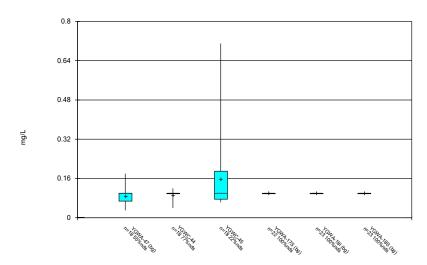
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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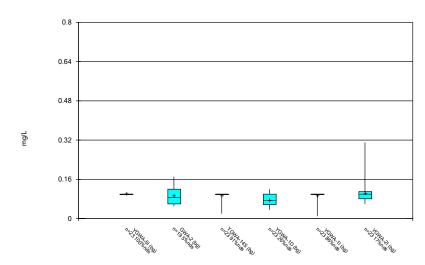
Box & Whiskers Plot



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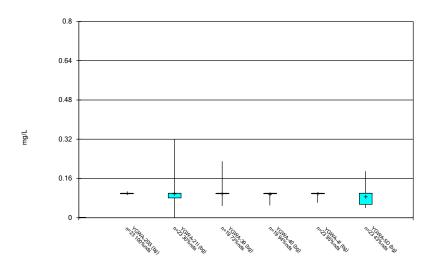
Sanitas[™] v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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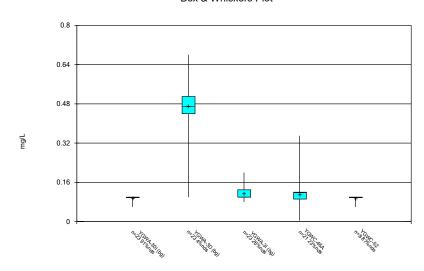
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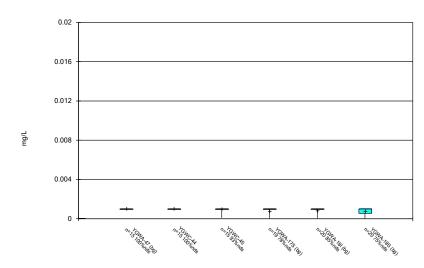
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Box & Whiskers Plot



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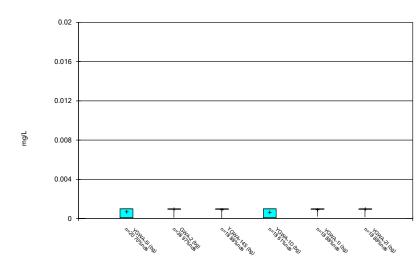
Box & Whiskers Plot



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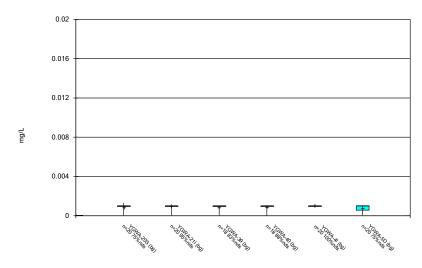
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Box & Whiskers Plot



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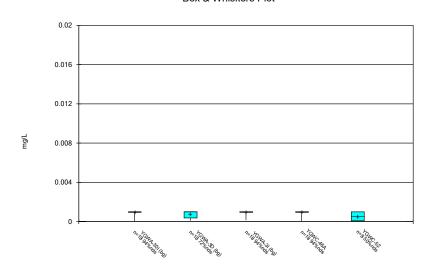
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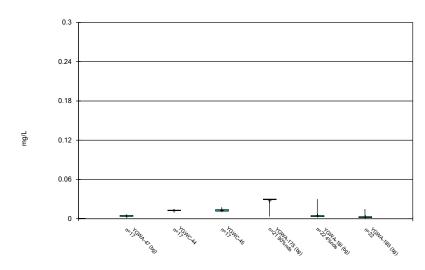
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Box & Whiskers Plot



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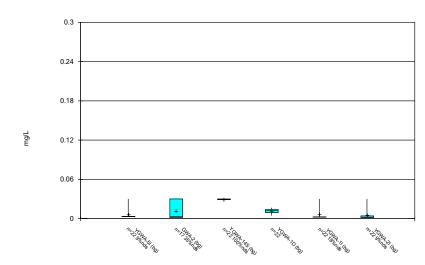
Box & Whiskers Plot



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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

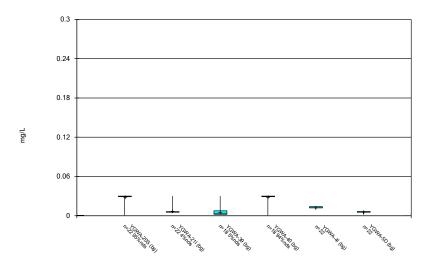
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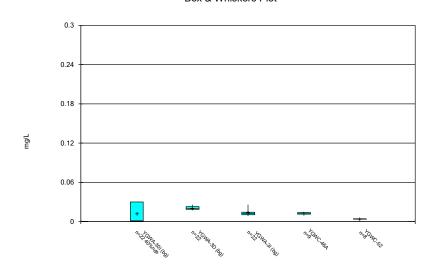
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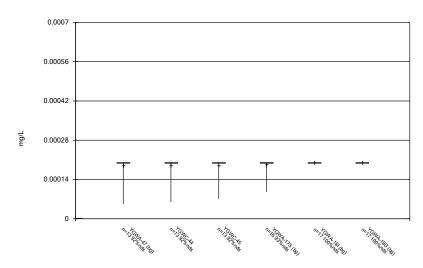
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Box & Whiskers Plot



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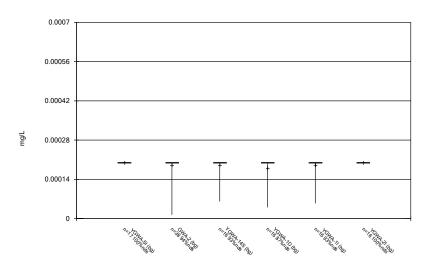
Box & Whiskers Plot



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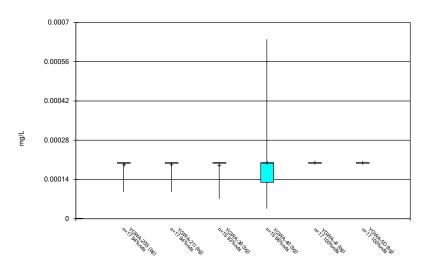
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Box & Whiskers Plot



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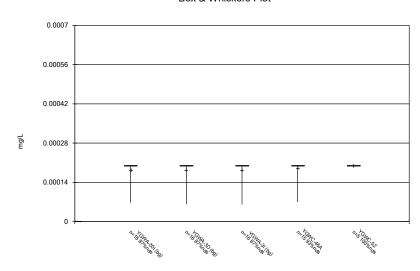
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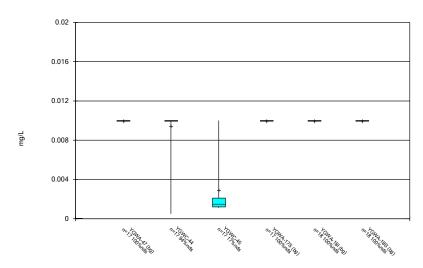
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Box & Whiskers Plot



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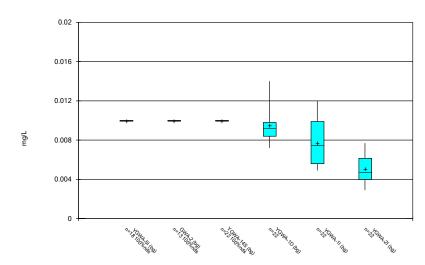
Box & Whiskers Plot



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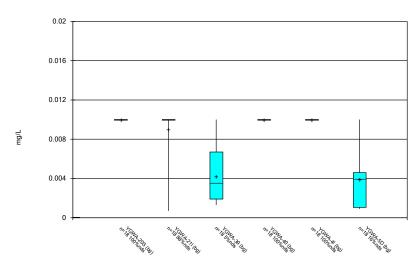
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Box & Whiskers Plot



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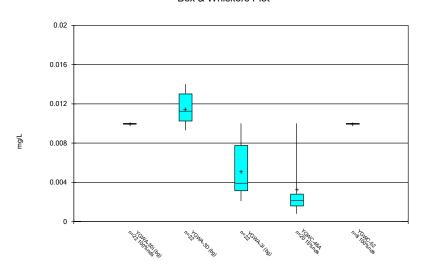
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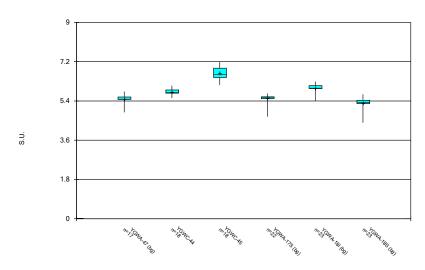
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Box & Whiskers Plot



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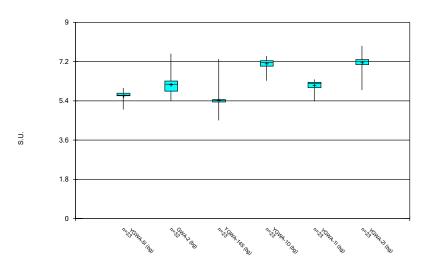
Box & Whiskers Plot



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Sanitas[™] v.9.6.35 Groundwater Stats Consulting. UG

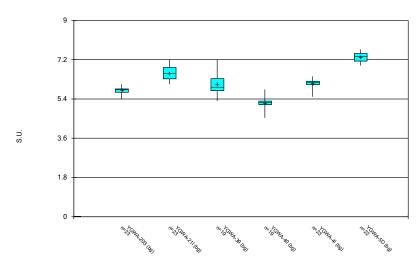
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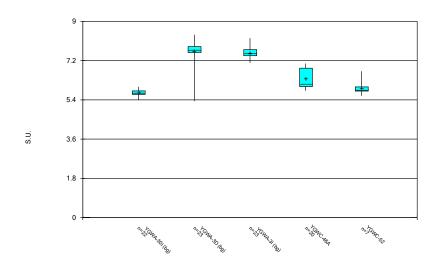
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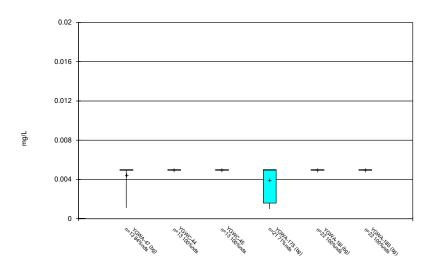
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Box & Whiskers Plot



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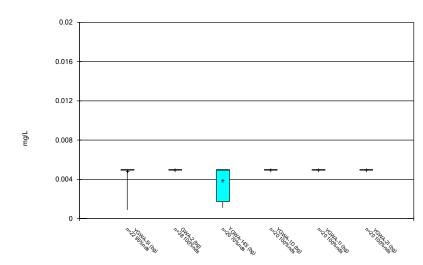
Box & Whiskers Plot



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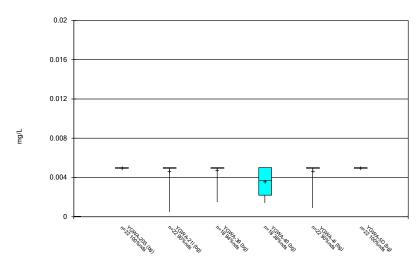
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Box & Whiskers Plot



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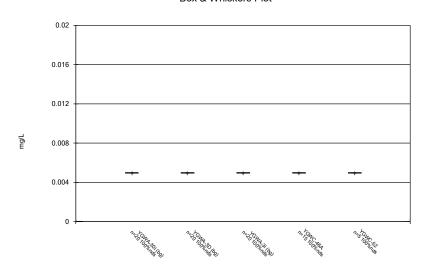
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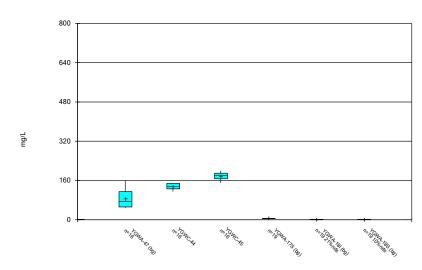
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Box & Whiskers Plot



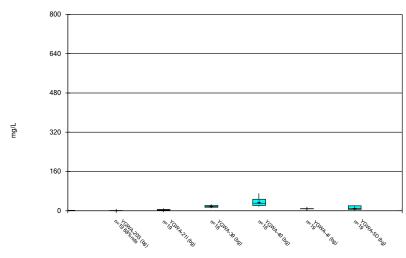
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Box & Whiskers Plot



Constituent: Sulfate as SO4 Analysis Run 10/6/2022 4:42 PM
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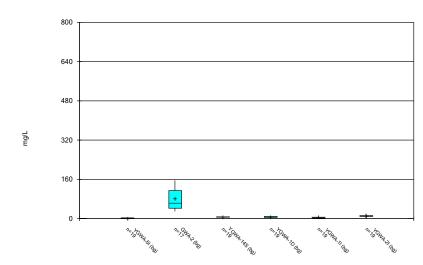
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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

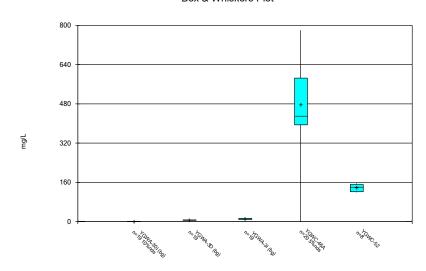
Box & Whiskers Plot



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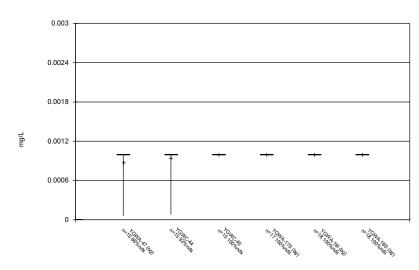
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Box & Whiskers Plot



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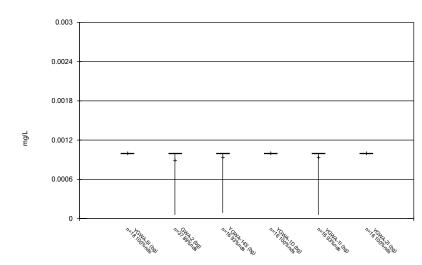
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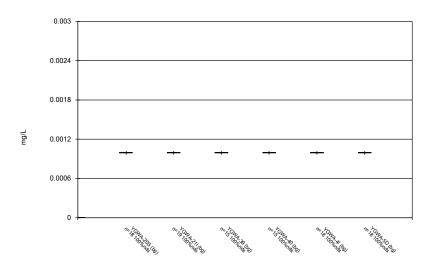
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Box & Whiskers Plot



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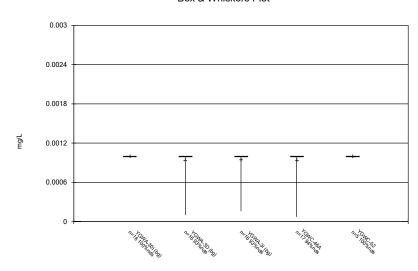
Box & Whiskers Plot



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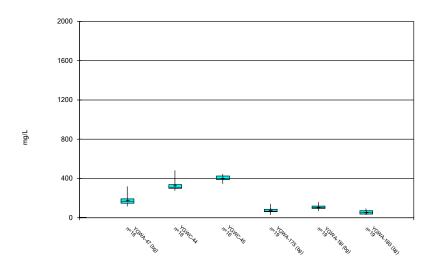
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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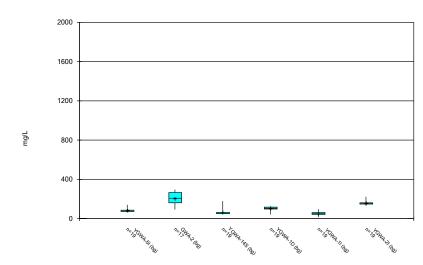
Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:42 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

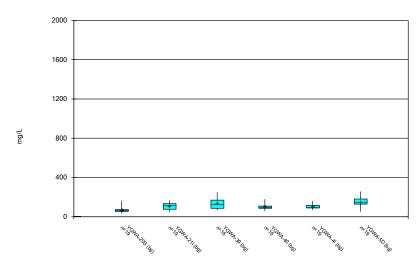
Sanitas[™] v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:42 PM
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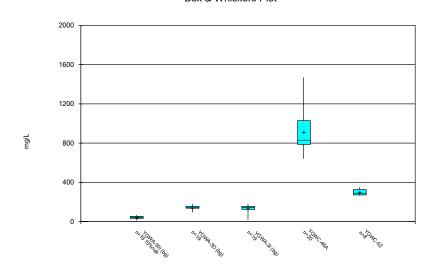
Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:42 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:42 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

FIGURE C.

Outlier Summary

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 4:46 PM

	YGWC-45 Cobalt (mg/L) GWA-2 Cobalt (mg/L) YGWA-47 pH, Field (S.U.)
8	63(0)

		0	
4/2/2018			6.3 (O)
4/3/2018	<0.005 (O)		
8/26/2020		0.2 (O)	
9/22/2020		0.16 (O)	
3/2/2021		0.21 (O)	
8/20/2021		0.074 (O)	
2/8/2022		0.072 (O)	
8/30/2022		0.075 (O)	

FIGURE D.

Appendix III Interwell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 4:56 PM Constituent <u>Well</u> Upper Lim. Lower Lim. Date Observ. Sig. Bg N Bg Mean Std. Dev. %NDs ND Adj. Transform Alpha Method Boron, total (mg/L) YGWC-44 0.16 n/a 8/31/2022 0.54 Yes 350 n/a 48.57 n/a 0.00004922 NP Inter (normality) 1 of 2 n/a n/a Boron, total (mg/L) YGWC-45 0.16 n/a 8/31/2022 0.33 Yes 350 n/a n/a 48.57 n/a n/a 0.00004922 NP Inter (normality) 1 of 2 Boron, total (mg/L) YGWC-46A 8/31/2022 2.1 Yes 350 n/a 48.57 n/a 0.00004922 NP Inter (normality) 1 of 2 0.16 n/a n/a n/a Calcium, total (mg/L) YGWC-45 37 8/31/2022 51.8 Yes 350 n/a 0.8571n/a 0.00004922 NP Inter (normality) 1 of 2 Calcium, total (mg/L) YGWC-46A 37 8/31/2022 110 Yes 350 n/a 0.8571n/a 0.00004922 NP Inter (normality) 1 of 2 n/a n/a n/a Calcium, total (mg/L) YGWC-52 37 8/31/2022 41.8 Yes 350 n/a 0.8571n/a 0.00004922 NP Inter (normality) 1 of 2 Chloride, Total (mg/L) YGWC-44 8/31/2022 14.5 Yes 350 n/a 0.00004922 NP Inter (normality) 1 of 2 12 n/a n/a n/a n/a Chloride, Total (mg/L) YGWC-46A 12 8/31/2022 29.9 Yes 350 n/a 0.00004922 NP Inter (normality) 1 of 2 YGWC-45 8/31/2022 177 0.00004922 NP Inter (normality) 1 of 2 Sulfate as SO4 (mg/L) 160 n/a Yes 350 n/a n/a n/a n/a Sulfate as SO4 (mg/L) YGWC-46A 160 n/a 8/31/2022 459 Yes 350 n/a n/a 0.00004922 NP Inter (normality) 1 of 2 Yes 350 10.07 Total Dissolved Solids [TDS] (mg/L) YGWC-44 8/31/2022 343 Param Inter 1 of 2 211.5 n/a 2.588 0.5714None sqrt(x) 0.00188 Total Dissolved Solids [TDS] (mg/L) YGWC-45 8/31/2022 445 Yes 350 10.07 211.5 n/a 0.5714None sqrt(x) 0.00188 Param Inter 1 of 2 Total Dissolved Solids [TDS] (mg/L) YGWC-46A 8/31/2022 948 Yes 350 10.07 Param Inter 1 of 2 211.5 n/a 2.588 0.5714None sqrt(x) 0.00188 Total Dissolved Solids [TDS] (mg/L) YGWC-52 211.5 8/31/2022 266 Yes 350 10.07 2.588 0.5714None sqrt(x) 0.00188 Param Inter 1 of 2

Appendix III Interwell Prediction Limits - All Results

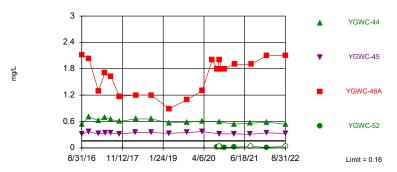
Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 4:56 PM

Constituent	Well	Upper Lim.	. Lower Lim.	. Date	Observ.	Sig. Bg N	Bg Mean	Std. Dev.	%NDs	s ND Adj.	Transform	Alpha	Method
Boron, total (mg/L)	YGWC-44	0.16	n/a	8/31/2022	0.54	Yes 350	n/a	n/a	48.57	n/a	n/a		NP Inter (normality) 1 of 2
Boron, total (mg/L)	YGWC-45	0.16	n/a	8/31/2022	0.33	Yes 350	n/a	n/a	48.57	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Boron, total (mg/L)	YGWC-46A	0.16	n/a	8/31/2022	2.1	Yes 350	n/a	n/a	48.57	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Boron, total (mg/L)	YGWC-52	0.16	n/a	8/31/2022	0.04ND	No 350	n/a	n/a	48.57	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	YGWC-44	37	n/a	8/31/2022	30.8	No 350	n/a	n/a	0.857	1n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	YGWC-45	37	n/a	8/31/2022	51.8	Yes 350	n/a	n/a	0.857	1n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	YGWC-46A	37	n/a	8/31/2022	110	Yes 350	n/a	n/a	0.857	1n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium, total (mg/L)	YGWC-52	37	n/a	8/31/2022	41.8	Yes 350	n/a	n/a	0.857	1n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	YGWC-44	12	n/a	8/31/2022	14.5	Yes 350	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	YGWC-45	12	n/a	8/31/2022	5.4	No 350	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	YGWC-46A	12	n/a	8/31/2022	29.9	Yes 350	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	YGWC-52	12	n/a	8/31/2022	3.4	No 350	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Fluoride, total (mg/L)	YGWC-44	0.68	n/a	8/31/2022	0.055J	No 419	n/a	n/a	65.63	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	YGWC-45	0.68	n/a	8/31/2022	0.1	No 419	n/a	n/a	65.63	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	YGWC-46A	0.68	n/a	8/31/2022	0.12	No 419	n/a	n/a	65.63	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride, total (mg/L)	YGWC-52	0.68	n/a	8/31/2022	0.059J	No 419	n/a	n/a	65.63	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
pH, Field (S.U.)	YGWC-44	8.39	4.4	8/31/2022	5.77	No 429	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH, Field (S.U.)	YGWC-45	8.39	4.4	8/31/2022	6.56	No 429	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH, Field (S.U.)	YGWC-46A	8.39	4.4	8/31/2022	6.87	No 429	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH, Field (S.U.)	YGWC-52	8.39	4.4	8/31/2022	5.58	No 429	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	YGWC-44	160	n/a	8/31/2022	130	No 350	n/a	n/a	6	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	YGWC-45	160	n/a	8/31/2022	177	Yes 350	n/a	n/a	6	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	YGWC-46A	160	n/a	8/31/2022	459	Yes 350	n/a	n/a	6	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	YGWC-52	160	n/a	8/31/2022	122	No 350	n/a	n/a	6	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	YGWC-44	211.5	n/a	8/31/2022	343	Yes 350	10.07	2.588	0.571	4None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	YGWC-45	211.5	n/a	8/31/2022	445	Yes 350	10.07	2.588	0.571	4None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	YGWC-46A	211.5	n/a	8/31/2022	948	Yes 350	10.07	2.588	0.571	4None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids [TDS] (mg/L)	YGWC-52	211.5	n/a	8/31/2022	266	Yes 350	10.07	2.588	0.571	4None	sqrt(x)	0.00188	Param Inter 1 of 2

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Exceeds Limit: YGWC-44, YGWC-45, YGWC-46A

Prediction Limit Interwell Non-parametric

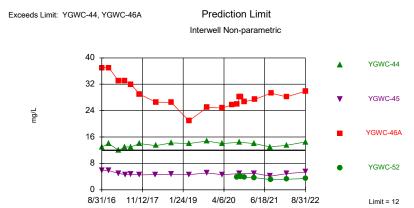


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 350 background values. 48.57% NDs. Annual perconstituent alpha = 0.0003937. Individual comparison alpha = 0.00004922 (1 of 2). Comparing 4 points to limit.

Constituent: Boron, total Analysis Run 10/6/2022 4:54 PM View: Appendix III

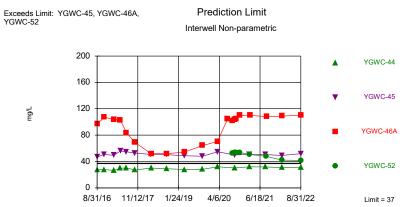
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG



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. Limit is highest of 350 background values. Annual per-constituent alpha = 0.0003937. Individual comparison alpha = 0.0004922 (1 of 2). Comparing 4 points to limit.

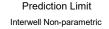
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

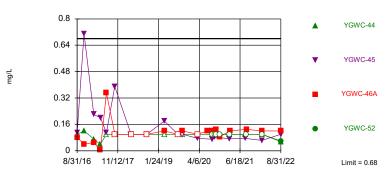


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 350 background values. 0.8571% NDs. Annual perconstituent alpha = 0.0003937. Individual comparison alpha = 0.00004922 (1 of 2). Comparing 4 points to limit.

Constituent: Calcium, total Analysis Run 10/6/2022 4:54 PM View: Appendix III
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values. Within Limit

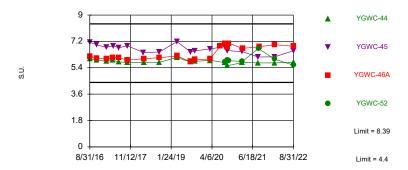




Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 419 background values. 65.63% NDs. Annual per-constituent alpha = 0.0003937. Individual comparison alpha = 0.0004922 (1 of 2). Comparing 4 points to limit.

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Within Limits Prediction Limit
Interwell Non-parametric

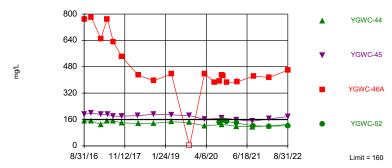


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to en on-normal at the 0.01 alpha level. Limits are highest and lowest of 429 background values. Annual perconstituent alpha = 0.0007874. Individual comparison alpha = 0.0009844 (1 of 2). Comparing 4 points to limit.

Constituent: pH, Field Analysis Run 10/6/2022 4:54 PM View: Appendix III
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values. Exceeds Limit: YGWC-45, YGWC-46A

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. Limit is highest of 350 background values. 6% NDs. Annual per-constituent alpha = 0.0003937. Individual comparison alpha = 0.00004922 (1 of 2). Comparing 4 points to limit.

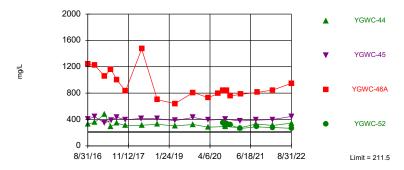
Constituent: Sulfate as SO4 Analysis Run 10/6/2022 4:55 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Exceeds Limit: YGWC-44, YGWC-45, YGWC-46A, YGWC-52

Prediction Limit Interwell Parametric



Background Data Summary (based on square root transformation): Mean=10.07, Std. Dev.=2.588, n=350, 0.5714% NDs. Normality test was disabled. Kappa = 1.728 (c=7, w=4, 1 of 2, event alpha = 0.05132). N exceeds UG tables; Kappa based on n=150. Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 4:55 PM View: Appendix III - Parametri Plant Yates Client: Southern Company Data: Yates Ash Pond1

Constituent: Boron, total (mg/L) Analysis Run 10/6/2022 4:56 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

6/1/2016	YGWA-1D (bg) <0.04	YGWA-1I (bg) <0.04	YGWA-3I (bg) <0.04	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/2/2016	10.04	10.04	10.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
6/6/2016				10.04	10.04	10.04	10.04	10.04	10.04
6/7/2016		.0.04	.0.04					.0.04	
7/25/2016	0.0055 (1)	<0.04	<0.04	.004	0.0050 (1)	0.0047 (1)	0.0477 (1)	<0.04	0.0007 (1)
7/26/2016	0.0055 (J)			<0.04	0.0052 (J)	0.0047 (J)	0.0177 (J)		0.0097 (J)
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	<0.04	<0.04							
9/14/2016			<0.04	0.01 (J)	0.0071 (J)	<0.04			
9/15/2016							0.0214 (J)		0.0102 (J)
9/16/2016									
9/19/2016								<0.04	
11/1/2016	0.0086 (J)		<0.04					<0.04	<0.04
11/2/2016					<0.04	<0.04	<0.04		
11/3/2016									
11/4/2016		<0.04		<0.04					
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017							0.0198 (J)		
1/11/2017	0.0074 (J)		<0.04						<0.04
1/12/2017				<0.04	0.0076 (J)				
1/13/2017					,	<0.04			
1/16/2017		<0.04						<0.04	
2/21/2017								<0.04	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017			<0.04						
3/2/2017	0.008 (J)	<0.04	-0.0-7						0.0084 (J)
3/3/2017	0.000 (0)	10.04							0.0004 (3)
3/6/2017						<0.04			
3/7/2017				<0.04	0.0089 (J)	-0.04			
3/8/2017				~0.04	0.0089 (3)		0.0189 (J)		
4/26/2017			<0.04				0.0169 (J) 0.0161 (J)	<0.04	<0.04
	0.0066 (1)	<0.04	~0.04				0.0101 (3)	~0.04	\0.04
4/27/2017	0.0066 (J)	<0.04							
4/28/2017					0.0061 (J)	<0.04			
5/1/2017				<0.04	0.0001 (J)	<0.04			
5/2/2017				<0.04					
5/8/2017									
5/9/2017									
5/26/2017	0.0057711	0.005 (1)			0.00=0.4%				
6/27/2017	0.0087 (J)	0.006 (J)		<0.04	0.0079 (J)				
6/28/2017			<0.04						<0.04
6/29/2017						<0.04			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/30/2017							0.0173 (J)	<0.04	
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	0.0072 (J)	0.0071 (J)		<0.04	0.0094 (J)				
10/4/2017	0.0072 (0)	0.007. (0)	<0.04	0.01	0.000 . (0)			<0.04	<0.04
10/5/2017			10.04			<0.04	0.0173 (J)	10.04	·0.0 1
						\0.04	0.0173 (3)		
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018	0.0052 (J)								
6/6/2018		<0.04			0.0098 (J)				
6/7/2018				<0.04		0.0045 (J)			0.004 (J)
6/8/2018			<0.04				0.013 (J)		
6/11/2018							. ,	0.014 (J)	
6/28/2018								. ,	
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				0.0057 (J)	0.01 (J)	0.005 (J)			
10/1/2018	0.021 (1)	0.0049 (J)	<0.04	0.0037 (3)	0.01 (3)	0.003 (3)	0.015 (1)		<0.04
10/1/2018	0.021 (J)	0.0049 (3)	\0.04				0.015 (J)	<0.04	~0.04
								<0.04	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	0.005 (J)	<0.04							
3/29/2019							0.014 (J)		
4/1/2019			<0.04					<0.04	<0.04
4/2/2019									
4/3/2019				0.0044 (J)	0.0076 (J)	0.0055 (J)			
6/12/2019									
9/24/2019	0.0064 (J)	0.0055 (J)		0.0049 (J)	0.01 (J)				
9/25/2019			<0.04			<0.04	0.018 (J)	<0.04	0.0054 (J)
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020									
3/18/2020		0.0087 (J)					0.02 (J)		
3/19/2020	0.0085 (J)		0.0053 (J)					0.0052 (J)	0.0073 (J)
3/24/2020				0.0068 (J)	0.011 (J)				
3/25/2020						0.011 (J)			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				0.0053 (J)	0.0079 (J)	<0.04			
9/23/2020	<0.04	<0.04	0.0073 (J)						0.012 (J)
9/24/2020								0.0075 (J)	
9/25/2020							0.02 (J)		
10/7/2020									
11/12/2020									
3/1/2021								<0.04	
3/2/2021				0.011 (J)	0.0068 (J)		0.017 (J)		
3/3/2021	<0.04	<0.04	<0.04			0.0056 (J)			<0.04
3/4/2021									
8/19/2021	<0.04	<0.04					0.018 (J)	<0.04	<0.04
8/20/2021									
8/26/2021				<0.04	0.009 (J)	<0.04			
8/27/2021			<0.04						
9/1/2021									
9/3/2021									
2/8/2022									
2/9/2022	<0.04	<0.04	<0.04						0.01 (J)
2/10/2022				<0.04	0.011 (J)		0.02 (J)		
2/11/2022						<0.04		<0.04	
8/30/2022	<0.04			<0.04	0.0098 (J)				
8/31/2022		<0.04	<0.04			<0.04	0.015 (J)	<0.04	<0.04

		YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6	6/1/2016									
6	6/2/2016									
	6/6/2016	<0.04	<0.04							
	6/7/2016			<0.04	<0.04	<0.04				
	7/25/2016									
	7/26/2016									
	7/27/2016	0.0059 (J)	<0.04		0.008 (J)	<0.04				
	7/28/2016	0.0039 (3)	~0.04	<0.04	0.008 (3)	\0.04				
				<0.04			0.0100 (1)			
	3/30/2016						0.0166 (J)	0.000	0.544	0.0015 (1)
	3/31/2016							0.308	0.541	0.0315 (J)
	9/1/2016									
	9/13/2016									
	9/14/2016									
	9/15/2016									
	9/16/2016	0.0079 (J)			0.0086 (J)					
	9/19/2016		<0.04	<0.04		<0.04				
	11/1/2016									
1	11/2/2016					<0.04				
1	11/3/2016	0.0082 (J)	<0.04	<0.04	0.0077 (J)					
1	1/4/2016									
1	11/14/2016						0.0166 (J)	0.368		
1	1/15/2016								0.706	
1	1/16/2016									
1	1/28/2016									0.0095 (J)
1	12/15/2016									
1	1/10/2017									
1	1/11/2017	0.0096 (J)	<0.04		0.0092 (J)					
1	1/12/2017									
1	1/13/2017			<0.04		<0.04				
1	1/16/2017									
2	2/21/2017									
2	2/22/2017									<0.04
2	2/24/2017						0.0145 (J)			
	2/27/2017						, ,	0.321		
	2/28/2017								0.623	
	3/1/2017	<0.04	<0.04							
	3/2/2017				0.0095 (J)					
	3/3/2017				(,)					
	3/6/2017			<0.04		<0.04				
	3/7/2017			0.01		0.01				
	3/8/2017									
	1/26/2017	0.0091 (J)	<0.04	<0.04		<0.04				
	1/27/2017	0.0051 (0)	10.04	10.04		10.04				
	1/28/2017									
	5/1/2017				-0.04					
	5/2/2017				<0.04		0.044475		0.00	0.000471)
	5/8/2017						0.0141 (J)		0.69	0.0084 (J)
	5/9/2017							0.338		
	5/26/2017									
	6/27/2017									
	5/28/2017	0.0079 (J)	<0.04							
6	6/29/2017			<0.04	0.0074 (J)	<0.04				

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/30/2017									
7/11/2017						0.0131 (J)			
7/13/2017							0.34	0.649	
7/17/2017									0.0092 (J)
10/3/2017			<0.04						
10/4/2017	0.009 (J)			0.0077 (J)	<0.04				
10/5/2017		<0.04							
10/10/2017						0.0124 (J)	0.319	0.603	
10/11/2017									
10/12/2017									
10/16/2017									<0.04
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									<0.04
2/20/2018									0.0 1
4/2/2018						0.013 (J)			
4/3/2018						0.013 (3)	0.35		
4/4/2018							0.33	0.66	
6/5/2018			0.0092 (J)					0.00	
			0.0092 (3)		0.0040 (1)				
6/6/2018		10.04			0.0049 (J)				
6/7/2018		<0.04							
6/8/2018	0.0002 (1)			0.01 (1)					
6/11/2018	0.0093 (J)			0.01 (J)					
6/28/2018									
8/6/2018									<0.04
8/7/2018									
9/19/2018						0.012 (J)	0.35	0.66	
9/24/2018									
9/25/2018	0.007 (J)	0.0046 (J)	0.0054 (J)	0.0096 (J)	<0.04				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019									<0.04
3/26/2019									
3/27/2019						0.013 (J)	0.33	0.57	
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			0.011 (J)	0.0066 (J)					
4/3/2019	0.0053 (J)	<0.04			<0.04				
6/12/2019									<0.04
9/24/2019			0.018 (J)						
9/25/2019				0.0081 (J)	<0.04				
9/26/2019	0.0072 (J)	0.0062 (J)							
10/8/2019						0.012 (J)		0.58	<0.04
10/9/2019							0.35		
3/17/2020						0.023 (J)	0.37	0.61	0.0051 (J)
3/18/2020									
3/19/2020									
3/24/2020	0.01 (J)	0.0054 (J)	0.016 (J)	0.0092 (J)	<0.04				
3/25/2020									

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						0.0076 (J)		0.59	0.0079 (J)
9/23/2020	0.006 (J)	0.021 (J)		0.0066 (J)			0.32		
9/24/2020			0.013 (J)		0.0094 (J)				
9/25/2020									
10/7/2020									
11/12/2020									
3/1/2021						0.013 (J)	0.32	0.54	
3/2/2021									<0.04
3/3/2021	0.0094 (J)	<0.04		0.01 (J)	<0.04				
3/4/2021			0.0079 (J)						
8/19/2021						0.011 (J)	0.31	0.56	
8/20/2021									<0.04
8/26/2021	<0.04								
8/27/2021		<0.04		0.011 (J)	<0.04				
9/1/2021			<0.04						
9/3/2021									
2/8/2022						0.015 (J)			<0.04
2/9/2022	<0.04	<0.04	<0.04	0.0098 (J)	<0.04		0.34	0.58	
2/10/2022									
2/11/2022									
8/30/2022	0.014 (J)	<0.04	0.012 (J)	0.013 (J)					<0.04
8/31/2022					<0.04	0.0091 (J)	0.33	0.54	

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	2.12				
9/13/2016					
9/14/2016		<0.04			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		<0.04			
11/14/2016					
11/15/2016					
11/16/2016	2.03				
11/28/2016					
12/15/2016		0.0107 (J)			
1/10/2017		(5)			
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		<0.04			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	1.29				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		<0.04			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		<0.04			
5/1/2017					
5/2/2017					
5/8/2017	1.71				
5/9/2017					
5/26/2017		<0.04			
6/27/2017					
6/28/2017		<0.04			
6/29/2017					

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/30/2017		/	,	,	
7/11/2017					
7/13/2017	1.62				
7/17/2017					
10/3/2017		<0.04			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	1.17		0.0135 (J)		
10/12/2017				0.0401	
10/16/2017					
11/20/2017			0.0251 (J)	0.156	
1/10/2018				0.15	
1/11/2018			0.0255 (J)		
2/19/2018				0.146	
2/20/2018			<0.04		
4/2/2018					
4/3/2018			0.033 (J)	0.12	
4/4/2018	1.2				
6/5/2018					
6/6/2018					
6/7/2018		<0.04			
6/8/2018					
6/11/2018					
6/28/2018			0.053	0.16	
8/6/2018					
8/7/2018			0.024 (J)	0.12	
9/19/2018	1.2				
9/24/2018			0.028 (J)	0.099	
9/25/2018					
9/26/2018					
10/1/2018		<0.04			
10/2/2018					
2/25/2019					
3/26/2019				0.096	
3/27/2019	0.89		0.017 (J)		
3/28/2019					
3/29/2019		0.0065 (J)			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
9/24/2019		0.0076 (J)			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	1.1		0.017 (J)	0.079	
3/17/2020	1.3				
3/18/2020					
3/19/2020		0.0073 (J)			
3/24/2020			0.040./ "	0.088 (J)	
3/25/2020			0.043 (J)		

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52	
7/6/2020	2					
8/27/2020					0.014 (J)	
8/28/2020	1.8					
9/22/2020					<0.04	
9/23/2020	2	<0.04				
9/24/2020			0.037 (J)	0.087 (J)		
9/25/2020						
10/7/2020	1.8				0.018 (J)	
11/12/2020	1.8				0.012 (J)	
3/1/2021					0.015 (J)	
3/2/2021	1.9					
3/3/2021		<0.04				
3/4/2021			0.033 (J)	0.078		
8/19/2021						
8/20/2021					<0.04	
8/26/2021			0.095			
8/27/2021	1.9	<0.04				
9/1/2021						
9/3/2021				0.077		
2/8/2022			0.13	0.074		
2/9/2022	2.1	<0.04			0.0089 (J)	
2/10/2022						
2/11/2022						
8/30/2022		<0.04				
8/31/2022	2.1		0.14	0.062	<0.04	

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/1/2016	12	2.5	21						
6/2/2016				2.4	33	8.8	1.3	1.3	28
6/6/2016									
6/7/2016									
7/25/2016		2.16	20.3					1.17	
7/26/2016	11			2.12	32.3	7.69	1.24		24.5
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	11.8	2.21							
9/14/2016			19.7	2.18	31	8.49			
9/15/2016							1.17		27
9/16/2016									
9/19/2016								1.05	
11/1/2016	11		18.4					1.14	25.6
11/2/2016					30.9	7.83	1.23		
11/3/2016									
11/4/2016		2.67		2.17 (J)					
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017							1.24		
1/11/2017	11.2		20.3						27.5
1/12/2017				2.37	35.7				
1/13/2017						8.08			
1/16/2017		2.45						1.23	
2/21/2017								1.25	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017			18.6						
3/2/2017	11	2.57							27.5
3/3/2017									
3/6/2017						8.64			
3/7/2017				2.34	32.7				
3/8/2017							1.21		
4/26/2017			25.6				1.14	1.03	30.4
4/27/2017	11.1	2.38							
4/28/2017									
5/1/2017					37	13.4			
5/2/2017				2.17					
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	13.8	2.36		2.13	36.5				
6/28/2017			23.9						29.8
6/29/2017						8.81			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/30/2017							1.24	1.13	
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	14	2.21		2.15	30.9				
10/4/2017			22.1					1.09	29.7
10/5/2017						9.29	1.11		
10/10/2017						0.20			
10/11/2017									
10/11/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018	15.2 (J)								
6/6/2018		2.3			26.2				
6/7/2018				2.3		8.2			29.1
6/8/2018			21.9 (J)				1.1		
6/11/2018								1.1	
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				2.3	25.8	9.5 (J)			
10/1/2018	15.1	1.8	19.7				0.99		26.9
10/2/2018								1.1	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	13.3 (J)	2.2							
3/29/2019	(0)						1.1		
4/1/2019			20.4 (J)					1.3	30.1
4/2/2019			20.1 (0)						30.1
4/3/2019				2.8	24.7 (J)	8.4			
6/12/2019				2.0	24.7 (0)	0.4			
9/24/2019	15.8	2.3		2.5	25.8				
9/25/2019	13.0	2.3	22.4	2.3	23.0	9.5	1.1	1.1	29.5
			22.4			9.5	1.1	1.1	29.5
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020		0.1					4.4		
3/18/2020	de.	2.1	04.0				1.1	10	04.5
3/19/2020	15		21.9					1.2	31.5
3/24/2020				2.5	26.1				
3/25/2020						10.5			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				2.6	27.2	9.6			
9/23/2020	14.1	1.8	23.6						28.6
9/24/2020								1.1	
9/25/2020							1.3		
10/7/2020									
11/12/2020									
3/1/2021								1.2	
3/2/2021				2.6	1.6		1.2		
3/3/2021	14.1	1.8	20.6			7.7			29.8
3/4/2021									
8/19/2021	14.2	2					1.2	1.2	28.1
8/20/2021									
8/26/2021				2.5	25.2	7.6			
8/27/2021			24.7						
9/1/2021									
9/3/2021									
2/8/2022									
2/9/2022	14.9	2.1	23.7						30.3
2/10/2022				2.5	24.8		1.3		
2/11/2022						7.5		1.5	
8/30/2022	14.9			2.5	24.8				
8/31/2022		1.9	23.5			8.9	1.3	1.3	28.7

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/1/2016									
6/2/2016									
6/6/2016	1.4	6.2							
6/7/2016			3.7	2.2	2.3				
7/25/2016									
7/26/2016									
7/27/2016	1.19	4.73		2	2.08				
7/28/2016			3.15						
8/30/2016						20.9			
8/31/2016							46.7	27.3	9.31
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	1.5			1.97					
9/19/2016	1.5	4.76	3.17	1.97	1.97				
11/1/2016		4.70	3.17		1.97				
					2.12				
11/2/2016	1.01	E 0E	2.4	1.00	2.13				
11/3/2016	1.31	5.25	3.4	1.99					
11/4/2016						10.0	50.0		
11/14/2016						18.6	50.6	07.0	
11/15/2016								27.8	
11/16/2016									0.47 (D)
11/28/2016									9.47 (B)
12/15/2016									
1/10/2017									
1/11/2017	1.25	4.74		2.28					
1/12/2017									
1/13/2017			4.98		2.45				
1/16/2017									
2/21/2017									
2/22/2017									10.4
2/24/2017						16.1			
2/27/2017							49.4		
2/28/2017								26.4	
3/1/2017	1.26	5.37							
3/2/2017				2.15					
3/3/2017									
3/6/2017			6.28		2.48				
3/7/2017									
3/8/2017									
4/26/2017	1.05	4.28	6.65		2.3				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017				1.95					
5/8/2017						14.6		29.9	14.2
5/9/2017							56		
5/26/2017									
6/27/2017									
6/28/2017	1.06	4.95							
6/29/2017			6.04	2.02	2.54				

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/30/2017									
7/11/2017						14.3			
7/13/2017							54.8	30.2	
7/17/2017									14.1
10/3/2017			8.28						
10/4/2017	1.1		0.20	2.03	2.25				
10/5/2017	1.1	5.28		2.03	2.23				
		5.26				10.1	F0.0	07.0	
10/10/2017						12.1	52.8	27.2	
10/11/2017									
10/12/2017									
10/16/2017									13.6
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									<25
2/20/2018									
4/2/2018						<25			
4/3/2018							50.6		
4/4/2018								30.1	
6/5/2018			9.1						
6/6/2018					2.3				
6/7/2018		4.8							
6/8/2018									
6/11/2018	1.4			2.1					
6/28/2018									
8/6/2018									11.4 (J)
8/7/2018									11.7 (0)
9/19/2018						11.1 (J)	50.5	29.2	
						11.1 (3)	30.3	23.2	
9/24/2018	4	4.0	10.470	0.1	2.2				
9/25/2018	1	4.6	10.4 (J)	2.1	2.3				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019									12.7 (J)
3/26/2019									
3/27/2019						10.8 (J)	48.8	27.9	
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			8.8	2.5					
4/3/2019	1.2	5.3			2.9				
6/12/2019									18.9
9/24/2019			7.7						
9/25/2019				2.6	2.4				
9/26/2019	1.1	4.9							
10/8/2019						9.7		28.1	28.3
10/9/2019							47.9		
3/17/2020						14.8	54.8	31.9	24.3
3/18/2020									
3/19/2020									
3/24/2020	1	5.3	6	2.7	2.6				
3/25/2020		-			-				

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						10.1		30.4	31
9/23/2020	0.91 (J)	5.2		2.6			50		
9/24/2020			7.8		2.6				
9/25/2020									
10/7/2020									
11/12/2020									
3/1/2021						10.3	50.7	31.9	
3/2/2021									34.2
3/3/2021	0.96 (J)	5.2		2.5	2.4				
3/4/2021			8.7						
8/19/2021						9.6	50.4	31.7	
8/20/2021									26.5
8/26/2021	0.98 (J)								
8/27/2021		5.1		2.7	2.4				
9/1/2021			9.5						
9/3/2021									
2/8/2022						9.4			25.6
2/9/2022	0.87 (J)	5.1	9.8	2.8	2.3		49.3	30.8	
2/10/2022									
2/11/2022									
8/30/2022	0.77 (J)	5.7	7.3	3					23.5
8/31/2022					2.4	9.6	51.8	30.8	

					, , .			
	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52			
6/1/2016								
6/2/2016								
6/6/2016								
6/7/2016								
7/25/2016								
7/26/2016								
7/27/2016								
7/28/2016								
8/30/2016								
8/31/2016								
9/1/2016	96.8							
9/13/2016								
9/14/2016		23.5						
9/15/2016								
9/16/2016								
9/19/2016								
11/1/2016								
11/2/2016								
11/3/2016								
11/4/2016		23.7						
11/14/2016								
11/15/2016								
11/16/2016	107							
11/28/2016								
12/15/2016		23.1						
1/10/2017		20.1						
1/11/2017								
1/12/2017								
1/13/2017								
1/16/2017		23.3						
2/21/2017		20.0						
2/22/2017								
2/24/2017								
2/27/2017	104							
2/28/2017								
3/1/2017								
3/2/2017								
3/3/2017		25.1						
3/6/2017								
3/7/2017								
3/8/2017								
4/26/2017								
4/27/2017								
4/28/2017		30.7						
5/1/2017								
5/2/2017								
5/8/2017	103							
5/9/2017								
5/26/2017		26.2						
6/27/2017								
6/28/2017		26.1						
6/29/2017								

			Fidit	rates Cherit. South	nem Company	Data. Tates Asii Fuliu i		
	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52		 	
6/30/2017								
7/11/2017								
7/13/2017	83.7							
7/17/2017								
10/3/2017		26.7						
10/4/2017								
10/5/2017								
10/10/2017								
10/11/2017	69		2.74					
10/11/2017	09		2.74	2.9				
10/16/2017				2.5				
			1.01	10.4				
11/20/2017			1.81	10.4				
1/10/2018			1.54	10.2				
1/11/2018			1.54	.05				
2/19/2018				<25				
2/20/2018			1.71					
4/2/2018								
4/3/2018			1.4	6.3				
4/4/2018	51.9							
6/5/2018								
6/6/2018								
6/7/2018		25						
6/8/2018								
6/11/2018								
6/28/2018			1.4	6.7				
8/6/2018								
8/7/2018			1.2	6.3				
9/19/2018	51.9							
9/24/2018			1.1	5.7				
9/25/2018								
9/26/2018								
10/1/2018		25						
10/2/2018								
2/25/2019								
3/26/2019				5.6				
3/27/2019	54.2		1.5					
3/28/2019								
3/29/2019		23.5 (J)						
4/1/2019								
4/2/2019								
4/3/2019								
6/12/2019								
9/24/2019		26.4						
9/25/2019								
9/26/2019								
10/8/2019								
10/9/2019	64.2		2.4	4.9				
3/17/2020	70.4							
3/18/2020								
3/19/2020		27.4						
3/24/2020				4.8				
3/25/2020			2.7					

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	105				
8/27/2020					52.3
8/28/2020	102				
9/22/2020					53.5
9/23/2020	104	26.3			
9/24/2020			3.7	4.4	
9/25/2020					
10/7/2020	105				53.8
11/12/2020	110				53.6
3/1/2021					50.6
3/2/2021	110				
3/3/2021		25.6			
3/4/2021			8.2	4.6	
8/19/2021					
8/20/2021					47.9
8/26/2021			14.1		
8/27/2021	108	22.6			
9/1/2021					
9/3/2021				5.6	
2/8/2022			15.2	6	
2/9/2022	109	23.4			42.2
2/10/2022					
2/11/2022					
8/30/2022		25.4			
8/31/2022	110		16.3	6.2	41.8

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/1/2016	1.3	1.6	1.3						
6/2/2016				4.3	7.2	3.7	4.1	1.9	1.4
6/6/2016									
6/7/2016									
7/25/2016		1.4	1.3					1.7	
7/26/2016	1.2			4.4	6.6	3.6	4		1.6
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	1.1	1.3							
9/14/2016			1.3	3.8	6.6	3.4			
9/15/2016							4.2		1.5
9/16/2016									
9/19/2016								1.6	
11/1/2016	1.3		1.4					1.8	1.7
11/2/2016	1.5		1.4		7.6	4.5	4.9	1.0	1.7
					7.0	4.5	4.5		
11/3/2016		1.6		4.0					
11/4/2016		1.6		4.8					
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017							4.1		
1/11/2017	1.1		1.1						1.2
1/12/2017				3.8	6.8				
1/13/2017						4.2			
1/16/2017		1.4						1.7	
2/21/2017								1.7	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017			1.1						
3/2/2017	1	1.3							1.2
3/3/2017									
3/6/2017						3.6			
3/7/2017				4.5	6.8				
3/8/2017							4.2		
4/26/2017			1.1				4.1	1.7	1.2
4/27/2017	1	1.3							
4/28/2017									
5/1/2017					7.2	4.3			
5/2/2017				4.6					
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	1.1	1.4		4.3	7				
6/28/2017			1.2						1.3
6/29/2017						4.2			

		YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/30/20	017							3.7	1.8	
7/11/20	017									
7/13/20	017									
7/17/20	017									
10/3/20	017	1.1	1.7		4.2	6.5				
10/4/20				1.2					1.8	1.5
10/5/20							4.7	3.8		
10/10/2							,	0.0		
10/11/2										
10/11/2										
10/16/2										
11/20/2										
1/10/20										
1/11/20										
2/19/20										
2/20/20										
4/2/20										
4/3/20	18									
4/4/20	18									
6/5/20	18	1.1								
6/6/20	18		1.4			4.7				
6/7/20	18				4.5		4.4			1.2
6/8/20	18			1.2				3.4		
6/11/20	018								2	
6/28/20	018									
8/6/20	18									
8/7/20	18									
9/19/20										
9/24/20										
9/25/20										
9/26/20					5.1	4.8	4.8			
10/1/20		1.1	1.4	1.2				3.8		1.5
10/2/20									1.8	
2/25/20										
3/26/20										
3/27/20										
3/28/20		1.4	1.5							
3/29/20								4.2		
4/1/20				1.1				4.2	1.7	1.2
4/2/20									1.7	1.2
4/3/20					4.2	4	4.3			
6/12/20					4.4	4	4.5			
		1.1	1.2		4.5	2.7				
9/24/20		1.1	1.3	1.1	4.5	3.7	4 5	4.9	1.6	1 1
9/25/20				1.1			4.5	4.8	1.6	1.1
9/26/20										
10/8/20										
10/9/20										
3/17/20										
3/18/20			1.4					5.2		
3/19/20		1.1		1.1					1.8	1.2
3/24/20					4.3	3.5				
3/25/20	020						3.9			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				4.2	3.6	4.5			
9/23/2020	0.99 (J)	1.2	1						1.1
9/24/2020								1.5	
9/25/2020							5.3		
10/7/2020									
11/12/2020									
3/1/2021								1.6	
3/2/2021				4.3	3.2		4.9		
3/3/2021	0.96 (J)	1.2	0.99 (J)			4.1			1.1
3/4/2021									
8/19/2021	1.1	1.3					5	1.6	1.1
8/20/2021									
8/26/2021				4.3	3.4	4.4			
8/27/2021			1.1						
9/1/2021									
9/3/2021									
2/8/2022									
2/9/2022	1	1.3	1.1						1.1
2/10/2022				4.4	3.2		4.7		
2/11/2022						4.1		2.1	
8/30/2022	1.3			4.4	3.5				
8/31/2022		1.5	1.3			4.4	4.6	1.8	1.3

		YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/	/1/2016									
6/	/2/2016									
6/	/6/2016	6.4	6.8							
6/	/7/2016			2.8	4.5	1.9				
	/25/2016									
	/26/2016									
	/27/2016	6.2	6.7		4.5	1.9				
	/28/2016			2.6						
	/30/2016						5.2			
	/31/2016						0.2	5.8	13	4
	/1/2016							0.0	.0	
	/13/2016									
	/14/2016									
	/15/2016									
	/16/2016	6.1			4.5					
		0.1	7	2.4	4.5	1.0				
	/19/2016		7	2.4		1.9				
	1/1/2016					0.0				
	1/2/2016					2.6				
	1/3/2016	7.4	7.5	2.9	5.4					
	1/4/2016									
	1/14/2016						6.4	5.8		
	1/15/2016								14	
	1/16/2016									
	1/28/2016									4.2
	2/15/2016									
	/10/2017									
	/11/2017	6.1	6.5		4.7					
	/12/2017									
1/	/13/2017			2.5		2.3				
1/	/16/2017									
2/	/21/2017									
2/	/22/2017									3.7
2/	/24/2017						5.5			
2/	/27/2017							5		
2/	/28/2017								12	
3/	/1/2017	6	6.9							
	/2/2017				4.8					
	/3/2017									
3/	/6/2017			2.1		1.9				
3/	/7/2017									
3/	/8/2017									
4/	/26/2017	6.5	7	2.1		2				
4/	/27/2017									
4/	/28/2017									
5/	/1/2017									
5/	/2/2017				4.6					
5/	/8/2017						5.8		13	4.2
	/9/2017							4.6		
	/26/2017									
	/27/2017									
	/28/2017	6.4	7							
	/29/2017			2.8	4.5	2.6				

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/30/2017									
7/11/2017						5.8			
7/13/2017							4.7	13	
7/17/2017									3.8
10/3/2017			2.2						
10/4/2017	6.8			4.7	2.6				
10/5/2017		7							
10/10/2017		•				5.9	4.5	14	
10/11/2017						0.0		• •	
10/12/2017									
10/16/2017									4.2
11/20/2017									7.2
1/10/2018									
1/11/2018									
2/19/2018									4.3
									4.3
2/20/2018						4.0			
4/2/2018						4.8	4.0		
4/3/2018							4.6		
4/4/2018								13.4	
6/5/2018			1.7						
6/6/2018					2.7				
6/7/2018		6.8							
6/8/2018									
6/11/2018	6.8			4.9					
6/28/2018									
8/6/2018									3.8
8/7/2018									
9/19/2018						4	4.7	14.2	
9/24/2018									
9/25/2018	7.8	7.9	2.2	5.6	3.6				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019									4.1
3/26/2019									
3/27/2019						4.3	4.6	14	
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			2.5	4.8					
4/3/2019	6.3	6.9			3.1				
6/12/2019									4.7
9/24/2019			3.1						
9/25/2019				5.7	2.8				
9/26/2019	7.1	7							
10/8/2019						4.4		14.8	5.1
10/9/2019							5.1		
3/17/2020						4.1	4.6	14	4.8
3/18/2020									
3/19/2020									
3/24/2020	6.8	7	2.8	5	2.7				
3/25/2020	-		-						

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						4.2		14.4	4.2
9/23/2020	7.2	7.2		6.6			4.9		
9/24/2020			2		2.7				
9/25/2020									
10/7/2020									
11/12/2020									
3/1/2021						3.7	5	14	
3/2/2021									4.1
3/3/2021	7.2	7		7.1	2.7				
3/4/2021			1.8						
8/19/2021						3.5	4.1	13	
8/20/2021									5.2
8/26/2021	7.3								
8/27/2021		7.4		8.5	2.8				
9/1/2021			1.8						
9/3/2021									
2/8/2022						3.2			5.7
2/9/2022	7	7.5	1.7	10.9	2.8		4.9	13.5	
2/10/2022									
2/11/2022									
8/30/2022	7	7.9	2.4	12					6.3
8/31/2022					2.9	3.5	5.4	14.5	

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	37				
9/13/2016					
9/14/2016		1.1			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		1.4			
11/14/2016					
11/15/2016					
11/16/2016					
11/28/2016					
12/15/2016		2.9			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		0.98			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	33				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		1.1			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		0.91			
5/1/2017					
5/2/2017					
5/8/2017	33				
5/9/2017					
5/26/2017		0.93			
6/27/2017					
6/28/2017		1			
6/29/2017					

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/30/2017					
7/11/2017					
7/13/2017	32				
7/17/2017					
10/3/2017		1.2			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	29		2.4		
10/12/2017				3.8	
10/16/2017					
11/20/2017			1.8	4.4	
1/10/2018				4.6	
1/11/2018			1.6		
2/19/2018				4.6	
2/20/2018			2	4.0	
4/2/2018			2		
4/3/2018			3.3	5.9	
4/4/2018	26.6		0.0	5.5	
6/5/2018	20.0				
6/6/2018					
6/7/2018		1			
		1			
6/8/2018					
6/11/2018			2.1	F	
6/28/2018			2.1	5	
8/6/2018			1.0	4.0	
8/7/2018	00.5		1.2	4.3	
9/19/2018	26.5				
9/24/2018			1.3	4.9	
9/25/2018					
9/26/2018					
10/1/2018		1.1			
10/2/2018					
2/25/2019					
3/26/2019				4.4	
3/27/2019	20.9		1.4		
3/28/2019		10			
3/29/2019		1.2			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
9/24/2019		0.95 (J)			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	25		2.1	5.1	
3/17/2020	24.8				
3/18/2020					
3/19/2020		0.97 (J)			
3/24/2020				4.7	
3/25/2020			1.9		

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	25.8				
8/27/2020					3.9
8/28/2020	25.9				
9/22/2020					4.1
9/23/2020	28.1	0.88 (J)			
9/24/2020			2.7	5	
9/25/2020					
10/7/2020	28.2				4
11/12/2020	26.7				3.8
3/1/2021					3.7
3/2/2021	27.4				
3/3/2021		0.86 (J)			
3/4/2021			4.9	4.9	
8/19/2021					
8/20/2021					3.1
8/26/2021			7.2		
8/27/2021	29.3	0.99 (J)			
9/1/2021					
9/3/2021				5.5	
2/8/2022			7.4	6.2	
2/9/2022	28.2	1 (J)			3.2
2/10/2022					
2/11/2022					
8/30/2022		1.2			
8/31/2022	29.9		6.7	6.3	3.4

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/1/2016	0.12 (J)	<0.1	0.15 (J)						
6/2/2016				<0.1	0.11 (J)	<0.1	<0.1	<0.1	0.62
6/6/2016									
6/7/2016									
7/25/2016		0.06 (J)	0.14 (J)					0.06 (J)	
7/26/2016	0.08 (J)			<0.1	0.05 (J)	<0.1	0.02 (J)		0.49
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	0.11 (J)	<0.1							
9/14/2016			0.18 (J)	<0.1	0.04 (J)	<0.1			
9/15/2016			. ,		` '		<0.1		0.54
9/16/2016									
9/19/2016								<0.1	
11/1/2016	<0.1		<0.1					<0.1	0.68
11/2/2016	-0.1		-0.1		<0.1	<0.1	<0.1	-0.1	0.00
11/3/2016					~0.1	~0.1	~0.1		
		-0.1		-0.1					
11/4/2016		<0.1		<0.1					
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017							<0.1		
1/11/2017	0.05 (J)		0.09 (J)						0.49
1/12/2017				<0.1	0.04 (J)				
1/13/2017						<0.1			
1/16/2017		<0.1						<0.1	
2/21/2017								<0.1	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017			<0.1						
3/2/2017	<0.1	<0.1							0.48
3/3/2017									
3/6/2017						<0.1			
3/7/2017				<0.1	<0.1				
3/8/2017							<0.1		
4/26/2017			0.08 (J)				<0.1	<0.1	0.48
4/27/2017	0.04 (J)	0.01 (J)							
4/28/2017	. ,	. ,							
5/1/2017					<0.1	<0.1			
5/2/2017				<0.1					
5/8/2017				-					
5/9/2017									
5/9/2017									
6/27/2017	<0.1	<0.1		<0.1	<0.1				
	>U. I	>U. I	0.12 (1)	5U. I	5U. I				0.47
6/28/2017			0.12 (J)			-0.1			0.47
6/29/2017						<0.1			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/30/2017							<0.1	<0.1	
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	<0.1	<0.1		<0.1	<0.1				
10/4/2017			<0.1					<0.1	<0.1
10/5/2017						<0.1	<0.1		
10/10/2017						30.1	-0.1		
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
3/27/2018		<0.1					<0.1	<0.1	
3/28/2018			<0.1						0.56
3/29/2018	<0.1			<0.1	<0.1	<0.1			
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018	0.055 (J)								
6/6/2018		<0.1			0.15 (J)				
6/7/2018				<0.1	, ,	<0.1			0.48
6/8/2018			0.2 (J)				<0.1		
6/11/2018			0.2 (0)					<0.1	
6/28/2018								-0.1	
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				<0.1	<0.1	<0.1			
10/1/2018	<0.1	<0.1	<0.1				<0.1		0.44
10/2/2018								<0.1	
2/25/2019									
2/26/2019							<0.1	<0.1	
2/27/2019	0.052 (J)	<0.1	0.13 (J)						0.53
3/4/2019				<0.1	0.19 (J)	<0.1			
3/5/2019									
3/6/2019									
3/26/2019									
3/27/2019									
3/28/2019	0.036 (J)	<0.1							
3/29/2019							<0.1		
4/1/2019			0.1 (J)					<0.1	0.45
4/2/2019			\-/						
4/3/2019				<0.1	0.047 (J)	<0.1			
6/12/2019					,(J)				
8/19/2019									
8/20/2019									
0/20/2019									

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
8/21/2019									
9/24/2019	0.063 (J)	<0.1		<0.1	0.05 (J)				
9/25/2019			0.1 (J)			<0.1	<0.1	<0.1	0.46
9/26/2019									
10/8/2019									
10/9/2019									
2/10/2020	0.061 (J)	<0.1							
2/11/2020			0.094 (J)						
2/12/2020				<0.1	<0.1	<0.1	<0.1	<0.1	0.4
3/17/2020									
3/18/2020		<0.1					<0.1		
3/19/2020	0.064 (J)		0.11 (J)					<0.1	0.51
3/24/2020				<0.1	<0.1				
3/25/2020						<0.1			
7/6/2020									
8/26/2020									
8/27/2020									
8/28/2020									
9/22/2020				<0.1	0.056 (J)	<0.1			
9/23/2020	0.058 (J)	<0.1	0.098 (J)						0.47
9/24/2020								<0.1	
9/25/2020							<0.1		
10/7/2020									
11/12/2020									
2/8/2021				<0.1	0.055 (J)				
2/9/2021			.0.4			<0.1	.0.4		0.40
2/10/2021			<0.1				<0.1	-0.1	0.43
2/11/2021	0.069 (1)	-0.1						<0.1	
2/12/2021 3/1/2021	0.068 (J)	<0.1						<0.1	
3/2/2021				<0.1	<0.1		<0.1	<0.1	
3/3/2021	0.078 (J)	<0.1	0.1	~0.1	~0.1	<0.1	~0.1		0.44
3/4/2021	0.070 (3)	-0.1	0.1			30.1			0.44
8/19/2021	0.074 (J)	<0.1					<0.1	<0.1	0.47
8/20/2021	0.074 (0)	-0.1					-0.1	-0.1	0.47
8/26/2021				<0.1	0.061 (J)	<0.1			
8/27/2021			0.12						
9/1/2021									
9/3/2021									
2/8/2022									
2/9/2022	0.057 (J)	<0.1	0.097 (J)						0.43
2/10/2022				<0.1	0.055 (J)		<0.1		
2/11/2022						<0.1		<0.1	
8/30/2022	0.093 (J)			<0.1	0.085 (J)				
8/31/2022		0.065 (J)	0.13			0.061 (J)	0.053 (J)	0.06 (J)	0.42

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	GWA-2 (bg)	YGWC-45	YGWC-44
6/1/2016									
6/2/2016									
6/6/2016	<0.1	<0.1							
6/7/2016			<0.1	<0.1	<0.1				
7/25/2016									
7/26/2016									
7/27/2016	<0.1	<0.1		<0.1	<0.1				
7/28/2016			0.02 (J)						
8/30/2016						0.09 (J)			
8/31/2016							0.14 (J)	0.11 (J)	<0.1
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	<0.1			<0.1					
9/19/2016		<0.1	0.02 (J)		<0.1				
11/1/2016									
11/2/2016					<0.1				
11/3/2016	<0.1	<0.1	<0.1	<0.1					
11/4/2016									
11/14/2016						0.18 (J)		0.71	
11/15/2016						,			0.12 (J)
11/16/2016									()
11/28/2016							0.12 (J)		
12/15/2016							(-)		
1/10/2017									
1/11/2017	<0.1	<0.1		<0.1					
1/12/2017									
1/13/2017			<0.1		<0.1				
1/16/2017									
2/21/2017									
2/22/2017							0.09 (J)		
2/24/2017						0.05 (J)	0.00 (0)		
2/27/2017						0.00 (0)		0.22 (J)	
2/28/2017								0.22 (0)	0.07 (J)
3/1/2017	<0.1	<0.1							0.07 (0)
3/2/2017	-0.1	·0.1		<0.1					
3/3/2017				-0.1					
3/6/2017			<0.1		<0.1				
3/7/2017			-0.1		-0.1				
3/8/2017									
4/26/2017	<0.1	<0.1	0.04 (J)		<0.1				
4/27/2017	-0.1	40.1	0.04 (0)		10.1				
4/28/2017									
5/1/2017									
5/1/2017				<0.1					
				~ 0.1		0.03 (1)	0.05 (1)		0.04 (1)
5/8/2017						0.03 (J)	0.05 (J)	0.271)	0.04 (J)
5/9/2017								0.2 (J)	
5/26/2017									
6/27/2017	-0.4	-0.1							
6/28/2017	<0.1	<0.1	-0.1	-0.1	-0.1				
6/29/2017			<0.1	<0.1	<0.1				

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	GWA-2 (bg)	YGWC-45	YGWC-44
6/30/2017									
7/11/2017						0.07 (J)			
7/13/2017								0.11 (J)	<0.1
7/17/2017							0.14 (J)		
10/3/2017			<0.1						
10/4/2017	<0.1			<0.1	<0.1				
10/5/2017		<0.1							
10/10/2017						<0.1		0.39	<0.1
10/11/2017									
10/12/2017									
10/16/2017							0.12 (J)		
11/20/2017							· /		
1/10/2018									
1/11/2018									
2/19/2018							0.17		
2/20/2018							0		
3/27/2018									
3/28/2018	<0.1	<0.1		<0.1					
3/29/2018	30.1	30.1	<0.1	40.1	<0.1				
4/2/2018			~0.1		~0.1	<0.1			
4/3/2018						~0.1		<0.1	
								~ 0.1	-0.1
4/4/2018			0.12 (1)						<0.1
6/5/2018			0.13 (J)		-0.1				
6/6/2018		-0.4			<0.1				
6/7/2018		<0.1							
6/8/2018	-0.4			-0.4					
6/11/2018	<0.1			<0.1					
6/28/2018							0.007 (1)		
8/6/2018							0.087 (J)		
8/7/2018									
9/19/2018						<0.1		<0.1	<0.1
9/24/2018	.0.4	.0.4	0.40						
9/25/2018	<0.1	<0.1	0 (J)	<0.1	<0.1				
9/26/2018									
10/1/2018									
10/2/2018							0.1471)		
2/25/2019 2/26/2019							0.14 (J)		
2/27/2019									
3/4/2019			0.00	.0.4	.0.4				
3/5/2019	<0.1	-0.1	0.32	<0.1	<0.1				
3/6/2019		<0.1							
3/26/2019						0.004 (1)		0.40 (1)	
3/27/2019						0.081 (J)		0.18 (J)	<0.1
3/28/2019									
3/29/2019									
4/1/2019			0.40 ("	.0.4					
4/2/2019	-0.1	-0.1	0.12 (J)	<0.1	-0.4				
4/3/2019	<0.1	<0.1			<0.1		0.40 (1)		
6/12/2019							0.12 (J)		
8/19/2019						.0.4	<0.1		
8/20/2019						<0.1		<0.1	<0.1

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	GWA-2 (bg)	YGWC-45	YGWC-44
8/21/2019									
9/24/2019			0.15 (J)						
9/25/2019				<0.1	<0.1				
9/26/2019	<0.1	<0.1							
10/8/2019						0.034 (J)	0.052 (J)		<0.1
10/9/2019								<0.1	
2/10/2020									
2/11/2020	<0.1	<0.1		<0.1					
2/12/2020			0.1 (J)		<0.1				
3/17/2020			. ,			<0.1	0.053 (J)	0.076 (J)	<0.1
3/18/2020							. ,	· /	
3/19/2020									
3/24/2020	<0.1	<0.1	0.081 (J)	<0.1	<0.1				
3/25/2020			(-)						
7/6/2020									
8/26/2020							0.068 (J)		
8/27/2020						<0.1			<0.1
8/28/2020								0.07 (J)	
9/22/2020						<0.1	0.058 (J)	(-)	<0.1
9/23/2020	<0.1	<0.1		<0.1				0.082 (J)	
9/24/2020			0.079 (J)		<0.1			(-)	
9/25/2020			0.070 (0)		· · ·				
10/7/2020									
11/12/2020									
2/8/2021									
2/9/2021	<0.1	<0.1	0.092 (J)		<0.1				
2/10/2021	30.1	30.1	0.032 (0)		30.1				
2/11/2021									
2/12/2021									
3/1/2021						<0.1		0.073 (J)	<0.1
3/2/2021						~ 0.1	0.073 (J)	0.073 (3)	~0.1
3/3/2021	<0.1	<0.1		<0.1	<0.1		0.073 (3)		
3/4/2021	~0.1	~0.1	0.091 (J)	~ 0.1	~0.1				
8/19/2021			0.091 (0)			<0.1		0.075 (J)	<0.1
8/20/2021						~0.1	0.06 (J)	0.073 (3)	~0.1
8/26/2021	<0.1						0.00 (3)		
8/27/2021	~0.1	<0.1		<0.1	<0.1				
		<0.1	0.11	<0.1	~ 0.1				
9/1/2021			0.11						
9/3/2021 2/8/2022						<0.1	0.064 (1)		
	-0.1	-0.1	0.1	-0.1	-0.1	<0.1	0.064 (J)	0.063 (1)	~0.1
2/9/2022	<0.1	<0.1	0.1	<0.1	<0.1			0.063 (J)	<0.1
2/10/2022									
2/11/2022	-0.4	-0.4	0.1	-0.1			0.000 (1)		
8/30/2022	<0.1	<0.1	0.1	<0.1	-0.1	0.065 ()	0.086 (J)	0.1	0.055 (1)
8/31/2022					<0.1	0.065 (J)		0.1	0.055 (J)

					,			
	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52			
6/1/2016								
6/2/2016								
6/6/2016								
6/7/2016								
7/25/2016								
7/26/2016								
7/27/2016								
7/28/2016								
8/30/2016								
8/31/2016								
9/1/2016	0.08 (J)							
9/13/2016	. ,							
9/14/2016		0.08 (J)						
9/15/2016		,						
9/16/2016								
9/19/2016								
11/1/2016								
11/2/2016								
11/3/2016								
11/4/2016		<0.1						
11/14/2016								
11/15/2016								
11/16/2016	0.04 (J)							
11/28/2016	0.01 (0)							
12/15/2016		0.06 (J)						
1/10/2017		0.00 (0)						
1/11/2017								
1/12/2017								
1/13/2017								
1/16/2017		0.1 (J)						
2/21/2017		0.1 (0)						
2/22/2017								
2/24/2017								
2/27/2017	0.05 (J)							
2/28/2017	5.55 (5)							
3/1/2017								
3/2/2017								
3/3/2017		<0.1						
3/6/2017								
3/7/2017								
3/8/2017								
4/26/2017								
4/27/2017								
4/28/2017		0.06 (J)						
5/1/2017		` ,						
5/2/2017								
5/8/2017	0.004 (J)							
5/9/2017	\-',							
5/26/2017		0.09 (J)						
6/27/2017		.,						
6/28/2017		0.11 (J)						
6/29/2017								

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	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52			
6/30/2017								
7/11/2017								
7/13/2017	0.35							
7/17/2017								
10/3/2017		<0.1						
10/4/2017								
10/5/2017								
10/10/2017								
10/11/2017	<0.1		<0.1					
10/12/2017				<0.1				
10/16/2017								
11/20/2017			<0.1	<0.1				
1/10/2018				<0.1				
1/11/2018			<0.1					
2/19/2018				<0.1				
2/20/2018			0.23					
3/27/2018								
3/28/2018		0.31						
3/29/2018		0.01						
4/2/2018								
4/3/2018			<0.1	<0.1				
4/4/2018	<0.1							
6/5/2018								
6/6/2018								
6/7/2018		0.11 (J)						
6/8/2018		0.11(0)						
6/11/2018								
6/28/2018			<0.1	<0.1				
8/6/2018			-0.1	-0.1				
8/7/2018			0.048 (J)	<0.1				
9/19/2018	<0.1		0.040 (0)	-0.1				
9/24/2018	-0.1		<0.1	<0.1				
9/25/2018								
9/26/2018								
10/1/2018		<0.1						
10/2/2018								
2/25/2019								
2/26/2019								
2/27/2019		0.12 (J)						
3/4/2019		0.12(0)						
3/5/2019								
3/6/2019								
3/26/2019				<0.1				
3/27/2019	0.12 (J)		<0.1	•••				
3/28/2019	0.12 (0)		-0.1					
3/29/2019		0.13 (J)						
4/1/2019		00 (0)						
4/2/2019								
4/3/2019								
6/12/2019								
8/19/2019								
8/20/2019								
3.23.2010								

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	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
8/21/2019	<0.1		<0.1	<0.1	
9/24/2019		0.081 (J)			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	0.12 (J)		<0.1	<0.1	
2/10/2020					
2/11/2020		0.075 (J)			
2/12/2020			<0.1	<0.1	
3/17/2020	<0.1				
3/18/2020					
3/19/2020		0.093 (J)			
3/24/2020				<0.1	
3/25/2020			<0.1		
7/6/2020	0.12				
8/26/2020					
8/27/2020					<0.1
8/28/2020	0.12				
9/22/2020					<0.1
9/23/2020	0.12	0.08 (J)	.0.4	0.4	
9/24/2020			<0.1	<0.1	
9/25/2020	0.40				
10/7/2020	0.13				<0.1 <0.1
11/12/2020	0.084 (J)				<0.1
2/8/2021 2/9/2021					
2/10/2021		0.094 (J)	<0.1	<0.1	
2/11/2021		0.094 (3)	~ 0.1	~0.1	
2/12/2021					
3/1/2021					<0.1
3/2/2021	0.12				•••
3/3/2021	02	0.085 (J)			
3/4/2021		(0)	<0.1	<0.1	
8/19/2021					
8/20/2021					<0.1
8/26/2021			0.063 (J)		
8/27/2021	0.13	0.12	. ,		
9/1/2021					
9/3/2021				<0.1	
2/8/2022			0.052 (J)	<0.1	
2/9/2022	0.12	0.094 (J)			<0.1
2/10/2022					
2/11/2022					
8/30/2022		0.12			
8/31/2022	0.12		0.065 (J)	0.05 (J)	0.059 (J)

					,				
	GWA-2 (bg)	YGWA-1D (bg)	YGWA-3I (bg)	YGWA-1I (bg)	YGWA-5I (bg)	YGWA-3D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-14S (bg)
8/27/2008									
3/3/2009	6.35								
11/18/200	9 6.47								
3/3/2010	6.53								
3/10/2011	5.83								
9/8/2011	5.69								
3/5/2012	6.27								
9/10/2012	6.23								
2/6/2013	7.56								
8/12/2013	6.68								
2/5/2014	6.32								
8/3/2015	6.13 (D)								
2/16/2016									
6/1/2016		7.46	7.72	6.33					
6/2/2016					5.75	7.84	6.36	7.67	5.46
6/6/2016									
6/7/2016									
7/25/2016			7.74	6.21					
7/26/2016		7.43			5.72	7.88	6.22	7.66	5.45
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016		7.44		6.16					
9/14/2016		7.44	7.65	0.10	5.74		6.23	7.6	
9/15/2016			7.05		5.74	7.74	0.23	7.0	5.45
						7.74			5.45
9/16/2016									
9/19/2016		7.04				7.75			
11/1/2016		7.24	7.7			7.75	0.00	7.05	5.44
11/2/2016							6.08	7.35	5.41
11/3/2016									
11/4/2016				6.29	5.61				
11/14/201									
11/15/201									
11/16/201									
11/28/201									
12/15/201									
1/10/2017									5.37
1/11/2017		7.3	7.53			7.66			
1/12/2017					5.71			7.49	
1/13/2017							6.19		
1/16/2017				6.29					
2/21/2017									
2/22/2017	6.21								
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017			7.42						
3/2/2017		7.23		6.28		7.68			
3/3/2017									
3/6/2017							6.2		

	GWA-2 (bg)	YGWA-1D (bg)	YGWA-3I (bg)	YGWA-1I (bg)	YGWA-5I (bg)	YGWA-3D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-14S (bg)
3/7/2017					5.66			7.43	
3/8/2017									5.41
4/26/2017			7.4			7.45			5.02
4/27/2017		6.99		6.09					
4/28/2017									
5/1/2017							6.21	7.22	
5/2/2017					5.65				
5/8/2017	6.12								
5/9/2017									
5/26/2017									
6/27/2017		6.87		6.21	5.7			7.32	
6/28/2017			7.5			7.65			
6/29/2017							6.21		
6/30/2017									5.39
7/11/2017									
7/13/2017									
7/17/2017	6.03								
10/3/2017	0.00	6.81		5.98	5.79			7.48	
10/4/2017		0.01	7.45	3.90	3.79	7.49		7.40	
10/4/2017			7.43			7.45	6.16		5.49
							0.10		5.49
10/10/2017									
10/11/2017									
10/12/2017	0.10								
10/16/2017	6.12								
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018	6.13								
2/20/2018									
3/27/2018				6.25					5.47
3/28/2018			7.74			7.91			
3/29/2018		7.38			5.63		6.09	7.02	
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018		7.16							
6/6/2018				6.17				7.43	
6/7/2018					5.63	7.69	6.12		
6/8/2018			7.64						5.45
6/11/2018									
6/28/2018									
8/6/2018	6.01								
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018					5.63		5.84	7.13	
10/1/2018		6.8	7.47	5.9		7.39			5.39
10/2/2018									
2/25/2019	6.51								
2/26/2019									5.46
2/27/2019		6.84	7.54	5.8		7.55			

	GWA-2 (bg)	YGWA-1D (bg)	YGWA-3I (bg)	YGWA-1I (bg)	YGWA-5I (bg)	YGWA-3D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-14S (bg)
3/4/2019					5.75		6.18	7.46	
3/5/2019									
3/6/2019									
3/26/2019									
3/27/2019									
3/28/2019		6.99		6.15					
3/29/2019									5.34
4/1/2019			7.74			7.87			
4/2/2019									
4/3/2019					5.63		6.43	7.11	
6/12/2019	6.3								
8/19/2019	6.23								
8/20/2019									
8/21/2019									
9/24/2019		7.07		6.23	5.6			6.93	
9/25/2019			7.47			7.64	6.2		5.19
9/26/2019						7.0.	5.2		0.10
10/8/2019	6.28								
10/9/2019	0.20								
2/10/2020		7.2		6.1					
2/11/2020		7.2	7.09	0.1					
2/11/2020			7.03		5.83	7.83	6.15	7.52	5.48
3/17/2020	6.14				5.65	7.63	0.15	7.52	5.46
	6.14			6.10					F 20
3/18/2020		7.00	7.04	6.19		7.05			5.38
3/19/2020		7.03	7.31		5.04	7.65		7.04	
3/24/2020					5.81		0.00	7.34	
3/25/2020							6.26		
5/6/2020	6.24								
7/6/2020									
8/26/2020	5.67								
8/27/2020									
8/28/2020									
9/22/2020	5.78				5.99		5.8	7.19	
9/23/2020		7.15	7.37	6.01		7.57			
9/24/2020									
9/25/2020									5.44
10/7/2020									
2/8/2021					5.67				
2/9/2021							6.06		
2/10/2021			7.58			7.81			5.35
2/11/2021									
2/12/2021		7.14		6.21					
3/1/2021									
3/2/2021	5.42				5.63			7.15	5.49
3/3/2021		7.2	8.23	5.38		8.39	6.21		
3/4/2021									
8/19/2021		6.32		6.38		5.34			7.32
8/20/2021	5.86								
8/26/2021					5.51		5.82	7.16	
8/27/2021			7.39						
9/1/2021									
9/3/2021									

	GWA-2 (bg)	YGWA-1D (bg)	YGWA-3I (bg)	YGWA-1I (bg)	YGWA-5I (bg)	YGWA-3D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-14S (bg)
2/8/2022	5.83								
2/9/2022		7.12	7.66	6.24		7.97			
2/10/2022					5.14			6.99	4.5
2/11/2022							5.95		
8/30/2022	5.39	7.2			5			7.4	
8/31/2022			7.49	5.64		7.65	5.5		5.15

	YGWA-30I (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44
8/27/2008									
3/3/2009									
11/18/2009									
3/3/2010									
3/10/2011									
9/8/2011									
3/5/2012									
9/10/2012									
2/6/2013									
8/12/2013									
2/5/2014									
8/3/2015									
2/16/2016									
6/1/2016									
6/2/2016	5.75								
6/6/2016		6.17	5.71						
6/7/2016				5.62	6.1	5.77			
7/25/2016	5.82								
7/26/2016									
7/27/2016		6.14	5.46	5.59		5.79			
7/28/2016					6.12				
8/30/2016							5.75		
8/31/2016								7.15	6.01
9/1/2016								70	
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016				5.58					
	E 70 (D)	6.04	E E0	5.56	6.10	E 70			
9/19/2016	5.78 (D)	6.04	5.59		6.12	5.73			
11/1/2016	5.62					5.07			
11/2/2016						5.67			
11/3/2016		5.97	5.39	5.59	6.07				
11/4/2016									
11/14/2016							5.59	6.96	
11/15/2016									5.91
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017									
1/11/2017		6.05	5.48	5.59					
1/12/2017									
1/13/2017					6.41	5.79			
1/16/2017	5.72								
2/21/2017	5.67								
2/22/2017									
2/24/2017							5.49		
2/27/2017								6.79	
2/28/2017									5.85
3/1/2017		5.94	5.41						
3/2/2017				5.54					
3/3/2017									
3/6/2017					6.34	5.63			
					-				

	YGWA-30I (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44
3/7/2017	ravir cor (bg)	ravii (bg)	1 avv (100 (bg)	rawk tro (bg)	TGW/YZ II (bg)	1 avv. 200 (bg)	Tavvit 47 (bg)	14110 40	14110 44
3/8/2017									
4/26/2017	5.56	5.99	5.4		6.32	5.66			
	5.50	5.99	5.4		0.32	5.00			
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017				5.47					
5/8/2017							5.58		5.91
5/9/2017								6.9	
5/26/2017									
6/27/2017									
6/28/2017		6	5.36						
6/29/2017				5.56	6.47	5.85			
6/30/2017	5.72			0.00	0.17	0.00			
	5.72						E E0		
7/11/2017							5.58	0.77	5.0
7/13/2017								6.77	5.8
7/17/2017									
10/3/2017					6.56				
10/4/2017	5.87		5.32	5.57		5.83			
10/5/2017		6.11							
10/10/2017							5.49	6.9	5.76
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
3/27/2018	5.83								
3/28/2018		6.1	5.34	5.59					
3/29/2018					6.75	5.93			
4/2/2018							6.3 (O)		
4/3/2018								6.44	
4/4/2018									5.77
6/5/2018					6.09				
6/6/2018						5.86			
6/7/2018		5.98							
6/8/2018									
6/11/2018	5.69		5.28	5.58					
6/28/2018									
8/6/2018									
8/7/2018							5.40	0.47	5.77
9/19/2018							5.48	6.47	5.77
9/24/2018									
9/25/2018		5.81	4.86	5.59	6.67	5.84			
9/26/2018									
10/1/2018									
10/2/2018	5.39								
2/25/2019									
2/26/2019	5.77								
2/27/2019									

	YGWA-30I (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44
3/4/2019									
3/5/2019			5.26	5.48	7.22	6.07			
3/6/2019		5.99							
3/26/2019									
3/27/2019							5.83	7.18	6.1
3/28/2019									
3/29/2019									
4/1/2019	5.62								
4/2/2019				5.74	6.94				
4/3/2019		6.29	5.47			5.71			
6/12/2019									
8/19/2019									
8/20/2019							5.58	6.48	5.78
8/21/2019									
9/24/2019					6.87				
9/25/2019	5.69			5.49		5.86			
9/26/2019		6.04	5.2						
10/8/2019							5.59		5.84
10/9/2019								6.55	
2/10/2020									
2/11/2020		6.07	5.3	5.58					
2/12/2020	5.8				7.13	6			
3/17/2020							5.57	6.69	5.9
3/18/2020									
3/19/2020	6								
3/24/2020		5.98	5.33	5.57	6.35	5.86			
3/25/2020									
5/6/2020									
7/6/2020									
8/26/2020									
8/27/2020							4.88		5.75
8/28/2020								6.84	
9/22/2020							5.46		5.53
9/23/2020		6.01	5.29	5.58				6.57	
9/24/2020	5.67				6.7	5.8			
9/25/2020									
10/7/2020									
2/8/2021									
2/9/2021		6.12	5.43		6.95	5.86			
2/10/2021									
2/11/2021	5.73								
2/12/2021									
3/1/2021	5.78						5.48	6.5	5.76
3/2/2021									
3/3/2021		5.89	5.31	5.52		5.89			
3/4/2021					6.8				
8/19/2021							5.5	6.13	5.73
8/20/2021									
8/26/2021			4.4						
8/27/2021		5.4		5.27		5.57			
9/1/2021					6.65				
9/3/2021									

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Prediction Limit

	YGWA-30I (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44
2/8/2022							5.4		
2/9/2022		5.98	5.28	5.53	6.84	5.91		6.15	5.73
2/10/2022									
2/11/2022	5.59								
8/30/2022		5.82	5.18	4.68	6.58				
8/31/2022	5.87					5.38	5.32	6.56	5.77

					,	-		
	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52			
8/27/2008								
3/3/2009								
11/18/2009								
3/3/2010								
3/10/2011								
9/8/2011								
3/5/2012								
9/10/2012								
2/6/2013								
8/12/2013								
2/5/2014								
8/3/2015								
2/16/2016								
6/1/2016								
6/2/2016								
6/6/2016								
6/7/2016								
7/25/2016								
7/26/2016								
7/27/2016								
7/28/2016								
8/30/2016								
8/31/2016	0.10							
9/1/2016	6.19	7.44						
9/13/2016		7.41						
9/14/2016								
9/15/2016								
9/16/2016								
9/19/2016								
11/1/2016								
11/2/2016								
11/3/2016								
11/4/2016		7.12						
11/14/2016								
11/15/2016								
11/16/2016	6.05							
11/28/2016								
12/15/2016		7.24						
1/10/2017								
1/11/2017								
1/12/2017								
1/13/2017								
1/16/2017		7.24						
2/21/2017								
2/22/2017								
2/24/2017								
2/27/2017	6.01							
2/28/2017								
3/1/2017								
3/2/2017								
3/3/2017		7.22						
3/6/2017								

					,	
	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52	
3/7/2017						
3/8/2017						
4/26/2017						
4/27/2017						
4/28/2017		7.21				
5/1/2017						
5/2/2017						
5/8/2017	6.1					
5/9/2017						
5/26/2017		7.13				
6/27/2017		-				
6/28/2017		7.06				
6/29/2017		7.00				
6/30/2017						
7/11/2017						
	6.07					
7/13/2017	6.07					
7/17/2017		0.00				
10/3/2017		6.99				
10/4/2017						
10/5/2017						
10/10/2017						
10/11/2017	5.93		6.4			
10/12/2017				5.43		
10/16/2017						
11/20/2017			6.33	5.1		
1/10/2018				4.97		
1/11/2018			6.29			
2/19/2018				5.6		
2/20/2018			7.22			
3/27/2018						
3/28/2018		7.3				
3/29/2018						
4/2/2018						
4/3/2018			6.87	5.84		
4/4/2018	6.01					
6/5/2018						
6/6/2018						
6/7/2018		7.29				
6/8/2018		1.20				
6/11/2018			6.40	5.04		
6/28/2018			6.18	5.24		
8/6/2018						
8/7/2018			6.08	5.18		
9/19/2018	6.09					
9/24/2018			5.81	5.14		
9/25/2018						
9/26/2018						
10/1/2018		7.07				
10/2/2018						
2/25/2019						
2/26/2019						
2/27/2019		7.27				

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	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
3/4/2019					
3/5/2019					
3/6/2019					
3/26/2019				5.3	
3/27/2019	6.2		5.84		
3/28/2019					
3/29/2019		7.06			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
8/19/2019					
8/20/2019					
8/21/2019	5.82		5.96	5.26	
9/24/2019		7.01			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	5.96		5.81	5.22	
2/10/2020					
2/11/2020		7.38			
2/12/2020			5.97	5.3	
3/17/2020	5.99				
3/18/2020					
3/19/2020		7.22			
3/24/2020				5.29	
3/25/2020			5.78		
5/6/2020					
7/6/2020	6.89				
8/26/2020					
8/27/2020					5.8
8/28/2020	7.05				
9/22/2020					5.91
9/23/2020	6.81	7.22			
9/24/2020			5.7	5.43	
9/25/2020					
10/7/2020	7.06				5.87
2/8/2021					
2/9/2021					
2/10/2021		7.29	5.8	5.19	
2/11/2021					
2/12/2021					
3/1/2021					5.84
3/2/2021	6.72				
3/3/2021		7.92			
3/4/2021			5.54	5.23	
8/19/2021					
8/20/2021					6.71
8/26/2021			6.91		
8/27/2021	6.83	7.14			
9/1/2021					
9/3/2021				4.75	

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
2/8/2022			5.78	5.26	
2/9/2022	6.98	5.89			5.99
2/10/2022					
2/11/2022					
8/30/2022		7.04			
8/31/2022	6.87		5.3	4.53	5.58

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/1/2016	5	4.2	12						
6/2/2016				1.9	20	8	6.6	1.3	5.8
6/6/2016									
6/7/2016									
7/25/2016		3.7	8.4					1.2	
7/26/2016	5.4			1.8	20	7.7	6.1		6.7
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	2.9	5.2							
9/14/2016	2.0	0.2	8.6	1.8	19	7.5			
9/15/2016			0.0	1.0	10	7.0	6.1		6
9/16/2016							0.1		Ü
9/19/2016								1.2	
	2.0		8.0						4.0
11/1/2016	3.9		8.9		20	0.0	0.0	1.3	4.9
11/2/2016					20	8.2	6.3		
11/3/2016		_							
11/4/2016		5		2					
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017							5.9		
1/11/2017	3.7		8.6						4.5
1/12/2017				1.9	19				
1/13/2017						8.1			
1/16/2017		7.9						<1	
2/21/2017								1.4	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017			9.3						
3/2/2017	4.6	7.4							4.4
3/3/2017									
3/6/2017						8			
3/7/2017				2.1	20				
3/8/2017							7		
4/26/2017			11				7	1.4	5.1
4/27/2017	5.2	7.4							
4/28/2017									
5/1/2017					20	8.4			
5/2/2017				2					
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	5.9	6.4		2.1	18				
6/28/2017	5.5	5.7	12	۷.1	10				5.4
6/29/2017			12			9.2			J. T
012312017						3.2			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/30/2017							6.5	<1	
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	6.6	5.9		2.3	16				
	6.6	5.9	10	2.3	10				2.2
10/4/2017			12					1.4	6.2
10/5/2017						9.6	7.9		
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018	6.4								
6/6/2018		4.4			8.3				
6/7/2018				2		8.5			6.7
6/8/2018			9.6				6.4		
6/11/2018								1.1	
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				2.3	7.9	10.2			
10/1/2018	5.6	4	9.1				6.8		7.1
10/2/2018								1	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	8	4.3							
3/29/2019							7.3		
4/1/2019			8.5				7.0	0.96 (J)	7.2
4/2/2019			0.5					0.50 (5)	7.2
					_				
4/3/2019				2.1	7	8.5			
6/12/2019									
9/24/2019	5.3	4.3		2.4	5.5				
9/25/2019			13.8			8.5	6.6	0.81 (J)	7
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020									
3/18/2020		5.3					8.1		
3/19/2020	10		12.9					1.6	9
3/24/2020				2.1	5.9				
3/25/2020				** *	-	8.8			
						0			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				2.1	5.5	8.2			
9/23/2020	8.1	3.4	16.8						6.9
9/24/2020								0.69 (J)	
9/25/2020							6.1		
10/7/2020									
11/12/2020									
3/1/2021								0.88 (J)	
3/2/2021				2.3	2.6		6		
3/3/2021	9	4.4	9.6			7.8			7
3/4/2021									
8/19/2021	8.9	4.9					6.7	1	7.5
8/20/2021									
8/26/2021				2.4	6	8.5			
8/27/2021			18.2						
9/1/2021									
9/3/2021									
2/8/2022									
2/9/2022	9.3	5.1	16						7.2
2/10/2022				2.4	4.9		6.2		
2/11/2022						7.7		2.8	
8/30/2022	10.2			2.4	5.7				
8/31/2022		4.8	13.9			8	5.8	1.1	6.9

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/1/2016									
6/2/2016									
6/6/2016	1.8	1.2							
6/7/2016			5.2	4.4	<1				
7/25/2016									
7/26/2016									
7/27/2016	1.9	1.7		4.7	0.09 (1)				
	1.9	1.7		4.7	0.08 (J)				
7/28/2016			5.1						
8/30/2016						160			
8/31/2016							190	150	29
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	1.7			4.8					
9/19/2016		1.8	4.8		0.08 (J)				
11/1/2016									
11/2/2016					0.1 (J)				
11/3/2016	1.9	0.69 (J)	5	5.3					
11/4/2016									
11/14/2016						150	200		
11/15/2016								150	
11/16/2016									
11/28/2016									36
									30
12/15/2016									
1/10/2017	4.7			5.0					
1/11/2017	1.7	<1		5.2					
1/12/2017									
1/13/2017			4.3		<1				
1/16/2017									
2/21/2017									
2/22/2017									43
2/24/2017						120			
2/27/2017							190		
2/28/2017								130	
3/1/2017	<1	1.8							
3/2/2017				5					
3/3/2017									
3/6/2017			4.5		<1				
3/7/2017									
3/8/2017									
4/26/2017	1.9	1.6	4.9		<1				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017				5					
				5		120		150	60
5/8/2017						120	100	150	60
5/9/2017							190		
5/26/2017									
6/27/2017									
6/28/2017	<1	<1							
6/29/2017			5.5	5.2	<1				

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/30/2017									
7/11/2017						110			
7/13/2017							180	150	
7/17/2017									63
10/3/2017			5.8						
10/4/2017	1.7			5.3	<1				
10/5/2017		1.6							
10/10/2017						93	180	140	
10/11/2017									
10/12/2017									
10/16/2017									62
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									64.6
2/20/2018									04.0
4/2/2018						88.8			
4/3/2018						00.0	183		
							163	127	
4/4/2018			6.1					137	
6/5/2018			6.1		0.040 (1)				
6/6/2018		0.00 (1)			0.049 (J)				
6/7/2018		0.68 (J)							
6/8/2018									
6/11/2018	0.95 (J)			5.2					
6/28/2018									
8/6/2018									42.1
8/7/2018									
9/19/2018						75	192	137	
9/24/2018									
9/25/2018	1.5	1	7	6.1	0.13 (J)				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019									42.1
3/26/2019									
3/27/2019						65.9	188	146	
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			3.8	5.1					
4/3/2019	1.3	0.82 (J)			0.12 (J)				
6/12/2019									83.4
9/24/2019			1						
9/25/2019				5.5	<1				
9/26/2019	1	0.64 (J)							
10/8/2019						52.3		142	128
10/9/2019							183		
3/17/2020						71.6	161	121	98.6
3/18/2020									
3/19/2020									
3/24/2020	0.99 (J)	<1	3	5.4	<1				
3/25/2020									

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						51.5		130	145
9/23/2020	1.1	0.53 (J)		5.1			170		
9/24/2020			3.6		<1				
9/25/2020									
10/7/2020									
11/12/2020									
3/1/2021						51.6	159	119	
3/2/2021									156
3/3/2021	1	<1		5.2	<1				
3/4/2021			4.5						
8/19/2021						52.6	149	115	
8/20/2021									121
8/26/2021	1.2								
8/27/2021		0.59 (J)		5.3	<1				
9/1/2021			5						
9/3/2021									
2/8/2022						50.9			107
2/9/2022	1.1	0.51 (J)	3.9	4.8	<1		164	121	
2/10/2022									
2/11/2022									
8/30/2022	1.3	0.78 (J)	3.2	4.7					101
8/31/2022					<1	48	177	130	

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/6/2022 4:56 PM View: Appendix III
Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	770				
9/13/2016					
9/14/2016		9.4			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		13			
11/14/2016					
11/15/2016					
11/16/2016	780				
11/28/2016					
12/15/2016		1.8			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		11			
2/21/2017					
2/22/2017					
2/24/2017	650				
2/27/2017 2/28/2017	650				
3/1/2017					
3/2/2017					
3/3/2017		8.8			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		10			
5/1/2017					
5/2/2017					
5/8/2017	770				
5/9/2017					
5/26/2017		12			
6/27/2017					
6/28/2017		11			
6/29/2017					

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/6/2022 4:56 PM View: Appendix III
Plant Yates Client: Southern Company Data: Yates Ash Pond1

				r iditi re	ates Onerit. Count	citi company	Data. Tates Asiri one			
		YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52				
6/30/2	2017									
7/11/2	2017									
7/13/2	2017	630								
7/17/2										
10/3/2			7.9							
10/4/2										
10/5/2										
)/2017									
	1/2017	540		20						
	2/2017	040		20	17					
	6/2017				.,					
	0/2017			24	71					
1/10/2				24	66					
1/11/2				23	00					
				23	E7.0					
2/19/2				00.0	57.2					
2/20/2				20.6						
4/2/20										
4/3/20				24.5	49.4					
4/4/20		430								
6/5/20										
6/6/20										
6/7/20			8.8							
6/8/20										
6/11/2										
6/28/2	2018			22	43.8					
8/6/20										
8/7/20	018			20.7	40.5					
9/19/2	2018	395								
9/24/2	2018			21.2	39.7					
9/25/2	2018									
9/26/2	2018									
10/1/2	2018		9.1							
10/2/2	2018									
2/25/2	2019									
3/26/2	2019				34.3					
3/27/2	2019	437		17.7						
3/28/2	2019									
3/29/2	2019		9							
4/1/20	019									
4/2/20	019									
4/3/20										
6/12/2										
9/24/2			9.1							
9/25/2										
9/26/2										
10/8/2										
10/9/2		<1		15	27.9					
3/17/2		439		.5	27.0					
3/18/2		-100								
3/19/2			12.4							
3/24/2			14.7		25.2					
				14.3	£J.£					
3/25/2	ZUZU			14.3						

Constituent: Sulfate as SO4 (mg/L) Analysis Run 10/6/2022 4:56 PM View: Appendix III
Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	385				
8/27/2020					144
8/28/2020	394				
9/22/2020					156
9/23/2020	430	11.8			
9/24/2020			11.7	22.9	
9/25/2020					
10/7/2020	427				156
11/12/2020	385				147
3/1/2021					139
3/2/2021	387				
3/3/2021		10.6			
3/4/2021			12	21.5	
8/19/2021					
8/20/2021					122
8/26/2021			19.2		
8/27/2021	423	16.7			
9/1/2021					
9/3/2021				21.3	
2/8/2022			14.6	17.9	
2/9/2022	415	18			119
2/10/2022					
2/11/2022					
8/30/2022		20.1			
8/31/2022	459		10.9	17.9	122

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 10/6/2022 4:56 PM View: Appendix III - Parametric

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/1/2016	120	54	150						
6/2/2016				66	160	96	46	36	130
6/6/2016									
6/7/2016									
7/25/2016		48	135					50	
7/26/2016	94			78	177	92	54		141
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	105	67							
9/14/2016			127	73	187	102			
9/15/2016							54		153
9/16/2016									
9/19/2016								35	
11/1/2016	44		75					<25	92
11/2/2016					181	115	71		
11/3/2016									
11/4/2016		60		75					
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017							45		
1/11/2017	107		148						159
1/12/2017				86	202				
1/13/2017						67			
1/16/2017		65						47	
2/21/2017								<25	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017			182						
3/2/2017	98	61							117
3/3/2017									
3/6/2017						159			
3/7/2017				108	257				
3/8/2017							178		
4/26/2017			92				52	55	181
4/27/2017	116	31							
4/28/2017									
5/1/2017					165	107			
5/2/2017				103					
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	89	42		73	189				
6/28/2017			126						169
6/29/2017						79			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
6/30/2017							45	42	
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	119	58		89	170				
10/4/2017			147					31	141
10/5/2017						95	40		
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018	107								
6/5/2018	127	00			454				
6/6/2018		96		440	151				0.5
6/7/2018				142		90			95
6/8/2018			158				114		
6/11/2018								59	
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				86	144	116			
10/1/2018	117	60	138				50		165
10/2/2018								57	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	87	87							
3/29/2019							63		
4/1/2019			19 (J)					54	149
4/2/2019									
4/3/2019				83	142	111			
6/12/2019									
9/24/2019	124	54		79	129				
9/25/2019			159			117	64	51	157
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020									
3/18/2020		35					57		
3/19/2020	116		148					47	146
3/24/2020				68	139				
3/25/2020						146			

	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-14S (bg)	YGWA-30I (bg)	YGWA-3D (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				75	104	83			
9/23/2020	108	15	155						157
9/24/2020								51	
9/25/2020							54		
10/7/2020									
11/12/2020									
3/1/2021								23	
3/2/2021				67	52		67		
3/3/2021	99	39	111			80			137
3/4/2021									
8/19/2021	105	44					54	50	144
8/20/2021									
8/26/2021				86	123	93			
8/27/2021			155						
9/1/2021									
9/3/2021									
2/8/2022									
2/9/2022	105	57	145						154
2/10/2022				77	127		56		
2/11/2022						102		66	
8/30/2022	116			86	148				
8/31/2022		46	137			92	51	33	141

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/1/2016									
6/2/2016									
6/6/2016	58	120							
6/7/2016			60	28	38				
7/25/2016									
7/26/2016									
7/27/2016	35	94		74	74				
7/28/2016			81						
8/30/2016						319			
8/31/2016							402	332	209
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016	35			67					
9/19/2016	00	92	68	0,	45				
11/1/2016		32	00		45				
11/2/2016					53				
11/3/2016	40	104	61	41	55				
	48	104	61	41					
11/4/2016						200	445		
11/14/2016						280	445	050	
11/15/2016								356	
11/16/2016									400
11/28/2016									102
12/15/2016									
1/10/2017									
1/11/2017	95	133		104					
1/12/2017									
1/13/2017			76		46				
1/16/2017									
2/21/2017									
2/22/2017									164
2/24/2017						162			
2/27/2017							346		
2/28/2017								483	
3/1/2017	79	119							
3/2/2017				77					
3/3/2017									
3/6/2017			167		164				
3/7/2017									
3/8/2017									
4/26/2017	36	162	50		34				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017				142					
5/8/2017						194		296	145
5/9/2017							388		
5/26/2017									
6/27/2017									
6/28/2017	45	98							
6/29/2017			94	53	68				

	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
6/30/2017									
7/11/2017						193			
7/13/2017							433	345	
7/17/2017									185
10/3/2017			149						
10/4/2017	45			61	54				
10/5/2017		104							
10/10/2017						175	396	311	
10/11/2017									
10/12/2017									
10/16/2017									218
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									173
2/20/2018									
4/2/2018						192			
4/3/2018						132	418		
4/4/2018							410	313	
6/5/2018			109					313	
			109		70				
6/6/2018		60			79				
6/7/2018		68							
6/8/2018	74			70					
6/11/2018	74			70					
6/28/2018									
8/6/2018									158
8/7/2018									
9/19/2018						186	413	326	
9/24/2018									
9/25/2018	63	109	122	86	73				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019									92
3/26/2019									
3/27/2019						170	383	302	
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			134	72					
4/3/2019	63	89			57				
6/12/2019									226
9/24/2019			157						
9/25/2019				81	75				
9/26/2019	72	126							
10/8/2019						172		324	276
10/9/2019							432		
3/17/2020						165	391	283	185
3/18/2020									
3/19/2020									
3/24/2020	59	91	117	71	76				
3/25/2020									

		YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44	GWA-2 (bg)
7/6	6/2020									
8/2	27/2020									
8/2	28/2020									
9/2	22/2020						141		294	281
9/2	23/2020	81	103		99			404		
9/2	24/2020			113		69				
9/2	25/2020									
10	/7/2020									
11	/12/2020									
3/1	1/2021						145	379	276	
3/2	2/2021									296
3/3	3/2021	37	95		57	53				
3/4	4/2021			110						
8/1	19/2021						134	391	333	
8/2	20/2021									254
8/2	26/2021	31								
8/2	27/2021		112		93	67				
9/1	1/2021			137						
9/3	3/2021									
2/8	8/2022						151			283
2/9	9/2022	60	103	131	81	72		400	311	
2/1	10/2022									
2/1	11/2022									
8/3	30/2022	52	100	122	81					244
8/3	31/2022					62	116	445	343	

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52			
6/1/2016								
6/2/2016								
6/6/2016								
6/7/2016								
7/25/2016								
7/26/2016								
7/27/2016								
7/28/2016								
8/30/2016								
8/31/2016								
9/1/2016	1240							
9/13/2016								
9/14/2016		152						
9/15/2016								
9/16/2016								
9/19/2016								
11/1/2016								
11/2/2016								
11/3/2016								
11/4/2016		148						
11/14/2016								
11/15/2016								
11/16/2016	1220							
11/28/2016	.220							
12/15/2016		191						
1/10/2017								
1/11/2017								
1/12/2017								
1/13/2017								
1/16/2017		180						
2/21/2017		100						
2/22/2017								
2/24/2017								
2/27/2017	1060							
2/28/2017								
3/1/2017								
3/2/2017								
3/3/2017		156						
3/6/2017								
3/7/2017								
3/8/2017								
4/26/2017								
4/27/2017								
4/28/2017		130						
5/1/2017								
5/2/2017								
5/8/2017	1160							
5/9/2017								
5/26/2017		223						
6/27/2017								
6/28/2017		166						
6/29/2017								

			Fidit	rates Cherit. South	lerii Company	Data. Tates Asii Fuliu i		
	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52			
6/30/2017								
7/11/2017								
7/13/2017	996							
7/17/2017								
10/3/2017		153						
10/4/2017								
10/5/2017								
10/10/2017								
10/11/2017	835		68					
10/12/2017				74				
10/16/2017								
11/20/2017			139	179				
1/10/2018			100	140				
1/11/2018			153	140				
2/19/2018			100	119				
			07	119				
2/20/2018			87					
4/2/2018			05	100				
4/3/2018	1470		85	106				
4/4/2018	1470							
6/5/2018								
6/6/2018								
6/7/2018		146						
6/8/2018								
6/11/2018								
6/28/2018			88	112				
8/6/2018								
8/7/2018			89	103				
9/19/2018	702							
9/24/2018			82	107				
9/25/2018								
9/26/2018								
10/1/2018		155						
10/2/2018								
2/25/2019								
3/26/2019				90				
3/27/2019	641		75					
3/28/2019								
3/29/2019		150						
4/1/2019								
4/2/2019								
4/3/2019								
6/12/2019								
9/24/2019		146						
9/25/2019								
9/26/2019								
10/8/2019								
10/9/2019	809		119	98				
3/17/2020	733							
3/18/2020								
3/19/2020		148						
3/24/2020				84				
3/25/2020			158					

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	793				
8/27/2020					349
8/28/2020	838				
9/22/2020					296
9/23/2020	832	161			
9/24/2020			170	77	
9/25/2020					
10/7/2020	842				336
11/12/2020	760				317
3/1/2021					265
3/2/2021	782				
3/3/2021		138			
3/4/2021			168	57	
8/19/2021					
8/20/2021					289
8/26/2021			249		
8/27/2021	810	150			
9/1/2021					
9/3/2021				88	
2/8/2022			248	93	
2/9/2022	846	156			278
2/10/2022					
2/11/2022					
8/30/2022		153			
8/31/2022	948		242	92	266

FIGURE E.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results Plant Yates | Client: Southern Company | Data: Yates Ash Pond1 | Printed 10/6/2022, 5:04 PM

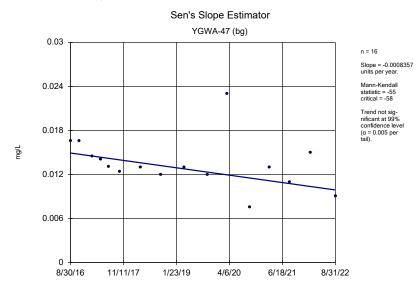
	Plant Yates	Client: Southern Company	Data: Yates	Ash Pond	Pond1 Printed 10/6/2022, 5:04 PM							
Constituent	Well		Slope	Calc.	Critical	Sig.	<u>N</u>	%NDs	Normality	<u>Xform</u>	<u>Alpha</u>	Method
Boron, total (mg/L)	YGWA-40 (bg)		-0.01529	-77	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-47 (bg)		-1.342	-95	-58	Yes	16	6.25	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-17S (bg)		0.1364	109	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-18S (bg)		-0.08039	-114	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-21I (bg)		0.9751	97	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-5D (bg)		-1.676	-100	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	GWA-2 (bg)		3.453	82	63	Yes	17	5.882	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-1D (bg)		0.6514	86	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-1I (bg)		-0.09504	-93	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-47 (bg)		-0.4528	-84	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-17S (bg)		0.5433	127	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-18I (bg)		0.1027	78	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-20S (bg)		0.1337	107	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-40 (bg)		0.326	66	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-5D (bg)		-0.7454	-124	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	GWA-2 (bg)		0.2567	74	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-3D (bg)		-0.0435	-80	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-47 (bg)		-17.58	-107	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWC-45		-5.687	-69	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-39 (bg)		-2.631	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-40 (bg)		-8.899	-89	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-5D (bg)		-2.862	-129	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-5I (bg)		0.08795	115	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	GWA-2 (bg)		17.26	87	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-1D (bg)		0.9733	121	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-3D (bg)		0.3364	89	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-3I (bg)		1.016	86	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWC-46A		-50.31	-91	-81	Yes	20	5	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-47 (bg)		-14.82	-90	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-39 (bg)		30.24	64	58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-5D (bg)		-12.99	-99	-74	Yes	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	GWA-2 (bg)		21.5	67	63	Yes	17	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

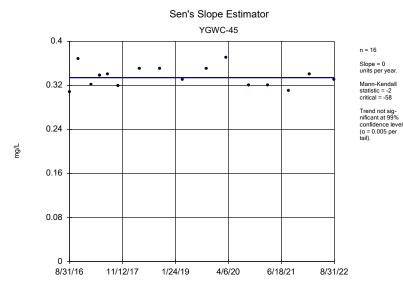
	Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 5:04 PM										
Constituent	<u>Well</u>	Slope	Calc.	Critical	Sig.	<u>N</u>	%NDs	Normality	<u>Xform</u>	<u>Alpha</u>	Method
Boron, total (mg/L)	YGWA-47 (bg)	-0.0008357	-55	-58	No	16	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWC-44	-0.02074	-55	-58	No	16	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWC-45	0	-2	-58	No	16	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-17S (bg)	0.0001704	22	74	No	19	10.53	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-18I (bg)	0	-22	-74	No	19	78.95	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-18S (bg)	0.000309	24	74	No	19	21.05	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-20S (bg)	0	-9	-74	No	19	89.47	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-21I (bg)	-0.0004731	-56	-74	No	19	57.89	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-39 (bg)	0.01331	56	58	No	16	6.25	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-40 (bg)	-0.01529	-77	-58	Yes	16	0	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-4I (bg)	0	1	74	No	19	68.42	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-5D (bg)	0.0003037	31	74	No	19	10.53	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-5I (bg)	0	-25	-74	No	19	63.16	n/a	n/a	0.01	NP
Boron, total (mg/L)	GWA-2 (bg)	0	23	63	No	17	64.71	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-14S (bg)	-0.000665	-40	-74	No	19	10.53	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-1D (bg)	0.0008221	34	74	No	19	36.84	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-1I (bg)	0	-8	-74	No	19	73.68	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-2I (bg)	0	-6	-74	No	19	78.95	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-30I (bg)	0	-19	-74	No	19	84.21	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-3D (bg)	0	0	74	No	19	57.89	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWA-3I (bg)	0	-17	-74	No	19	89.47	n/a	n/a	0.01	NP
Boron, total (mg/L)	YGWC-46A	0.07014	47	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-47 (bg)	-1.342	-95	-58	Yes	16	6.25	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWC-45	-0.03813	-6	-58	No	16	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-17S (bg)	0.1364	109	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-18I (bg)	0.04637	26	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-18S (bg)	-0.08039	-114	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-20S (bg)	0.03848	54	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-21I (bg)	0.9751	97	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-39 (bg)	1.273	55	58	No	16	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-40 (bg)	-0.6546	-42	-58	No	16	6.25	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-4I (bg)	0.04736	10	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-5D (bg)	-1.676	-100	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-5I (bg)	0.06231	74	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	GWA-2 (bg)	3.453	82	63	Yes	17	5.882	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-14S (bg)	0	-15	-74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-1D (bg)	0.6514	86	74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-1I (bg)	-0.09504	-93	-74	Yes	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-2I (bg)	0.08578	13	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-30I (bg)	0.0125	31	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-3D (bg)	0.4525	59	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWA-3I (bg)	0.5467	60	74	No	19	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWC-46A	2.783	78	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	YGWC-52	-6.094	-18	-21	No	8	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-47 (bg)	-0.4528	-84	-58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWC-44	0.1746	42	58	No	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-17S (bg)	0.5433	127	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-18I (bg)	0.1027	78	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-18S (bg)	0.1557	72	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-20S (bg)	0.1337	107	74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-21I (bg)	-0.1148	-56	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-39 (bg)	0.768	51	58	No	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-40 (bg)	0.326	66	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-4I (bg)	0.08123	41	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-5D (bg)	-0.7454	-124	-74	Yes	19	0	n/a	n/a	0.01	NP

Appendix III Trend Tests - Prediction Limit Exceedances - All Results Plant Yates Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 5:04 PM

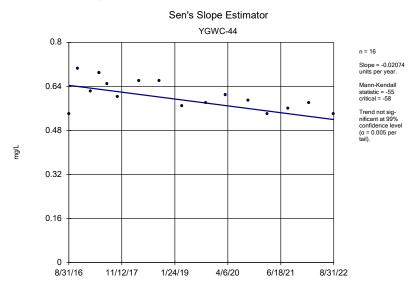
	Plant Yates Client: Southern Compan	stes Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 5:04 PM									
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	<u>Xform</u>	<u>Alpha</u>	Method
Chloride, Total (mg/L)	YGWA-5I (bg)	0	5	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	GWA-2 (bg)	0.2567	74	63	Yes	17	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-14S (bg)	0.1251	51	74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-1D (bg)	0	-37	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-1I (bg)	-0.01802	-38	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-2I (bg)	-0.02221	-34	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-30I (bg)	0	-8	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-3D (bg)	-0.0435	-80	-74	Yes	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWA-3I (bg)	-0.02929	-65	-74	No	19	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	YGWC-46A	-0.8443	-37	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-47 (bg)	-17.58	-107	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWC-45	-5.687	-69	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-17S (bg)	0.04813	32	74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-18I (bg)	-0.1345	-67	-74	No	19	21.05	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-18S (bg)	-0.1232	-53	-74	No	19	10.53	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-20S (bg)	0	42	74	No	19	68.42	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-21I (bg)	-0.2256	-45	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-39 (bg)	-2.631	-74	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-40 (bg)	-8.899	-89	-58	Yes	16	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-4I (bg)	0.04641	22	74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-5D (bg)	-2.862	-129	-74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-5I (bg)	0.08795	115	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	GWA-2 (bg)	17.26	87	63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-14S (bg)	0	-4	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-1D (bg)	0.9733	121	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-1I (bg)	-0.1053	-22	-74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-2I (bg)	1.041	62	74	No	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-30I (bg)	-0.01853	-15	-74	No	19	10.53	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-3D (bg)	0.3364	89	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWA-3I (bg)	1.016	86	74	Yes	19	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	YGWC-46A	-50.31	-91	-81	Yes	20	5	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-47 (bg)	-14.82	-90	-58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWC-44	-5.653	-31	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWC-45	-0.1836	-2	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-17S (bg)	3.694	44	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-18I (bg)	-0.8196	-19	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-18S (bg)	0.4345	10	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-20S (bg)	2.688	34	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-21I (bg)	10.54	68	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-39 (bg)	30.24	64	58	Yes	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-40 (bg)	-11.03	-58	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-4I (bg)	0	-1	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-5D (bg)	-12.99	-99	-74	Yes	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-5I (bg)	0	3	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	GWA-2 (bg)	21.5	67	63	Yes	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-14S (bg)	0.3698	12	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-1D (bg)	0.7444	13	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-1I (bg)	-2.443	-37	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-2I (bg)	-1.72	-28	-74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-30I (bg)	2.114	27	74	No	19	10.53		n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-3D (bg)	0.7739	9	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWA-3I (bg)	0.954	9	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWC-46A	-49.58	-46	-81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	YGWC-52	-36.62	-18	-21	No	8	0	n/a	n/a	0.01	NP



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Plant Yates Client: Southern Company Data: Yates Ash Pond1



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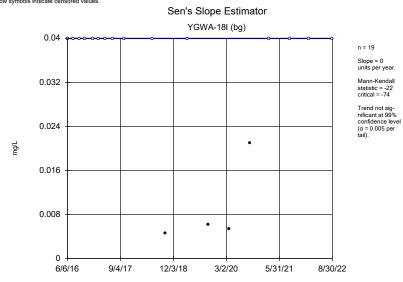
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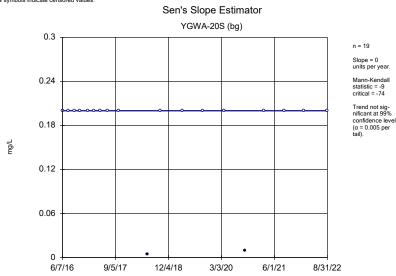
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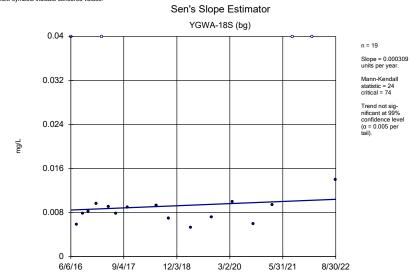
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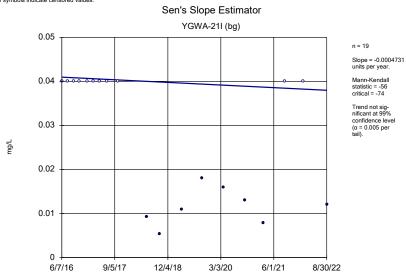
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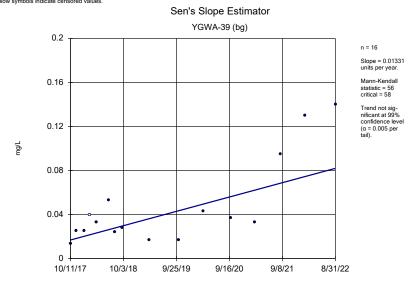


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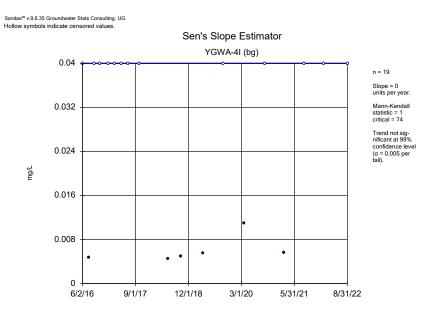
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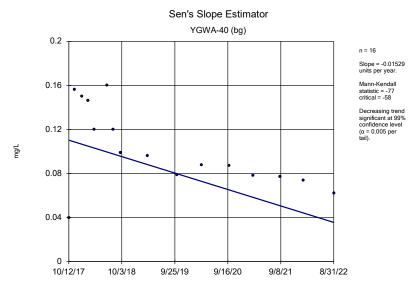
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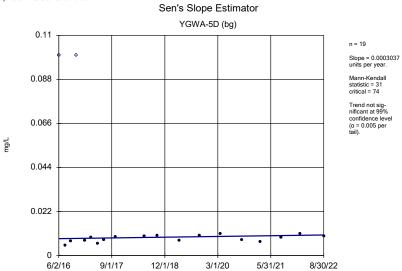


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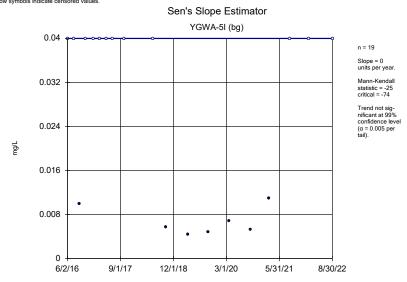
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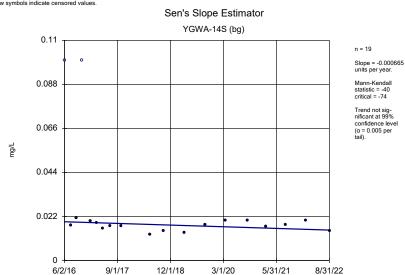
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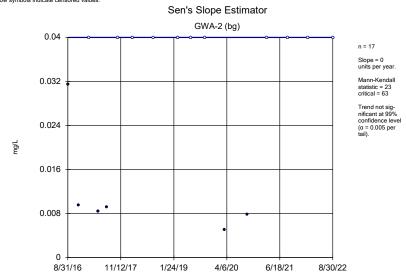
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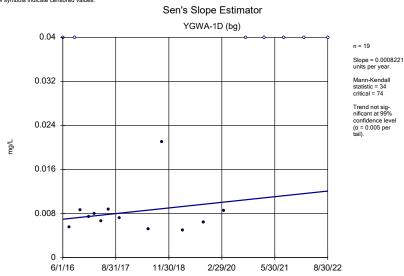
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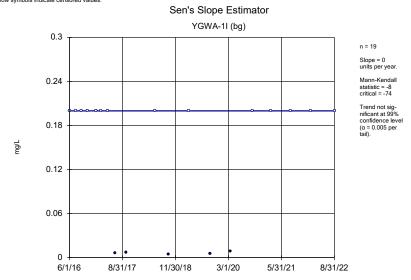
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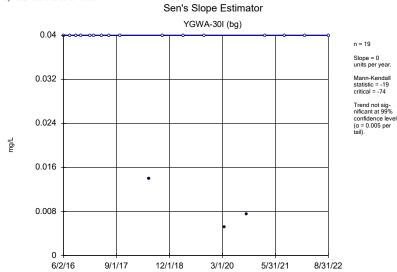
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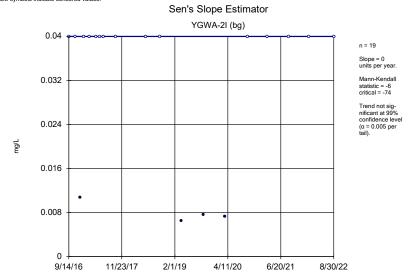
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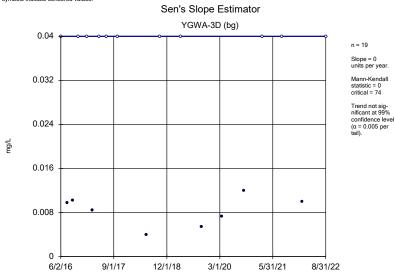
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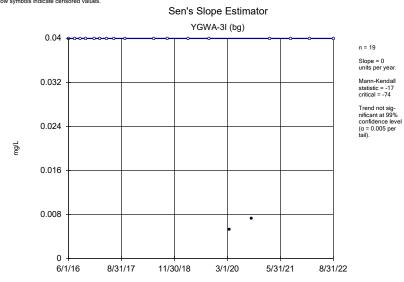


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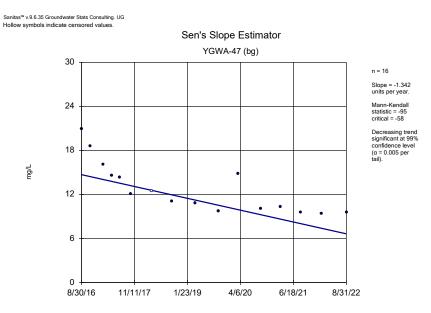
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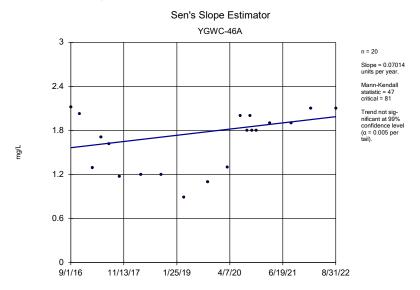
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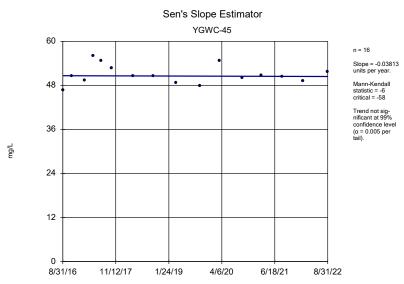
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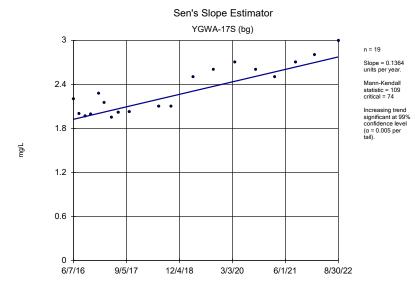
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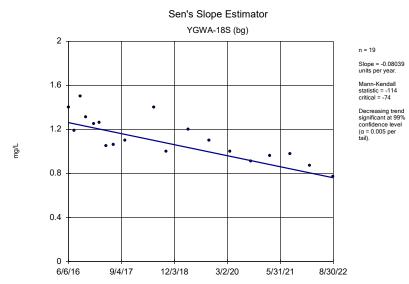
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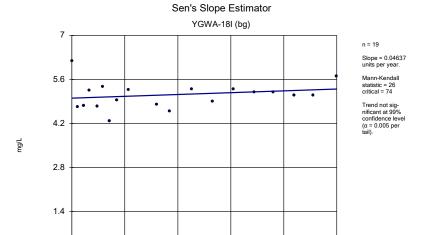
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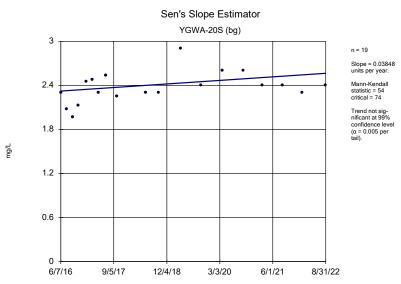
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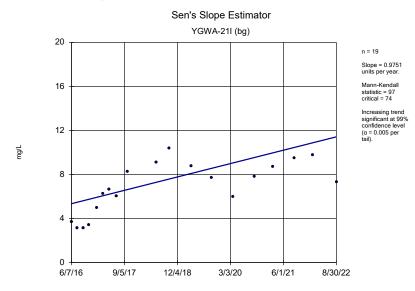
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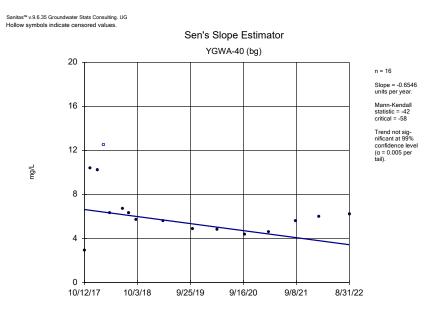
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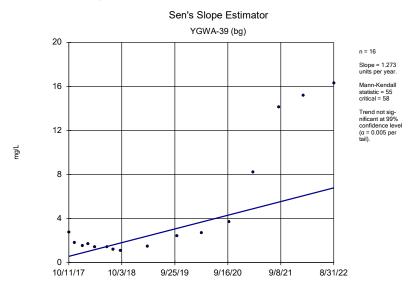
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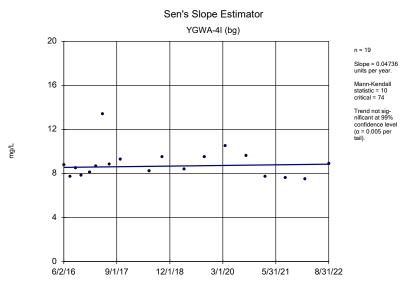
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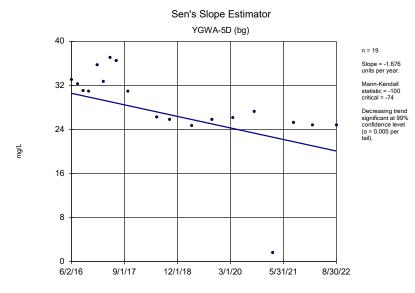
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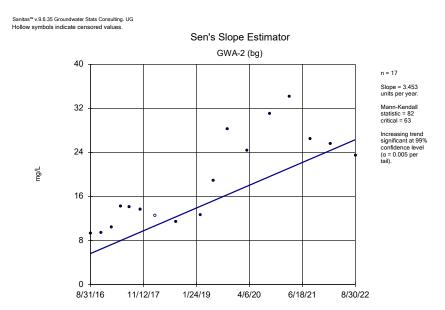
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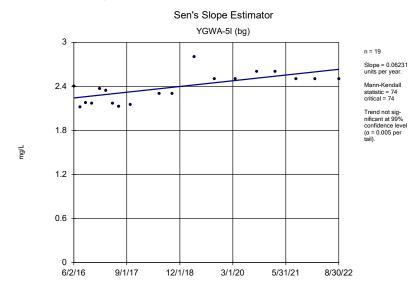
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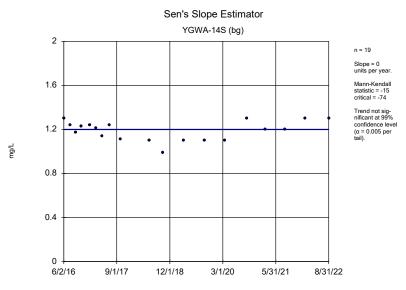
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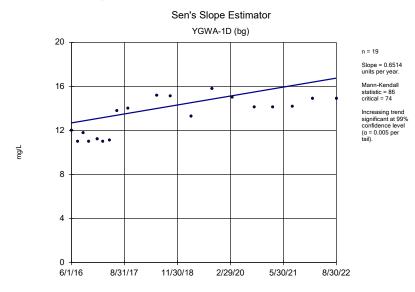
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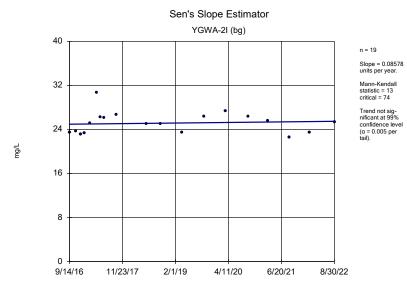
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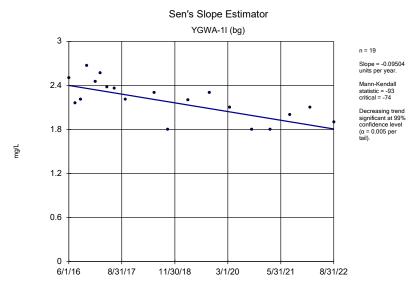
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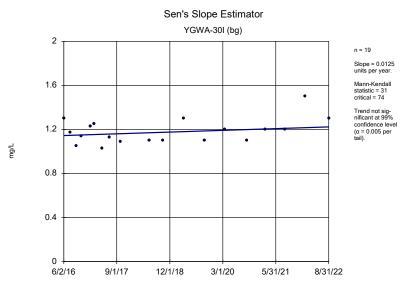
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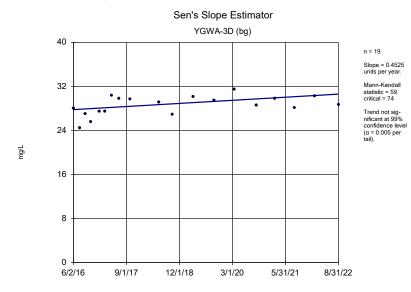
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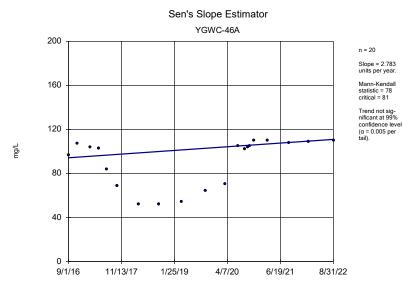
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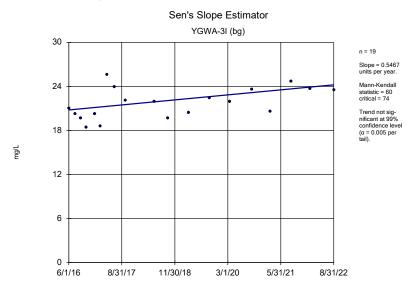
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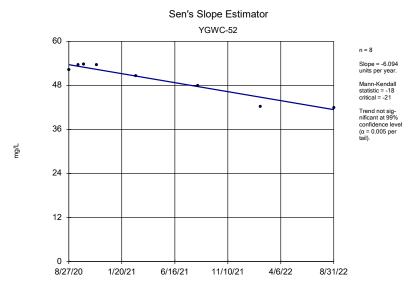
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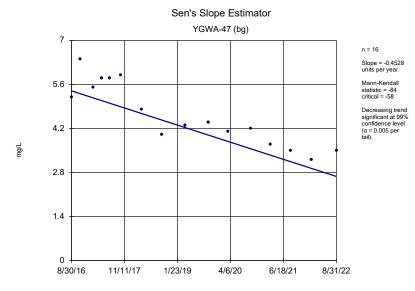
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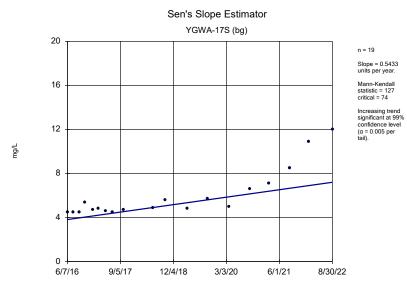
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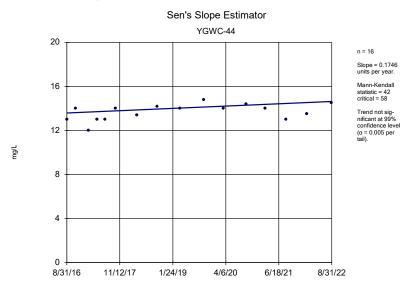
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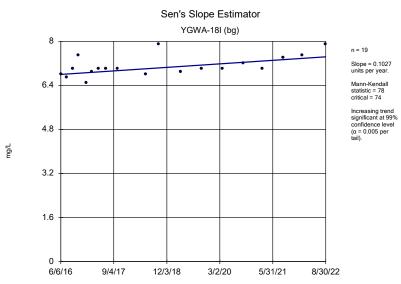
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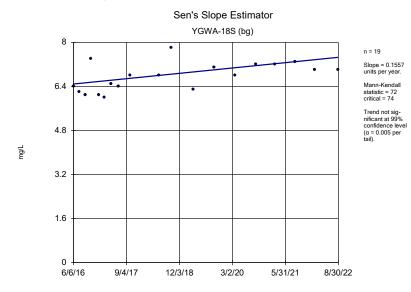
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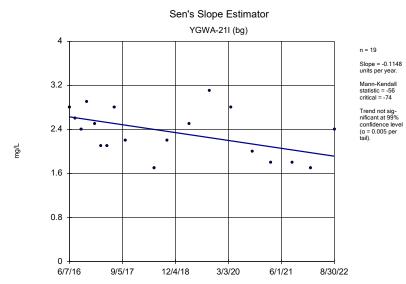
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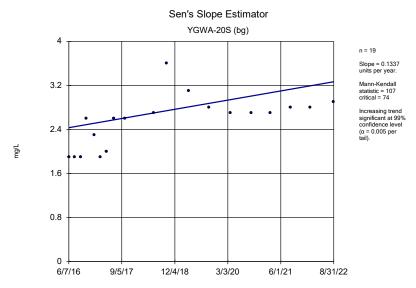
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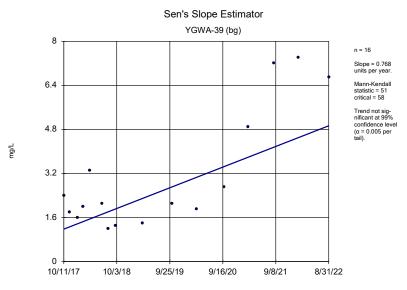
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



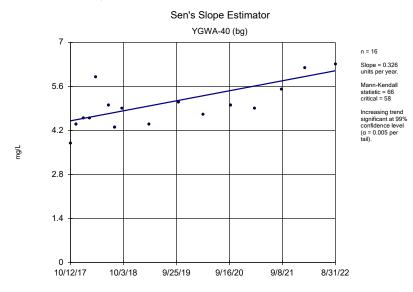
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



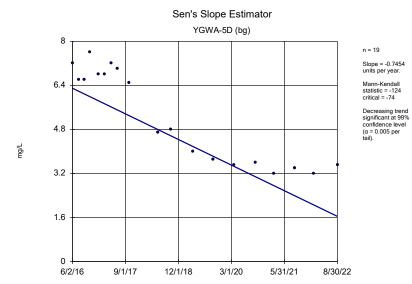
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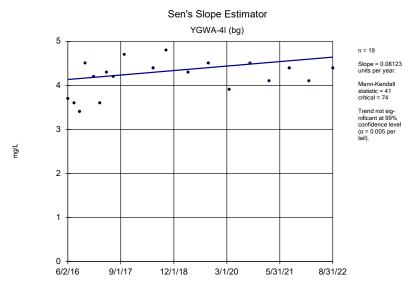
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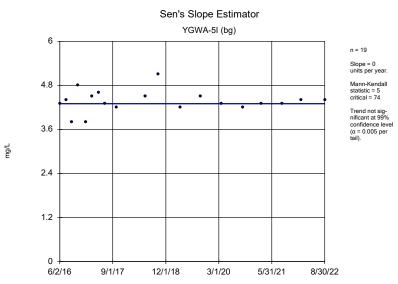
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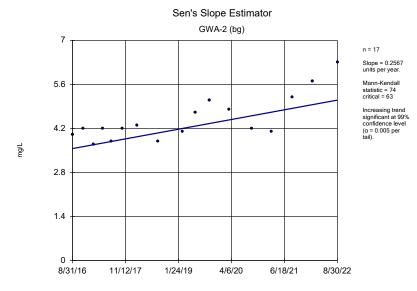
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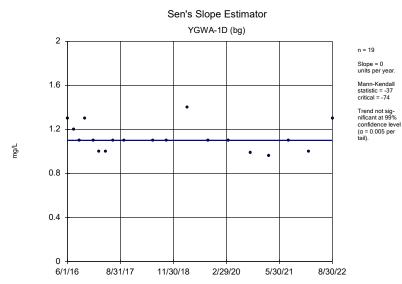
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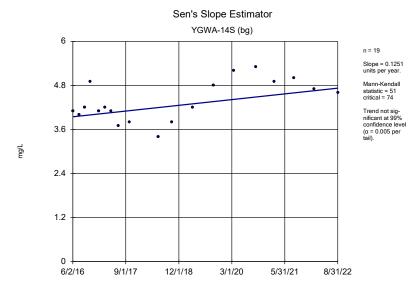
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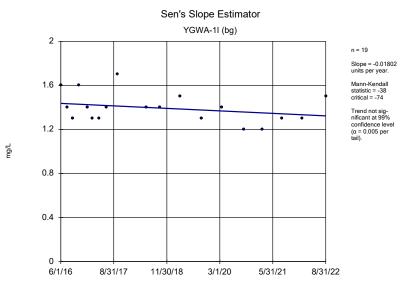
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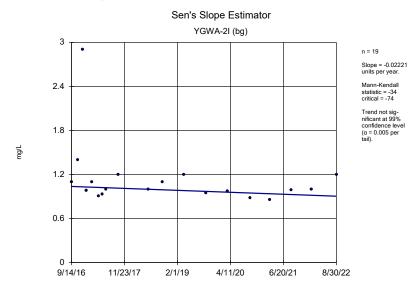
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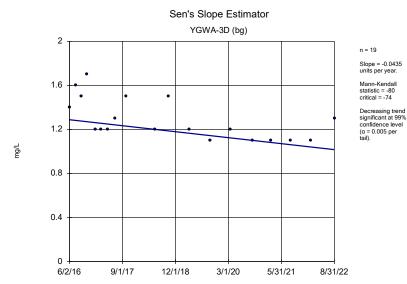
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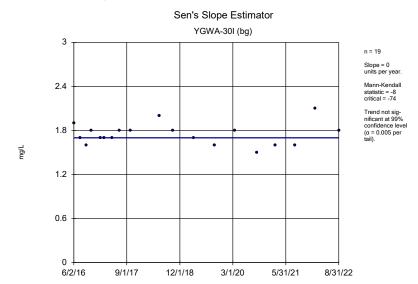
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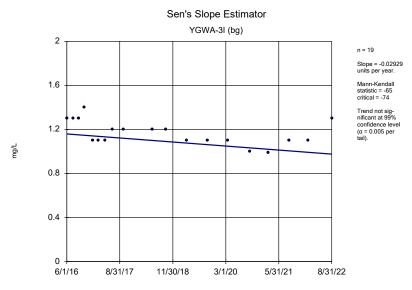
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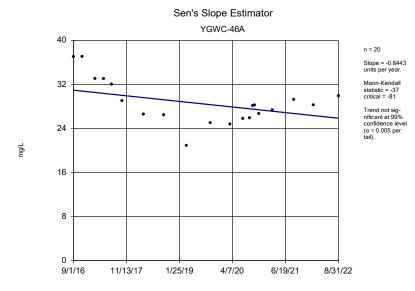
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



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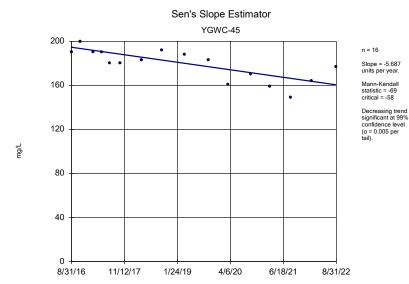


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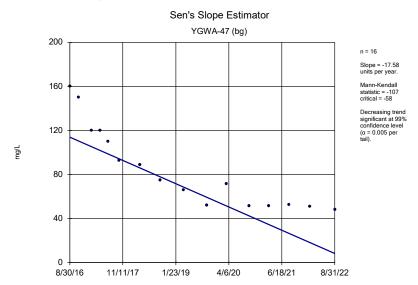


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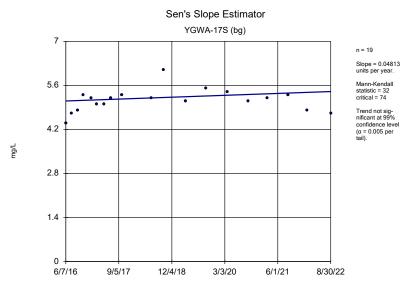




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Plant Yates Client: Southern Company Data: Yates Ash Pond1

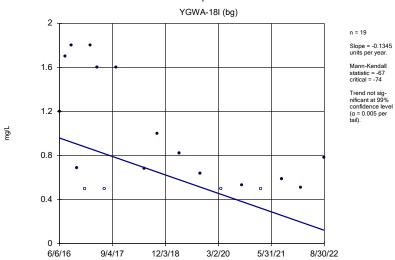


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Plant Yates Client: Southern Company Data: Yates Ash Pond1



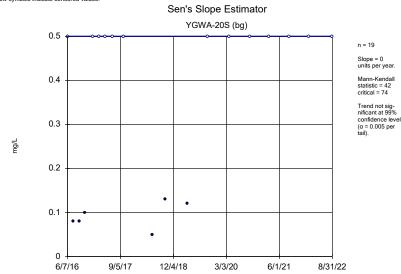
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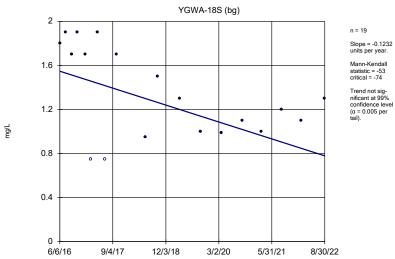
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Hollow symbols indicate censored values.

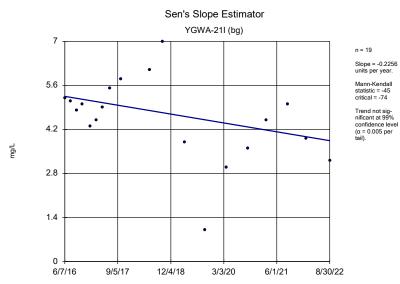


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Plant Yates Client: Southern Company Data: Yates Ash Pond1

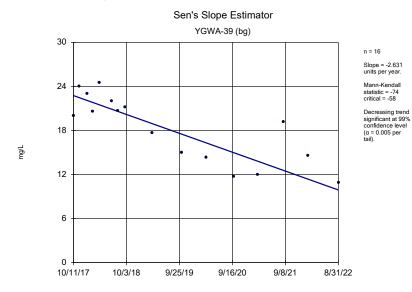
Sen's Slope Estimator



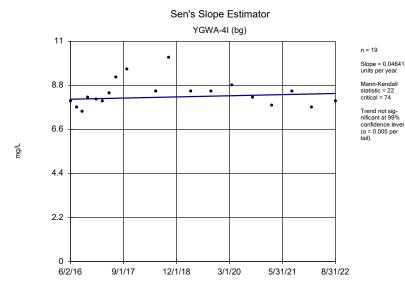
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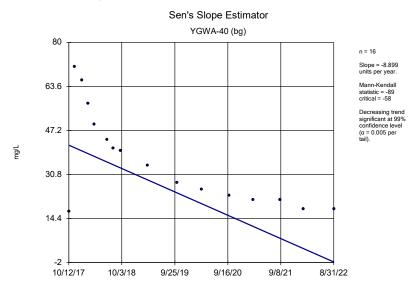
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



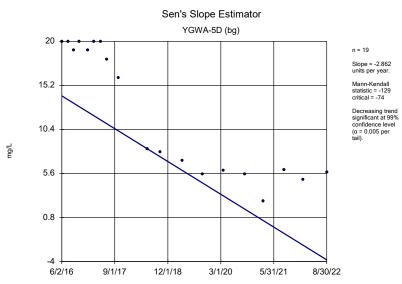
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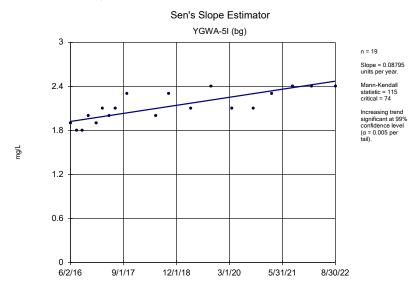
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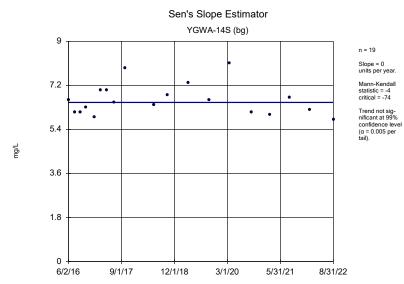
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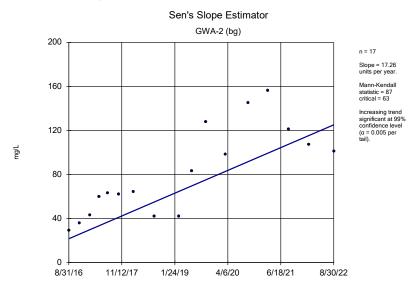
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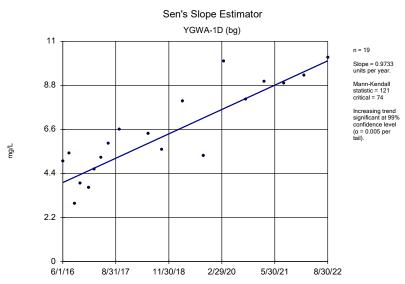
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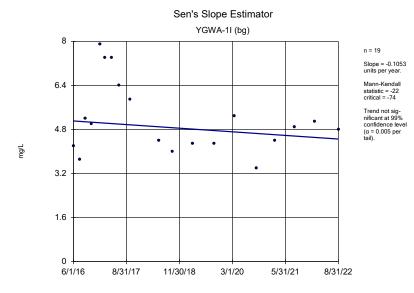
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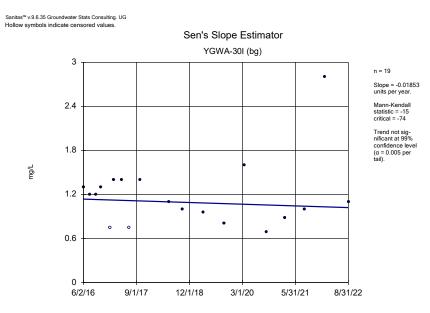
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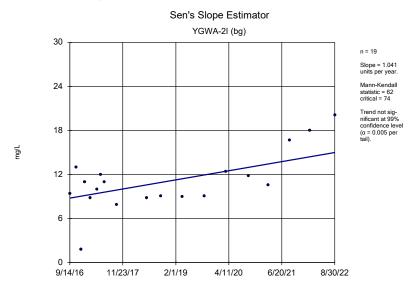
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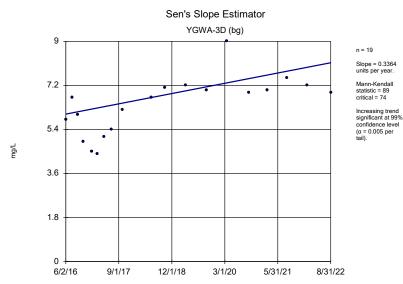
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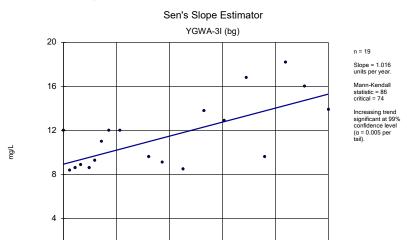
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Constituent: Sulfate as SO4 Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Sulfate as SO4 Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Sulfate as SO4 Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tests
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3/1/20

5/31/21

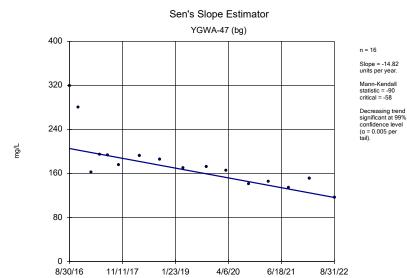
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Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

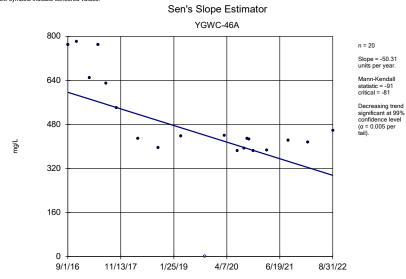
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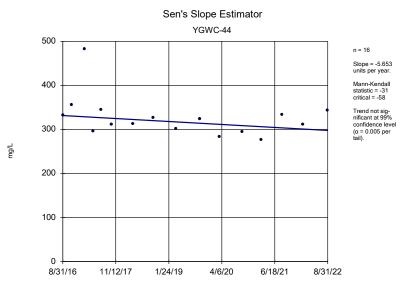


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Plant Yates Client: Southern Company Data: Yates Ash Pond1

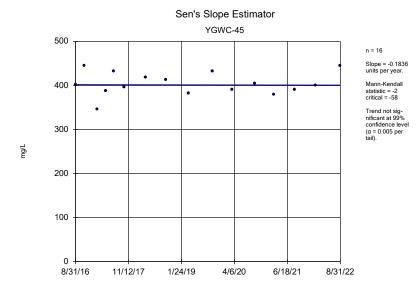
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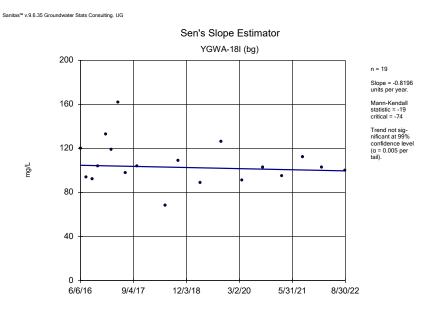
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



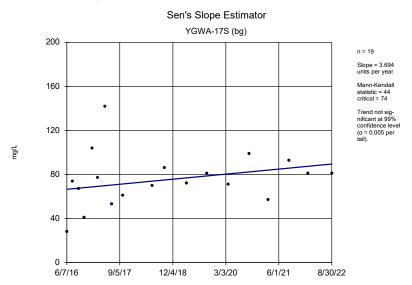
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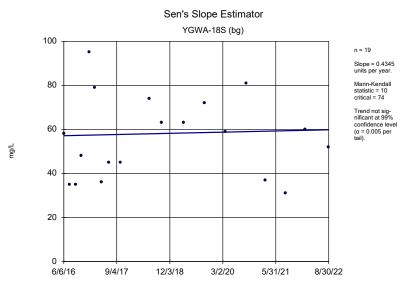
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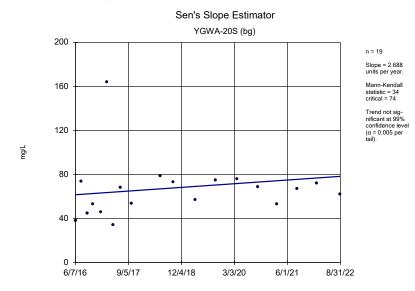
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tes
Plant Yates Client: Southern Company Data: Yates Ash Pond1



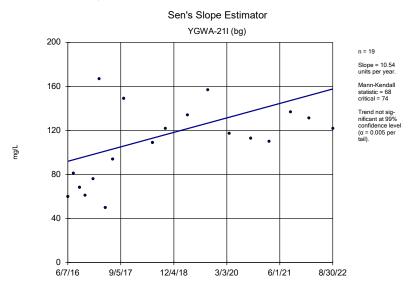
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



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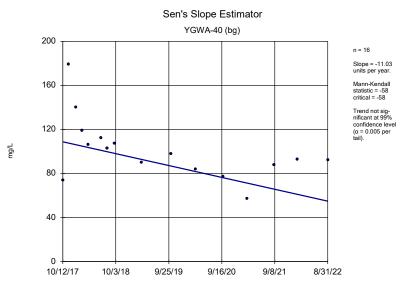
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Sen's Slope Estimator YGWA-39 (bg) 300 Slope = 30.24 units per year. 240 Mann-Kendal statistic = 64 critical = 58 Increasing trend significant at 99% confidence level 180 $(\alpha = 0.005 per$ 120 60 10/11/17 10/3/18 9/25/19 9/16/20 9/8/21 8/31/22

Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tes
Plant Yates Client: Southern Company Data: Yates Ash Pond1

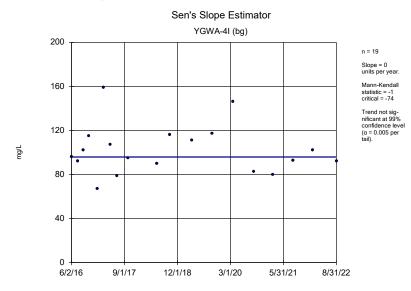


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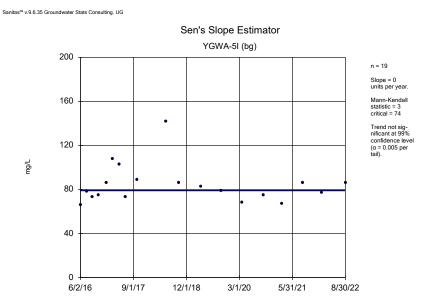




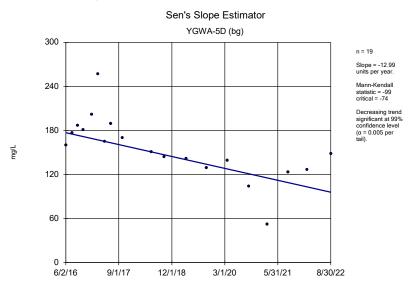
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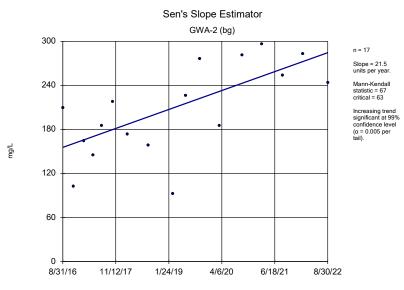
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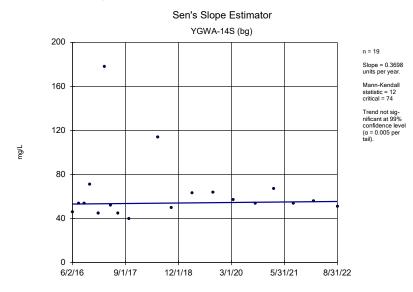
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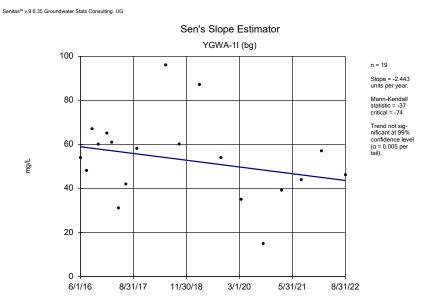
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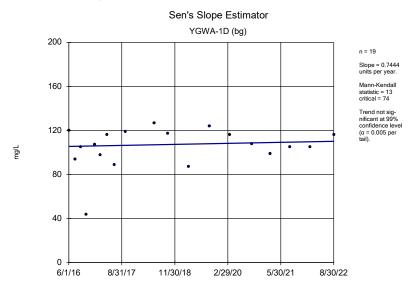
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



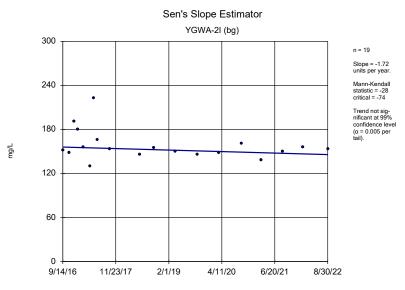
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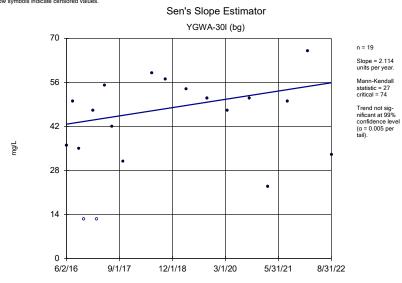
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



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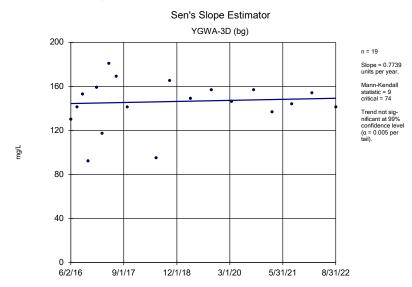
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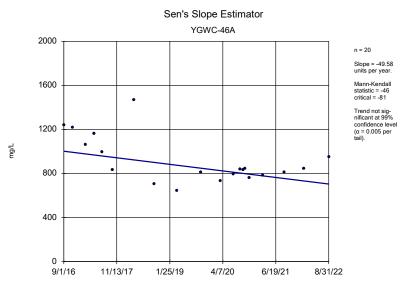
Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tes
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG Sen's Slope Estimator YGWA-3I (bg) 200 n = 19 Slope = 0.954 units per year. 160 Mann-Kendall critical = 74 Trend not sig-nificant at 99% confidence level 120 $(\alpha = 0.005 \text{ per}$ 80 40 0 6/1/16 8/31/17 11/30/18 3/1/20 5/31/21 8/31/22

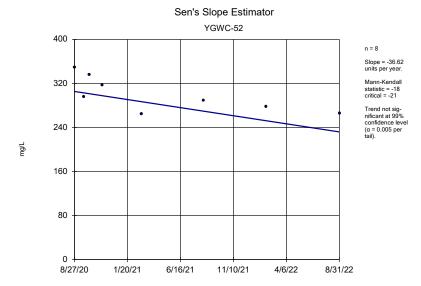
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Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tes
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tes
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Total Dissolved Solids [TDS] Analysis Run 10/6/2022 5:03 PM View: Appendix III - Trend Tes
Plant Yates Client: Southern Company Data: Yates Ash Pond1

FIGURE F.

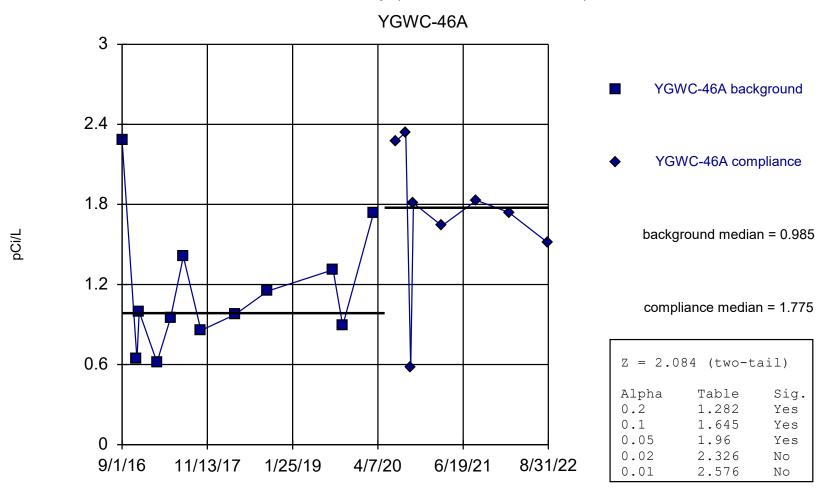
Welch's t-test/Mann-Whitney - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/7/2022, 9:30 AM

 Constituent
 Well
 Calc.
 0.01
 Method

 Combined Radium 226 + 228 (pCi/L)
 YGWC-46A
 2.084
 No
 Mann-W

Mann-Whitney (Wilcoxon Rank Sum)



Constituent: Combined Radium 226 + 228 Analysis Run 10/7/2022 9:30 AM View: Mann-Whitney Plant Yates Client: Southern Company Data: Yates Ash Pond1

Mann-Whitney (Wilcoxon Rank Sum)

 $\label{lem:constituent:Combined Radium 226 + 228 (pCi/L)} Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/7/2022 9:30 AM View: Mann-Whitney Plant Yates Client: Southern Company Data: Yates Ash Pond1$

	YGWC-46A	YGWC-46A
9/1/2016	2.28	
11/16/2016	0.639 (U)	
11/28/2016	0.996	
2/27/2017	0.617 (U)	
5/8/2017	0.949	
7/13/2017	1.41	
10/11/2017	0.856 (U)	
4/4/2018	0.974	
9/19/2018	1.15 (U)	
8/21/2019	1.31	
10/9/2019	0.892 (U)	
3/17/2020	1.74	
7/6/2020		2.27
8/28/2020		2.34
9/23/2020		0.575 (U)
10/7/2020		1.81
3/2/2021		1.64
8/27/2021		1.83
2/9/2022		1.74
8/31/2022		1.51

FIGURE G.

Upper Tolerance Limit Summary Table

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/6/2022, 5:00 PM Well Constituent Upper Lim. Lower Lim. Date Observ. Sig.Bg N Bg Mean Std. Dev. <u>%NDs</u> <u>ND Adj.</u> Transform Alpha Method n/a 372 n/a 87.63 n/a Antimony (mg/L) n/a 0.0047 n/a n/a n/a n/a NaN NP Inter(NDs) n/a 420 n/a 74.76 n/a Arsenic (mg/L) n/a 0.005 n/a n/a n/a n/a n/a NaN NP Inter(NDs) Barium (mg/L) n/a 0.071 n/a n/a 420 n/a n/a 2.619 n/a NaN NP Inter(normality) n/a n/a n/a Beryllium (mg/L) n/a 0.0005 n/a n/a 404 n/a 80.2 n/a NaN NP Inter(NDs) Cadmium (mg/L) n/a 0.00063 n/a n/a n/a n/a 404 n/a n/a 95.54 n/a n/a NaN NP Inter(NDs) Chromium (mg/L) n/a 0.0093 n/a n/a 372 n/a 80.11 n/a n/a NaN NP Inter(NDs) Cobalt (mg/L) NP Inter(NDs) 0.035 n/a n/a 414 n/a 69.32 n/a NaN n/a n/a n/a n/a n/a Combined Radium 226 + 228 (pCi/L) 6.92 n/a 399 n/a 0 n/a NaN NP Inter(normality) Fluoride, total (mg/L) 0.68 n/a 419 n/a 65.63 n/a NP Inter(NDs) n/a n/a n/a n/a n/a n/a NaN Lead (mg/L) 0.0013 n/a 374 n/a 85.29 n/a n/a NaN NP Inter(NDs) n/a Lithium (mg/L) n/a 0.03 n/a 399 n/a 26.32 n/a NaN NP Inter(normality) n/a n/a n/a n/a Mercury (mg/L) 0.00064 n/a 328 n/a 93.29 n/a NaN NP Inter(NDs) Molybdenum (mg/L) 0.014 n/a 363 n/a 60.33 n/a NaN NP Inter(NDs) n/a n/a n/a n/a n/a n/a Selenium (mg/L) n/a n/a 402 n/a 92.29 n/a n/a NaN NP Inter(NDs) Thallium (mg/L) n/a 338 n/a 97.04 n/a NP Inter(NDs) n/a 0.001 n/a n/a n/a n/a n/a NaN

FIGURE H.

YATES ASH POND 1 GWPS							
CCR-Rule Background							
Constituent Name	MCL	Specified	Limit	GWPS			
Antimony, Total (mg/L)	0.006		0.0047	0.006			
Arsenic, Total (mg/L)	0.01		0.005	0.01			
Barium, Total (mg/L)	2		0.071	2			
Beryllium, Total (mg/L)	0.004		0.0005	0.004			
Cadmium, Total (mg/L)	0.005		0.00063	0.005			
Chromium, Total (mg/L)	0.1		0.0093	0.1			
Cobalt, Total (mg/L)		0.006	0.035	0.035			
Combined Radium, Total (pCi/L)	5		6.92	6.92			
Fluoride, Total (mg/L)	4		0.68	4			
Lead, Total (mg/L)		0.015	0.0013	0.015			
Lithium, Total (mg/L)		0.04	0.03	0.04			
Mercury, Total (mg/L)	0.002		0.00064	0.002			
Molybdenum, Total (mg/L)		0.1	0.014	0.1			
Selenium, Total (mg/L)	0.05		0.005	0.05			
Thallium, Total (mg/L)	0.002		0.001	0.002			

^{*}Grey cell indicates Background Limit is higher than MCL or CCR Rule Specified Level

^{*}MCL = Maximum Contaminant Level

^{*}CCR = Coal Combustion Residual

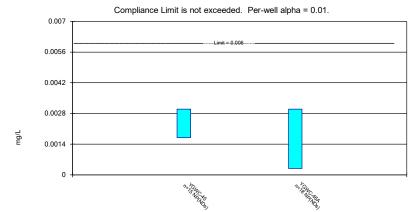
^{*}GWPS = Groundwater Protection Standard

FIGURE I.

Confidence Intervals - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 10/7/2022, 9:42 AM

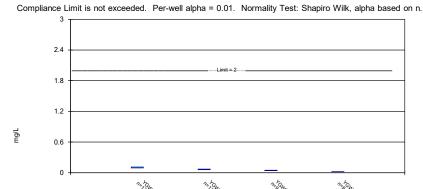
Constituent	Well	Upper Lim.	Lower Lim.	Compliano	e Lower Compl.	Sig.	<u>N</u>	<u>Mean</u>	Std. Dev.	%ND:	s <u>ND Adj.</u>	Transform	Alpha	Method
Antimony (mg/L)	YGWC-45	0.003	0.0017	0.006	n/a	No	15	5 0.002913	0.0003357	93.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	YGWC-46A	0.003	0.00029	0.006	n/a	No	18	8 0.002849	0.0006388	94.44	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-44	0.005	0.00086	0.01	n/a	No	17	7 0.003743	0.00201	70.59	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-45	0.005	0.00078	0.01	n/a	No	17	7 0.003983	0.00189	76.47	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-46A	0.005	0.00091	0.01	n/a	No	20	0.002505	0.001908	35	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-44	0.1127	0.09274	2	n/a	No	17	7 0.1027	0.01591	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-45	0.06973	0.05704	2	n/a	No	17	7 0.06338	0.01013	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-46A	0.04742	0.03969	2	n/a	No	9	0.04356	0.004003	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-52	0.02056	0.01769	2	n/a	No	8	0.01913	0.001356	0	None	No	0.01	Param.
Cadmium (mg/L)	YGWC-46A	0.0005	0.00012	0.005	n/a	No	17	7 0.0004318	0.000152	82.35	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-45	0.0061	0.0006	0.1	n/a	No	15	5 0.004485	0.001607	80	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-52	0.005	0.00073	0.1	n/a	No	8	0.002966	0.002178	50	None	No	0.004	NP (normality)
Cobalt (mg/L)	YGWC-44	0.003716	0.001775	0.035	n/a	No	17	7 0.003129	0.002594	5.882	None	ln(x)	0.01	Param.
Cobalt (mg/L)	YGWC-45	0.0008355	0.0006283	0.035	n/a	No	16	6 0.0007319	0.0001593	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-46A	0.002855	0.0006349	0.035	n/a	No	9	0.001736	0.001315	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	YGWC-52	0.001998	0.001142	0.035	n/a	No	8	0.00157	0.000404	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L	.) YGWC-44	0.945	0.2735	6.92	n/a	No	17	7 0.6797	0.6197	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L	.) YGWC-45	1.486	0.9125	6.92	n/a	No	17	7 1.199	0.4576	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L	.) YGWC-46A	1.698	1.055	6.92	n/a	No	20	0 1.376	0.5668	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L	.) YGWC-52	0.9369	0.302	6.92	n/a	No	7	0.647	0.2772	0	None	x^2	0.01	Param.
Fluoride, total (mg/L)	YGWC-44	0.12	0.07	4	n/a	No	18	8 0.09361	0.01908	77.78	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	YGWC-45	0.2	0.075	4	n/a	No	18	8 0.1588	0.1589	22.22	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	YGWC-46A	0.12	0.084	4	n/a	No	21	1 0.1109	0.06364	23.81	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	YGWC-52	0.1	0.059	4	n/a	No	8	0.09488	0.0145	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	YGWC-45	0.001	0.0001	0.015	n/a	No	15	5 0.00094	0.0002324	93.33	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-46A	0.001	0.000044	0.015	n/a	No	18	8 0.0009469	0.0002253	94.44	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-52	0.001	0.00006	0.015	n/a	No	8	0.0005379	0.0004941	50	None	No	0.004	NP (normality)
Lithium (mg/L)	YGWC-44	0.01347	0.01249	0.04	n/a	No	17	7 0.01298	0.0007798	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-45	0.0147	0.012	0.04	n/a	No	17	7 0.01313	0.001551	0	None	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-46A	0.01437	0.01163	0.04	n/a	No	9	0.013	0.001414	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-52	0.004649	0.003951	0.04	n/a	No	8	0.0043	0.0003295	0	None	No	0.01	Param.
Mercury (mg/L)	YGWC-44	0.0002	0.00006	0.002	n/a	No	13	3 0.0001892	0.00003883	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	YGWC-45	0.0002	0.000071	0.002	n/a	No	13	3 0.0001901	0.00003578	92.31	None	No	0.01	NP (NDs)
Mercury (mg/L)	YGWC-46A	0.0002	0.00007	0.002	n/a	No	15	5 0.0001913	0.00003357	93.33	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-44	0.01	0.0005	0.1	n/a	No	17	7 0.009441	0.002304	94.12	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-45	0.0024	0.0011	0.1	n/a	No	17	7 0.002924	0.003392	17.65	None	No	0.01	NP (normality)
Molybdenum (mg/L)	YGWC-46A	0.003669	0.001669	0.1	n/a	No	20	0 0.00325	0.002986	15	None	In(x)	0.01	Param.
Thallium (mg/L)	YGWC-44	0.001	0.00008	0.002	n/a	No	15	5 0.0009387	0.0002375	93.33	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-46A	0.001	0.000073	0.002	n/a	No	17	7 0.0009455	0.0002248	94.12	None	No	0.01	NP (NDs)



Constituent: Antimony Analysis Run 10/7/2022 9:41 AM View: Appendix IV - Confidence Intervals
Plant Yates Client: Southern Company Data: Yates Ash Pond1

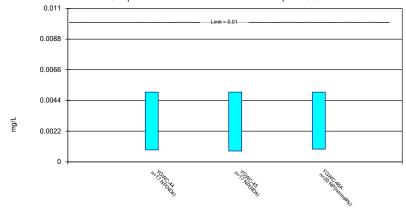
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Parametric Confidence Interval



Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

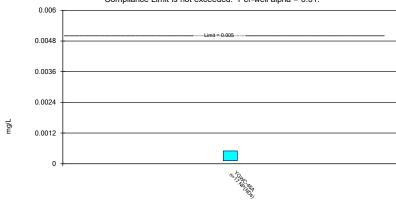


Constituent: Arsenic Analysis Run 10/7/2022 9:41 AM View: Appendix IV - Confidence Intervals
Plant Yates Client: Southern Company Data: Yates Ash Pond1

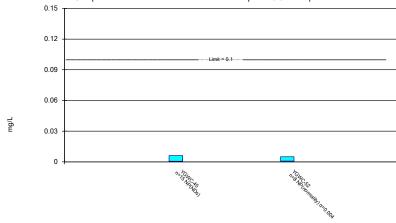
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

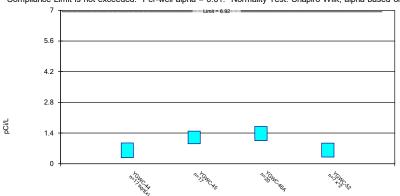


Constituent: Chromium Analysis Run 10/7/2022 9:41 AM View: Appendix IV - Confidence Intervals
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

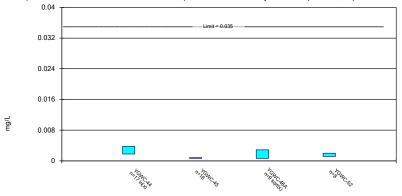
Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

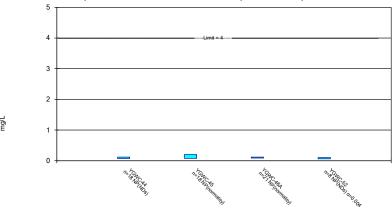


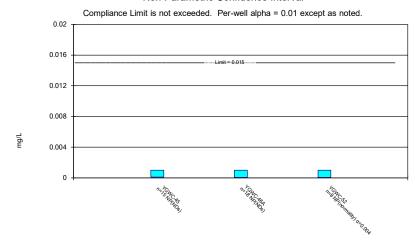
Constituent: Cobalt Analysis Run 10/7/2022 9:41 AM View: Appendix IV - Confidence Intervals
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

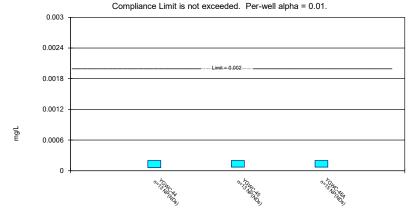




Constituent: Lead Analysis Run 10/7/2022 9:41 AM View: Appendix IV - Confidence Intervals

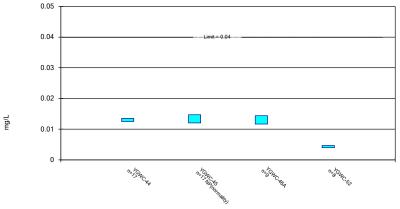
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval



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.

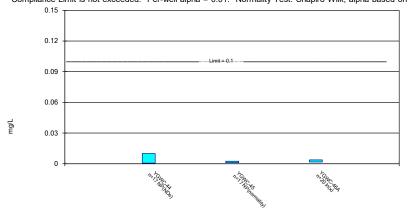


Constituent: Lithium Analysis Run 10/7/2022 9:41 AM View: Appendix IV - Confidence Intervals Plant Yates Client: Southern Company Data: Yates Ash Pond1

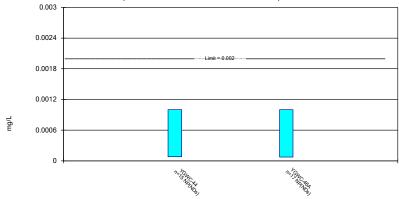
Sanitas™ v.9.6.35 Groundwater Stats Consulting. UG

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.



Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Thallium Analysis Run 10/7/2022 9:41 AM View: Appendix IV - Confidence Intervals
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Constituent: Antimony (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-45	YGWC-46A
8/31/2016	<0.003	
9/1/2016		<0.003
11/14/2016	<0.003	
11/16/2016		<0.003
2/27/2017	<0.003	<0.003
5/8/2017		<0.003
5/9/2017	<0.003	
7/13/2017	<0.003	<0.003
10/10/2017	<0.003	
10/11/2017		<0.003
4/3/2018	<0.003	
4/4/2018		<0.003
9/19/2018	<0.003	<0.003
8/20/2019	<0.003	
8/21/2019		<0.003
7/6/2020		<0.003
8/28/2020	0.0017 (J)	0.00029 (J)
9/23/2020	<0.003	<0.003
10/7/2020		<0.003
11/12/2020		<0.003
3/1/2021	<0.003	
3/2/2021		<0.003
8/19/2021	<0.003	
8/27/2021		<0.003
2/9/2022	<0.003	<0.003
8/31/2022	<0.003	<0.003
Mean	0.002913	0.002849
Std. Dev.	0.0003357	0.0006388
Upper Lim.	0.003	0.003
Lower Lim.	0.0017	0.00029

Constituent: Arsenic (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-44	YGWC-45	YGWC-46A
8/31/2016	<0.005	<0.005	
9/1/2016			<0.005
11/14/2016		<0.005	
11/15/2016	<0.005		
11/16/2016			<0.005
2/27/2017		<0.005	<0.005
2/28/2017	0.0005 (J)		
5/8/2017	0.0006 (J)		0.0007 (J)
5/9/2017		<0.005	
7/13/2017	<0.005	<0.005	0.0011 (J)
10/10/2017	0.0007 (J)	0.0006 (J)	
10/11/2017			0.0011 (J)
4/3/2018		0.00061 (J)	
4/4/2018	<0.005		0.00087 (J)
9/19/2018	0.00086 (J)	0.00072 (J)	0.0012 (J)
8/20/2019	0.00097 (J)	0.00078 (J)	
8/21/2019			0.00074 (J)
10/8/2019	<0.005		
10/9/2019		<0.005	<0.005
3/17/2020	<0.005	<0.005	<0.005
7/6/2020			0.00079 (J)
8/27/2020	<0.005		
8/28/2020		<0.005	0.0015 (J)
9/22/2020	<0.005		
9/23/2020		<0.005	0.00091 (J)
10/7/2020			0.001 (J)
11/12/2020			0.0014 (J)
3/1/2021	<0.005	<0.005	
3/2/2021			0.0016 (J)
8/19/2021	<0.005	<0.005	
8/27/2021			0.0022 (J)
2/9/2022	<0.005	<0.005	<0.005
8/31/2022	<0.005	<0.005	<0.005
Mean	0.003743	0.003983	0.002505
Std. Dev.	0.00201	0.00189	0.001908
Upper Lim.	0.005	0.005	0.005
Lower Lim.	0.00086	0.00078	0.00091

Constituent: Barium (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

			i idili i c	nes Chern. Courrerii Com
	YGWC-44	YGWC-45	YGWC-46A	YGWC-52
8/31/2016	0.126	0.0754		
9/1/2016			0.0414	
11/14/2016		0.0701		
11/15/2016	0.115			
11/16/2016			0.0365	
2/27/2017		0.0834	0.0326	
2/28/2017	0.121			
5/8/2017	0.125		0.0332	
5/9/2017		0.0779		
7/13/2017	0.106	0.0719	0.0365	
10/10/2017	0.112	0.0708		
10/11/2017			0.0288	
4/3/2018		0.068		
4/4/2018	0.12		0.025	
9/19/2018	0.11	0.064	0.03	
8/20/2019	0.1	0.057		
8/21/2019			0.023	
10/8/2019	0.098			
10/9/2019		0.058	0.024	
3/17/2020	0.099	0.061	0.022	
7/6/2020			0.048	
8/27/2020	0.086			0.021
8/28/2020		0.053	0.05	
9/22/2020	0.096			0.021
9/23/2020		0.052	0.045	
10/7/2020			0.042	0.019
11/12/2020			0.042	0.019
3/1/2021	0.087	0.055		0.019
3/2/2021			0.044	
8/19/2021	0.089	0.055		
8/20/2021				0.019
8/27/2021			0.043	
2/9/2022	0.083	0.053	0.042	0.018
8/31/2022	0.073	0.052	0.036	0.017
Mean	0.1027	0.06338	0.04356	0.01913
Std. Dev.	0.01591	0.01013	0.004003	0.001356
Upper Lim.	0.1127	0.06973	0.04742	0.02056
Lower Lim.	0.09274	0.05704	0.03969	0.01769

Constituent: Cadmium (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A
9/1/2016	<0.0005
11/16/2016	<0.0005
2/27/2017	<0.0005
5/8/2017	0.0001 (J)
7/13/2017	<0.0005
10/11/2017	<0.0005
4/4/2018	<0.0005
9/19/2018	<0.0005
8/21/2019	0.00012 (J)
10/9/2019	<0.0005
3/17/2020	0.00012 (J)
7/6/2020	<0.0005
8/28/2020	<0.0005
11/12/2020	<0.0005
8/27/2021	<0.0005
2/9/2022	<0.0005
8/31/2022	<0.0005
Mean	0.0004318
Std. Dev.	0.000152
Upper Lim.	0.0005
Lower Lim.	0.00012

Constituent: Chromium (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals
Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-45	YGWC-52
8/31/2016	<0.005	
11/14/2016	0.0061 (J)	
2/27/2017	<0.005	
5/9/2017	<0.005	
7/13/2017	0.0006 (J)	
10/10/2017	<0.005	
4/3/2018	<0.005	
9/19/2018	<0.005	
8/20/2019	<0.005	
8/27/2020		<0.005
8/28/2020	<0.005	
9/22/2020		0.00073 (J)
9/23/2020	0.00058 (J)	
10/7/2020		0.00086 (J)
11/12/2020		<0.005
3/1/2021	<0.005	0.00094 (J)
8/19/2021	<0.005	
8/20/2021		<0.005
2/9/2022	<0.005	0.0012 (J)
8/31/2022	<0.005	<0.005
Mean	0.004485	0.002966
Std. Dev.	0.001607	0.002178
Upper Lim.	0.0061	0.005
Lower Lim.	0.0006	0.00073

Constituent: Cobalt (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

			i idiit	rates Chert.
	YGWC-44	YGWC-45	YGWC-46A	YGWC-52
8/31/2016	0.0119	0.0009 (J)		
9/1/2016			0.0171	
11/14/2016		0.0009 (J)		
11/15/2016	0.0033 (J)			
11/16/2016			0.0145	
2/27/2017		0.001 (J)	0.0161	
2/28/2017	0.0017 (J)			
5/8/2017	0.0018 (J)		0.0367	
5/9/2017		0.0008 (J)		
7/13/2017	0.0022 (J)	0.0009 (J)	0.0265	
10/10/2017	0.0017 (J)	0.0008 (J)		
10/11/2017			0.0556	
4/3/2018		<0.01 (O)		
4/4/2018	<0.005		0.025	
9/19/2018	0.0025 (J)	0.00081 (J)	0.042	
8/20/2019	0.002 (J)	0.00071 (J)		
8/21/2019			0.027	
10/8/2019	0.0017 (J)			
10/9/2019		0.0007 (J)	0.024	
3/17/2020	0.004 (J)	0.00081 (J)	0.022	
7/6/2020			0.0041 (J)	
8/27/2020	0.003 (J)			0.0022 (J)
8/28/2020		0.00055 (J)	0.0038 (J)	
9/22/2020	0.0065			0.0019 (J)
9/23/2020		0.00053 (J)	0.0015 (J)	
10/7/2020			0.0014 (J)	0.0019 (J)
11/12/2020			0.001 (J)	0.0015 (J)
3/1/2021	0.0033 (J)	0.00062 (J)		0.0013 (J)
3/2/2021			0.00096 (J)	
8/19/2021	0.0014 (J)	0.00048 (J)		
8/20/2021				0.0013 (J)
8/27/2021			0.00056 (J)	
2/9/2022	0.0027 (J)	0.00051 (J)	0.0006 (J)	0.0015 (J)
8/31/2022	0.00099 (J)	0.00069 (J)	0.0017 (J)	0.00096 (J)
Mean	0.003129	0.0007319	0.001736	0.00157
Std. Dev.	0.002594	0.0001593	0.001315	0.000404
Upper Lim.	0.003716	0.0008355	0.002855	0.001998
Lower Lim.	0.001775	0.0006283	0.0006349	0.001142

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals
Plant Yates Client: Southern Company Data: Yates Ash Pond1

			i idili i d	tes Cherr. Oc
	YGWC-44	YGWC-45	YGWC-46A	YGWC-52
8/31/2016	2.15	1.65		
9/1/2016			2.28	
11/14/2016		0.981 (U)		
11/15/2016	0.676 (U)			
11/16/2016			0.639 (U)	
11/28/2016			0.996	
2/27/2017		0.528 (U)	0.617 (U)	
2/28/2017	0.241 (U)			
5/8/2017	0.508 (U)		0.949	
5/9/2017		1.4		
7/13/2017	0.77 (U)	0.611 (U)	1.41	
10/10/2017	1.43	1.47		
10/11/2017			0.856 (U)	
4/3/2018		1.53		
4/4/2018	0.325 (U)		0.974	
9/19/2018	0.386 (U)	0.839 (U)	1.15 (U)	
8/20/2019	1.71	2.23		
8/21/2019			1.31	
10/8/2019	0.769 (U)			
10/9/2019		1.61	0.892 (U)	
3/17/2020	1.37	1.44	1.74	
7/6/2020			2.27	
8/27/2020	0.0859 (U)			0.852 (U)
8/28/2020		0.983 (U)	2.34	
9/22/2020	0.327 (U)			0.268 (U)
9/23/2020		0.746 (U)	0.575 (U)	
10/7/2020			1.81	0.819 (U)
3/1/2021	0.0694 (U)	1.28		0.846 (U)
3/2/2021			1.64	
8/19/2021	0.261 (U)	1.38		
8/20/2021				0.496 (U)
8/27/2021			1.83	
2/9/2022	0.332 (U)	1.11	1.74	0.926
8/31/2022	0.145 (U)	0.598 (U)	1.51	0.322 (U)
Mean	0.6797	1.199	1.376	0.647
Std. Dev.	0.6197	0.4576	0.5668	0.2772
Upper Lim.	0.945	1.486	1.698	0.9369
Lower Lim.	0.2735	0.9125	1.055	0.302

Constituent: Fluoride, total (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

				,,
	YGWC-44	YGWC-45	YGWC-46A	YGWC-52
8/31/2016	<0.1	0.11 (J)		
9/1/2016			0.08 (J)	
11/14/2016		0.71		
11/15/2016	0.12 (J)			
11/16/2016			0.04 (J)	
2/27/2017		0.22 (J)	0.05 (J)	
2/28/2017	0.07 (J)			
5/8/2017	0.04 (J)		0.004 (J)	
5/9/2017		0.2 (J)		
7/13/2017	<0.1	0.11 (J)	0.35	
10/10/2017	<0.1	0.39		
10/11/2017			<0.1	
4/3/2018		<0.1		
4/4/2018	<0.1		<0.1	
9/19/2018	<0.1	<0.1	<0.1	
3/27/2019	<0.1	0.18 (J)	0.12 (J)	
8/20/2019	<0.1	<0.1		
8/21/2019			<0.1	
10/8/2019	<0.1			
10/9/2019		<0.1	0.12 (J)	
3/17/2020	<0.1	0.076 (J)	<0.1	
7/6/2020			0.12	
8/27/2020	<0.1			<0.1
8/28/2020		0.07 (J)	0.12	
9/22/2020	<0.1			<0.1
9/23/2020		0.082 (J)	0.12	
10/7/2020			0.13	<0.1
11/12/2020			0.084 (J)	<0.1
3/1/2021	<0.1	0.073 (J)		<0.1
3/2/2021			0.12	
8/19/2021	<0.1	0.075 (J)		
8/20/2021				<0.1
8/27/2021			0.13	
2/9/2022	<0.1	0.063 (J)	0.12	<0.1
8/31/2022	0.055 (J)	0.1	0.12	0.059 (J)
Mean	0.09361	0.1588	0.1109	0.09488
Std. Dev.	0.01908	0.1589	0.06364	0.0145
Upper Lim.	0.12	0.2	0.12	0.1
Lower Lim.	0.07	0.075	0.084	0.059

Constituent: Lead (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

			Tiunt Tutes One
	YGWC-45	YGWC-46A	YGWC-52
8/31/2016	<0.001		
9/1/2016		<0.001	
11/14/2016	<0.001		
11/16/2016		<0.001	
2/27/2017	<0.001	<0.001	
5/8/2017		<0.001	
5/9/2017	0.0001 (J)		
7/13/2017	<0.001	<0.001	
10/10/2017	<0.001		
10/11/2017		<0.001	
4/3/2018	<0.001		
4/4/2018		<0.001	
9/19/2018	<0.001	<0.001	
8/20/2019	<0.001		
8/21/2019		<0.001	
7/6/2020		<0.001	
8/27/2020			9.2E-05 (J)
8/28/2020	<0.001	<0.001	
9/22/2020			6E-05 (J)
9/23/2020	<0.001	<0.001	
10/7/2020		<0.001	<0.001
11/12/2020		4.4E-05 (J)	6.4E-05 (J)
3/1/2021	<0.001		8.7E-05 (J)
3/2/2021		<0.001	
8/19/2021	<0.001		
8/20/2021			<0.001
8/27/2021		<0.001	
2/9/2022	<0.001	<0.001	<0.001
8/31/2022	<0.001	<0.001	<0.001
Mean	0.00094	0.0009469	0.0005379
Std. Dev.	0.0002324	0.0002253	0.0004941
Upper Lim.	0.001	0.001	0.001
Lower Lim.	0.0001	4.4E-05	6E-05

Constituent: Lithium (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-44	YGWC-45	YGWC-46A	YGWC-52
8/31/2016	0.0115 (J)	0.0147 (J)		
9/1/2016			0.0077 (J)	
11/14/2016		0.0175 (J)		
11/15/2016	0.0148 (J)			
11/16/2016			0.0075 (J)	
2/27/2017		0.0135 (J)	0.0084 (J)	
2/28/2017	0.0124 (J)			
5/8/2017	0.0132 (J)		0.0087 (J)	
5/9/2017		0.0136 (J)		
7/13/2017	0.0124 (J)	0.0129 (J)	0.0104 (J)	
10/10/2017	0.0123 (J)	0.015 (J)		
10/11/2017			0.0099 (J)	
4/3/2018		0.014 (J)		
4/4/2018	0.014 (J)		0.012 (J)	
9/19/2018	0.013 (J)	0.012 (J)	0.011 (J)	
8/20/2019	0.013 (J)	0.012 (J)		
8/21/2019			0.0076 (J)	
10/8/2019	0.012 (J)			
10/9/2019		0.012 (J)	0.0078 (J)	
3/17/2020	0.013 (J)	0.014 (J)	0.0071 (J)	
7/6/2020			0.011 (J)	
8/27/2020	0.013 (J)			0.0048 (J)
8/28/2020		0.012 (J)	0.012 (J)	
9/22/2020	0.013 (J)			0.0046 (J)
9/23/2020		0.012 (J)	0.013 (J)	
10/7/2020			0.011 (J)	0.0041 (J)
11/12/2020			0.014 (J)	0.0044 (J)
3/1/2021	0.013 (J)	0.012 (J)		0.0043 (J)
3/2/2021			0.013 (J)	
8/19/2021	0.013 (J)	0.012 (J)		
8/20/2021				0.0043 (J)
8/27/2021			0.014 (J)	
2/9/2022	0.014 (J)	0.012 (J)	0.014 (J)	0.0042 (J)
8/31/2022	0.013 (J)	0.012 (J)	0.015 (J)	0.0037 (J)
Mean	0.01298	0.01313	0.013	0.0043
Std. Dev.	0.0007798	0.001551	0.001414	0.0003295
Upper Lim.	0.01347	0.0147	0.01437	0.004649
Lower Lim.	0.01249	0.012	0.01163	0.003951

Constituent: Mercury (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-44	YGWC-45	YGWC-46A
8/31/2016	<0.0002	<0.0002	
9/1/2016			<0.0002
11/14/2016		<0.0002	
11/15/2016	<0.0002		
11/16/2016			<0.0002
2/27/2017		<0.0002	<0.0002
2/28/2017	<0.0002		
5/8/2017	<0.0002		<0.0002
5/9/2017		<0.0002	
7/13/2017	<0.0002	<0.0002	<0.0002
10/10/2017	<0.0002	<0.0002	
10/11/2017			<0.0002
4/3/2018		<0.0002	
4/4/2018	<0.0002		<0.0002
9/19/2018	6E-05 (J)	7.1E-05 (J)	7E-05 (J)
8/20/2019	<0.0002	<0.0002	
8/21/2019			<0.0002
7/6/2020			<0.0002
8/27/2020	<0.0002		
8/28/2020		<0.0002	<0.0002
11/12/2020			<0.0002
8/19/2021	<0.0002	<0.0002	
8/27/2021			<0.0002
2/9/2022	<0.0002	<0.0002	<0.0002
8/31/2022	<0.0002	<0.0002	<0.0002
Mean	0.0001892	0.0001901	0.0001913
Std. Dev.	3.883E-05	3.578E-05	3.357E-05
Upper Lim.	0.0002	0.0002	0.0002
Lower Lim.	6E-05	7.1E-05	7E-05

Constituent: Molybdenum (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-44	YGWC-45	YGWC-46A
8/31/2016	<0.01	0.0024 (J)	
9/1/2016			<0.01
11/14/2016		<0.01	
11/15/2016	<0.01		
11/16/2016			<0.01
2/27/2017		0.0018 (J)	<0.01
2/28/2017	0.0005 (J)		
5/8/2017	<0.01		0.0008 (J)
5/9/2017		0.0015 (J)	
7/13/2017	<0.01	0.0015 (J)	0.0015 (J)
10/10/2017	<0.01	0.0015 (J)	
10/11/2017			0.002 (J)
4/3/2018		<0.01	
4/4/2018	<0.01		0.0021 (J)
9/19/2018	<0.01	<0.01	0.0039 (J)
8/20/2019	<0.01	0.0011 (J)	
8/21/2019			0.0012 (J)
10/8/2019	<0.01		
10/9/2019		0.0012 (J)	0.0013 (J)
3/17/2020	<0.01	0.0016 (J)	0.0015 (J)
7/6/2020			0.0026 (J)
8/27/2020	<0.01		
8/28/2020		0.0013 (J)	0.003 (J)
9/22/2020	<0.01		
9/23/2020		0.0011 (J)	0.0025 (J)
10/7/2020			0.0024 (J)
11/12/2020			0.0019 (J)
3/1/2021	<0.01	0.0012 (J)	
3/2/2021			0.0023 (J)
8/19/2021	<0.01	0.0012 (J)	
8/27/2021			0.0022 (J)
2/9/2022	<0.01	0.0012 (J)	0.0021 (J)
8/31/2022	<0.01	0.0011 (J)	0.0017 (J)
Mean	0.009441	0.002924	0.00325
Std. Dev.	0.002304	0.003392	0.002986
Upper Lim.	0.01	0.0024	0.003669
Lower Lim.	0.0005	0.0011	0.001669

Constituent: Thallium (mg/L) Analysis Run 10/7/2022 9:42 AM View: Appendix IV - Confidence Intervals

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-44	YGWC-46A
8/31/2016	<0.001	
9/1/2016		<0.001
11/15/2016	<0.001	
11/16/2016		<0.001
2/27/2017		<0.001
2/28/2017	<0.001	
5/8/2017	<0.001	<0.001
7/13/2017	<0.001	<0.001
10/10/2017	<0.001	
10/11/2017		<0.001
4/4/2018	<0.001	<0.001
9/19/2018	<0.001	<0.001
8/20/2019	<0.001	
8/21/2019		<0.001
10/8/2019	<0.001	
10/9/2019		<0.001
3/17/2020	8E-05 (J)	<0.001
7/6/2020		7.3E-05 (J)
8/27/2020	<0.001	
8/28/2020		<0.001
11/12/2020		<0.001
8/19/2021	<0.001	
8/27/2021		<0.001
2/9/2022	<0.001	<0.001
8/31/2022	<0.001	<0.001
Mean	0.0009387	0.0009455
Std. Dev.	0.0002375	0.0002248
Upper Lim.	0.001	0.001
Lower Lim.	8E-05	7.3E-05

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