Prepared for

Georgia Power Company
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Atlanta, Georgia 30308

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

PLANT HAMMOND ASH POND 3 (AP-3)

Prepared by

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Project Number GW6581D

July 2023

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CERTIFICATION STATEMENT

This *2023 Annual Groundwater Monitoring and Corrective Action Report, Plant Hammond – Ash Pond 3 (AP-3)* has been prepared in compliance with the United States Environmental Protection Agency Coal Combustion Residual Rule (40 Code of Federal Regulations [CFR] 257 Subpart D), specifically 40 CFR § 257.90(e), and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Geosyntec Consultants, Inc. I hereby certify that I am a qualified groundwater scientist, in accordance with the Georgia Rules of Solid Waste Management 391-3-4-.01.

July 31, 2023

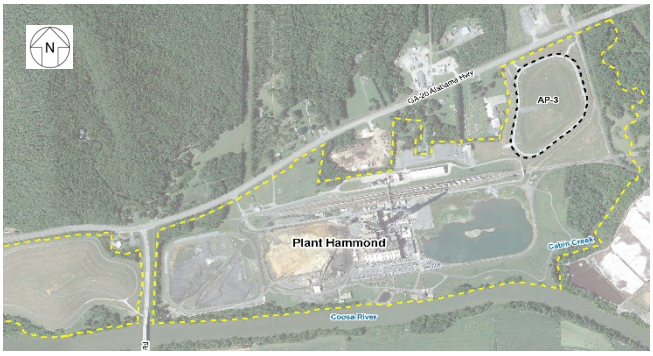
Whitney B. Law
Georgia Professional Engineer No. 36641

Date

SUMMARY

This summary of the *2023 Annual Groundwater Monitoring and Corrective Action Report* provides the status of groundwater monitoring and corrective action program for the reporting period of July 2022 through June 2023 (referred herein as the "reporting period") at the Georgia Power Company (Georgia Power) Plant Hammond Ash Pond 3 (AP-3) (the Site). This summary was prepared by Geosyntec Consultants, Inc. (Geosyntec) on behalf of Georgia Power to meet the requirements listed in Part A, Section 6[1] of the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (federal CCR Rule) (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant Hammond is located at 5963 Alabama Highway SW, approximately 10 miles west of Rome in Floyd County, Georgia. AP-3 is located on the northeastern corner of the Plant Hammond property. In the early 1980's, AP- 3 was converted into a dry ash disposal area and in the early 1990's the pond stopped receiving CCR materials. Final capping of the pond with a low-permeability cover system was completed in the second quarter of 2018.



Plant Hammond and the Site

Groundwater at the Site is monitored using a comprehensive monitoring network that meets federal and state monitoring requirements. Groundwater monitoring-related activities have been performed at AP-3 since August 2016.

During the reporting period, Geosyntec conducted groundwater sampling events in August 2022 and January 2023. Groundwater samples were submitted to Pace Analytical Services, LLC, for analysis. Groundwater data for both events were evaluated in accordance with the certified statistical methods. Statistically significant increases of

[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

Appendix III[2] constituents above background were observed in select monitoring wells following the August 2022 and January 2023 event, as summarized in the table below.

Appendix III Constituent[2]	***August 2022***	***January 2023***
Boron	HGWC-120, HGWC-121A, HGWC-125	HGWC-120, HGWC-121A, HGWC-125
Calcium	HGWC-120, HGWC-121A, HGWC-125, HGWC-126	HGWC-120, HGWC-121A, HGWC-125
Sulfate	HGWC-120, HGWC-121A, HGWC-125	HGWC-120, HGWC-121A, HGWC-125
Total dissolved solids	HGWC-121A, HGWC-125	HGWC-120, HGWC-125

No statistically significant levels (SSLs) were identified for Appendix IV groundwater data from the August 2022 or January 2023 events[3].

Groundwater at AP-3 will continue to be managed under the assessment monitoring program. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to Georgia Power's CCR Rule Compliance website and provided to the Georgia Environmental Protection Division (GA EPD) semiannually.

[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. A federal SSL-related constituent is determined by comparing the confidence intervals developed to either the constituent's maximum contaminant level (MCL), if available, the USEPA Rule Specified Level, if no MCL is available, or the calculated background interwell tolerance limit.

Geosyntec consultants

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AP-3	Ash Pond 3
CCR	coal combustion residuals
CFR	Code of Federal Regulations
cm/sec	centimeters per second
DO	dissolved oxygen
ft/day	feet per day
ft/ft	feet per foot
GA EPD	Georgia Environmental Protection Division
Georgia Power	Georgia Power Company
Geosyntec	Geosyntec Consultants, Inc.
GSC	Groundwater Stats Consulting
GWPS	Groundwater Protection Standard
HAR	Hydrogeologic Assessment Report
HDPE	high density polyethylene
i	horizontal hydraulic gradient
K_h	horizontal hydraulic conductivity
MCL	Maximum Contaminant Level
mg/L	milligram per liter
n_e	effective porosity
NELAP	National Environmental Laboratory Accreditation Program
NTU	Nephelometric turbidity units
ORP	oxidation-reduction potential
Pace Analytical	Pace Analytical Services, LLC.
PE	Professional Engineer
PL	prediction limit
QA/QC	Quality Assurance/Quality Control
SSI	statistically significant increase
SSL	statistically significant level
s.u.	standard unit
TDS	total dissolved solids
Unified Guidance	Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residual Rule (CCR Rule) [40 Code of Federal Regulations (CFR) Part 257, Subpart D] and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10, Geosyntec Consultants, Inc. (Geosyntec) has prepared this *2023 Annual Groundwater Monitoring and Corrective Action Report* to document groundwater monitoring activities conducted at Georgia Power Company (Georgia Power) Plant Hammond (Site) Ash Pond 3 (AP-3) for the reporting period of July 2022 through June 2023 (referred herein as the "reporting period"). This report includes the results of the semiannual assessment monitoring events conducted in August 2022 and January 2023.

Groundwater monitoring and reporting for the CCR unit is performed in accordance with the monitoring requirements of § 257.90 through § 257.95 of the federal CCR Rule, and GA EPD Rules for Solid Waste Management 391-3-4-.10(6). To specify groundwater monitoring requirements, GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the federal CCR Rule. For ease of reference, the federal CCR rules are cited within this report, in lieu of citing both sets of regulations.

AP-3 ceased receiving waste prior to the effective date of the federal CCR Rule promulgated in April 2015. A notification of intent to initiate closure of the inactive CCR surface impoundment was certified on December 7, 2015 and posted to Georgia Power's website. Groundwater monitoring and reporting for AP-3 are being completed in accordance with the alternate schedule in § 257.100(e)(5) of the revised federal CCR Rule (August 5, 2016). Pursuant to § 257.96(b), Georgia Power monitors groundwater associated with AP-3 in accordance with the assessment monitoring program established for the unit in 2019, including semiannual monitoring and reporting pursuant to § 257.90 through § 257.95 of the federal CCR Rule.

1.1 Site Description and Background

Plant Hammond is located in Floyd County, Georgia, approximately 10 miles west of Rome and is bordered by Georgia Highway 20 (GA-20) on the north, the Coosa River on the south, Cabin Creek and industrial land on the east, and sparsely populated, forested, rural and industrial land on the west (**Figure 1**). The physical address of the plant is 5963 Alabama Highway, Rome, Georgia, 30165.

Plant Hammond was a four-unit, coal-fired electric generating facility. All four units at Plant Hammond were retired on July 29, 2019, and no longer produce electricity.

AP-3 is a 25-acre former ash pond that was constructed in 1973 and 1974. Ash sluicing and placement operations at AP-3 commenced in June 1977. In the early 1980's, AP-3 was converted into a dry ash disposal area, and in the early 1990's, the pond stopped receiving CCR materials.

Closure of AP-3 commenced in 2016. As part of closure, AP-3 was dewatered sufficiently to remove the free liquids. The CCR material remaining in AP-3 was graded, and a final cover system installed. The final cover system consists of a 60-millimeter-high density polyethylene (HDPE) liner, geocomposite drainage media, a minimum 18-inch-thick protective soil cover, and a 6-inch-thick vegetative layer. The final cover system was designed to limit infiltration of precipitation with low permeability materials and is graded to promote positive drainage and shed stormwater away from AP-3 via riprap drainage ditches toward three outfall locations around AP-3. Final capping of the unit was completed in the second quarter of 2018.

1.2 Regional Geology and Hydrogeologic Setting

The following section summarizes the geologic and hydrogeologic conditions at AP-3 as described in the *Hydrogeologic Assessment Report* (*Revision 01) – Plant Hammond Ash Pond 3 (AP-3)* (HAR Rev 01) submitted to GA EPD in support of the AP-3 closure permit application (Geosyntec, 2020).

1.2.1 Regional and Site Geology

The Site is located within the Great Valley District of the Valley and Ridge Physiographic Province (Valley and Ridge) in northwest Georgia. The Valley and Ridge is characterized by Paleozoic sedimentary rocks that have been folded and faulted into the ridges and valleys that gave this region its name. Geologic mapping performed at the Site by Petrologic Solutions, Inc. under the direction of Golder (Golder, 2018), indicates that AP-3 is underlain by the middle units of the Cambrian age Conasauga Formation, consisting of mostly shaley limestone. Based on review of site-specific subsurface investigations, the bedrock at AP-3 was identified as limestone or shaley limestone. AP-3 is underlain primarily by five units: (i) fill material; (ii) terrace alluvium; (iii) residuum; (iv) highly weathered/fractured limestone bedrock; and (v) unweathered limestone bedrock.

Based on subsurface investigations, the fill is composed of lean clay or gravelly lean clay with sand, sometimes identified by the presence of wood or roots. The terrace alluvium consists of unconsolidated sediments with high sand and gravel content associated with deposition from the Coosa River and Cabin Creek. Residual or native soils have been derived from the in-place weathering of the shaley limestone bedrock. The residuum is generally described as fat clay with typically only trace amounts of sand, and rarely gravel. Just below the residuum clay layer is a gradational zone of varying proportions of clayey residuum and sand, gravel, and cobble-sized angular pieces of partially weathered limestone, grading into a zone of fractured limestone, before grading into unweathered, fresh limestone. The upper highly weathered zone appears more as residuum with various sized rock fragments. The lower zone becomes less clayey with depth and is estimated to be approximately 5 feet thick. Most of the limestone is described as medium to dark gray with a slabby or flaggy habit when broken in pieces by the sonic drilling. The limestone is very finely laminated with lighter and darker gray layers, and contains interbeds of calcareous shale.

1.2.2 Hydrogeologic Setting

The uppermost aquifer at AP-3 is a regional groundwater aquifer that occurs within the residuum and the weathered and fractured bedrock. The uppermost aquifer is considered to be unconfined; however, localized, semi-confined conditions may be encountered due to the low-permeability clayey nature of the residual soils, or as a result of perched groundwater or poorly interconnected fracture networks in the bedrock. Based on observations of soil types and horizontal conductivity values, the movement of groundwater in the soil, and to some degree the highly weathered bedrock zone, can be characterized as low-to moderate permeability, porous media flow. Groundwater flow in the more competent underlying bedrock is characterized as fracture flow. Flow direction within the area of AP-3 is generally from west to east.

1.3 Groundwater Monitoring Well Network

In accordance with § 257.91, a groundwater monitoring system was installed at AP-3 that consists of a sufficient number of wells installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer to represent the groundwater quality both upgradient of the unit (i.e., background conditions) and passing the waste boundary of the unit. The number, spacing, and depths of the groundwater monitoring

wells were selected based on the characterization of site-specific hydrogeologic conditions.

The current on-site network of piezometers is used to gauge water levels to define groundwater flow direction and gradients. The locations of the detection monitoring wells and piezometers associated with AP-3 are shown on **Figure 2**; well construction details are listed in **Table 1**.

2.0 GROUNDWATER MONITORING ACTIVITIES

In accordance with § 257.90(e), the following describes groundwater monitoring-related activities performed during the reporting period and discusses any change in status of the monitoring program. Groundwater sampling was performed in accordance with § 257.93.

2.1 Monitoring Well Installation and Maintenance

No additional detection monitoring wells or piezometers were installed during this reporting period.

The well and piezometer networks are inspected semiannually to evaluate 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 and January 2023, the networks were inspected and necessary corrective actions were identified and subsequently completed, as documented in **Appendix A**. This documentation was prepared under the direction of a professional geologist or engineer registered in the State of Georgia.

2.2 Assessment Monitoring

Georgia Power initiated an assessment monitoring program for groundwater at AP-3 in August 2019. No SSLs of Appendix IV constituents were identified during this reporting period. Groundwater at AP-3 will continue to be managed under the assessment monitoring program stipulated by § 257.95.

For the current reporting period, two semiannual assessment monitoring events were conducted in August 2022 and January 2023. The number of groundwater samples collected for analysis and the dates the samples were collected at AP-3 during the reporting period are summarized in **Table 2**. Details of these events and analytical results are discussed in Section 3, while the statistical results are discussed in Section 4.

2.3 Additional Groundwater and Surface Water Evaluations

Supplemental groundwater samples were collected from the entire AP-3 detection monitoring well network during the August 2022 monitoring event and were analyzed for major cations (calcium, magnesium, potassium, and sodium) and major anions (chloride, sulfate, and alkalinity (bicarbonate, carbonate, total) as well as iron, manganese, and

sulfide. The data were collected in support of evaluating, as necessary, the geochemical composition of the groundwater at the Site. The laboratory reports associated with the data are provided in **Appendix B**.

In response to GA EPD comments received on January 26, 2021, Georgia Power added three surface water sampling locations to the stormwater outfalls at AP-3. Upon issuance of the Hammond AP-3 solid waste permit, these locations will be sampled semiannually for the full Appendix IV constituent list.

3.0 SAMPLING METHODOLOGY AND ANALYSES

The following section presents a summary of the field sampling procedures that were implemented, and the groundwater sampling results that were obtained in connection with the assessment monitoring program conducted at AP-3 during the reporting period.

3.1 Groundwater and Surface Water Level Measurement

A synoptic round of depth-to-groundwater-level measurements was recorded from the AP-3 wells and piezometers during the August 2022 and January 2023 assessment monitoring events and used to calculate corresponding groundwater elevations, which are presented in **Table 3**. The August 2022 and January 2023 elevations reported are generally representative of the groundwater elevations reported for prior monitoring events.

Surface water elevations were recorded from two surveyed gauging points located along Cabin Creek east of AP-3, as shown on **Figure 2**. One gauging location, referenced in **Table 3** as "Cabin Creek (Hwy 20)", is located midway across the bridge along GA-20 Alabama Highway spanning Cabin Creek. The second Cabin Creek gauging location is along the railroad bridge southeast of AP-3; this location is referred to in **Table 3** as "Cabin Creek (Railroad Bridge)".

The groundwater and surface water elevation data presented in **Table 3** were used to prepare potentiometric surface contour maps for the August 2022 and January 2023 event, which are presented on **Figure 3** and **Figure 4,** respectively. Groundwater in the AP-3 area flows under the influence of topography from slightly higher ground surface elevations on the western side of the Site toward lower elevations to the east of AP-3. The flow direction is consistent with previous observations for AP-3.

3.2 Groundwater Gradient and Flow Velocity

The horizontal groundwater hydraulic gradient within the uppermost aquifer beneath AP-3 was calculated using the groundwater elevation data from the August 2022 and January 2023 semiannual sampling events. The hydraulic gradient is commonly calculated along the groundwater flow path perpendicular to groundwater elevation contours. Ideally, this flow path originates and concludes with groundwater elevations reported for two wells, but this may not be feasible and still remain perpendicular to the contours. The hydraulic gradient in this report has been calculated between an upgradient

and downgradient well pair selected to provide the most accurate alignment possible relative to the interpreted groundwater flow path (i.e., between HGWA-122 and MW-32). The hydraulic gradient calculation is presented in **Table 4**. The general trajectory of the flow path for the August 2022 and January 2023 semiannual sampling events are shown on **Figure 3** and **Figure 4,** respectively. The average hydraulic gradient for this reporting period across AP-3 is 0.012 feet per foot (ft/ft).

The approximate horizontal flow velocity associated with AP-3 groundwater was calculated using the following derivative of Darcy's Law. The calculation is provided in **Table 4**.

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

where:

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

K_h = Horizontal Hydraulic Conductivity $\left(\frac{feet}{day}\right)$

i = Horizontal hydraulic gradient $\left(\frac{feet}{foot}\right) = \frac{h_1 - h_2}{L}$

h_1 and h_2 = Groundwater elevation at location 1 and 2

L = distance between location 1 and 2

n_e = Effective porosity

Aquifer testing was conducted by LETCO in 1977, Southern Company Services in 2014, and Geosyntec in 2017 to evaluate horizontal hydraulic conductivity (K_h) of the water bearing units in the vicinity of AP-3. Slug testing was performed to estimate the K_h for units above the top of bedrock, while single packer testing was used to estimate the K_h for the bedrock intervals. Additional details are presented in the HAR Rev 01 (Geosyntec, 2020).

The groundwater flow velocity calculation was performed using the geometric mean value for K_h of the highly weathered/fractured rock of 9.8 x 10^{-4} centimeters per second (cm/sec) or 2.76 feet per day (ft/day). An estimated effective porosity (n_e) of 0.15 is used to represent average lithologic conditions at AP-3, derived based on review of literature,

observed site lithology, and professional judgement. With these variables assigned, and accounting for the hydraulic gradient discussed above, the horizontal groundwater flow velocity underneath AP-3 for this reporting period was calculated to be 0.22 ft/day.

3.3 Groundwater Sampling Procedures

Groundwater samples were collected using low-flow sampling procedures in accordance with § 257.93(a). Purging and sampling was performed using dedicated bladder pumps with dedicated tubing, non-dedicated bladder pumps, or peristaltic pumps. For wells sampled with non-dedicated bladder pumps, the pump intake was lowered to the midpoint of the well screen (or as appropriate based on the groundwater level). Non-dedicated bladder pump samples were collected using new disposable polyethylene tubing; all non-dedicated tubing was disposed of following the sampling event. All non-disposable equipment was decontaminated before use and between well locations.

An in-situ water quality field meter (Aqua TROLL 400) was used to monitor and record field water quality parameters [i.e., pH, conductivity, dissolved oxygen (DO), temperature, and oxidation reduction potential (ORP)] during well purging to verify stabilization prior to sampling. Turbidity was monitored using a LaMotte 2020we portable turbidity meter. Groundwater samples were collected once the following stabilization criteria were met:

- pH ± 0.1 standard units (s.u.).
- Conductivity ± 5%.
- ±0.2 milligram per liter (mg/L) ± 10%, whichever is greater, for DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L, record only.
- Turbidity measured less than 5 nephelometric turbidity units (NTU) or measured between 5 and 10 NTU following three hours of purging.

Following purging, and once stabilization was achieved, unfiltered samples were collected into appropriately preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Pace Analytical Services, LLC (Pace Analytical) in Peachtree Corners, Georgia, following chain-of-custody protocol. The field sampling and equipment calibration forms generated during the reporting period are provided in **Appendix B**.

3.4 Laboratory Analyses

Laboratory analyses were performed by Pace Analytical, which is accredited by the National Environmental Laboratory Accreditation Program (NELAP). Pace Analytical maintains a NELAP certification for the Appendix III and Appendix IV constituents and the geochemical parameters analyzed for this project. Analytical methods used for groundwater sample analysis, and the associated results, are listed in the analytical laboratory reports included in **Appendix B**. The groundwater analytical results from the August 2022 and January 2023 semiannual sampling events are summarized in **Table 5**; the supplementary geochemical ionic data from the August 2022 event are presented in **Table 6**.

3.5 Quality Assurance and Quality Control Summary

Quality assurance/quality control (QA/QC) samples were collected during the groundwater monitoring event in accordance with the Site's *Groundwater Monitoring Plan* (Geosyntec, 2021), and included the following: field duplicates, equipment blanks, and field blank samples. QA/QC samples were collected in appropriately preserved laboratory-provided containers and submitted under the same chain of custody as the primary samples for analysis of the same constituents by Pace Analytical.

In addition to collecting QA/QC samples, the data were validated based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and applicable federal guidance documents (USEPA, 2011; USEPA, 2017). Where necessary, the data were qualified with supporting documentation and justifications. The data are considered usable for meeting project objectives and the results are considered valid. The associated data validation reports are provided in **Appendix B,** along with the laboratory reports.

4.0 STATISTICAL ANALYSIS

The following section summarizes the statistical analysis of Appendix III groundwater monitoring data performed pursuant to § 257.93. In addition, pursuant to § 257.95(d)(2), Georgia Power established groundwater protection standards (GWPS) for the Appendix IV constituents and completed statistical analyses of the Appendix IV groundwater monitoring data obtained during the reporting period. The data were analyzed by Groundwater Stats Consulting (GSC); the report generated from the analyses are provided in **Appendix C**.

4.1 Statistical Methods

Groundwater data from the reporting period were statistically analyzed in accordance with the Professional Engineer-certified (PE-certified) Statistical Analysis Method Certification (October 2017, revised January 2020). The Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision-support software package, that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the USEPA document *Statistical Analysis of Groundwater Data at RCRA Facilities Unified Guidance* (Unified Guidance) (USEPA, 2009).

Appendix III statistical analysis was performed to determine if Appendix III constituents have returned to background levels. Appendix IV constituents were evaluated to assess if concentrations statistically exceeded the established GWPS. Detailed statistical methods used for Appendix III and Appendix IV constituents are discussed in statistical analysis packages provided in **Appendix C** and summarized in Sections 4.1.1 and 4.1.2. The GWPS were finalized pursuant to § 257.95(d)(2) and are presented in **Table 7**.

4.1.1 Appendix III Statistical Methods

Based on guidance from GA EPD, statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits (PLs) combined with a 1-of-2 verification resample plan for each of the Appendix III constituents. Interwell PLs pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are significant statistical increases (SSIs). An "initial exceedance" occurs when an Appendix III constituent reported in the groundwater of a downgradient detection monitoring well exceeds the constituent's associated PL. The 1-

of-2 resample plan allows for collection of an independent resample. A confirmed exceedance is noted only when the resample confirms the initial exceedance by also exceeding the statistical limit. If the resample falls within its respective prediction limit, no exceedance is declared.

4.1.2 Appendix IV Statistical Methods

To statistically compare groundwater data to GWPS, confidence intervals are constructed for each of the detected Appendix IV constituents in each downgradient detection monitoring well with a minimum of four samples. In accordance with Section 21.1.1 of the Unified Guidance (USEPA, 2009), four independent data are the minimum population size recommended to construct confidence intervals required to assess SSLs for Appendix IV constituents.

The confidence intervals are compared to the GWPS. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its GWPS. If a confidence interval exceeds a GWPS, an SSL is identified.

USEPA revised the federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum. As described in § 257.95(h)(1-3), the GWPS is defined by the below criteria. These criteria were adopted into the GA EPD Rules for Solid Waste Management 391-3-4-.10 on February 22, 2022.

(1) The maximum contaminant level (MCL) established under § 141.62 and § 141.66.

(2) Where an MCL has not been established:

(i) Cobalt 0.006 mg/L;

(ii) Lead 0.015 mg/L;

(iii) Lithium 0.040 mg/L; and

(iv) Molybdenum 0.100 mg/L.

(3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

Following the above requirements, GWPS have been established for statistical comparison of Appendix IV constituents and are presented in **Table 7**.

4.2 Statistical Analyses Results

Based on review of the Appendix III statistical analysis discussion presented in **Appendix C**, groundwater conditions have not returned to background and assessment monitoring should continue. However, no SSLs of Appendix IV constituents were identified following statistical analyses of the August 2022 and January 2023 data sets.

5.0 MONITORING PROGRAM STATUS

Based on the statistical evaluation results presented for the reporting period, SSIs of Appendix III constituents have not returned to background levels; and therefore, Georgia Power will continue to monitor groundwater at AP-3 in accordance with the assessment monitoring program regulations of § 257.95.

6.0 CONCLUSIONS AND FUTURE ACTIONS

This *2023 Annual Groundwater Monitoring and Corrective Action Report* for Plant Hammond AP-3 was prepared to fulfill the requirements of the federal CCR Rule and the GA EPD Rules for Solid Waste Management 391-3-4-.10.

Statistical analyses of the groundwater monitoring data for AP-3 for the reporting period did not identify any SSLs of Appendix IV constituents and the site will remain in Assessment Monitoring.

The next routine semiannual assessment monitoring event for AP-3 is scheduled to begin in August 2023.

7.0 REFERENCES

Geosyntec, 2020. *Hydrogeologic Assessment Report (Revision 01) – Plant Hammond Ash Pond 3 (AP-3)*. November 2020.

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TABLES

Table 1
Monitoring Well Network Summary
Plant Hammond AP-3, Floyd County, Georgia

Well ID	Hydraulic Location	Installation Date	Northing [1]	Easting [1]	Top of Casing Elevation [2] (ft)	Top of Screen Elevation [2] (ft)	Bottom of Screen Elevation [2] (ft)	Well Depth (ft BTOC) [3]	Screen Interval Length (ft)
Detection Monitoring Well									
HGWA-1	Upgradient	12/3/2014	1550423.32	1940770.00	595.21	573.12	563.12	32.49	10
HGWA-2	Upgradient	12/2/2015	1549796.87	1939845.15	587.92	570.29	560.29	27.95	10
HGWA-3	Upgradient	12/2/2015	1549794.41	1939833.39	587.74	553.23	543.23	44.51	10
HGWA-43D	Upgradient	8/26/2020	1550422.85	1940753.80	595.08	544.08	534.08	61.25	10
HGWA-44D	Upgradient	8/25/2020	1550409.13	1940756.18	594.79	491.76	481.76	113.28	10
HGWA-45D	Upgradient	8/19/2020	1551157.68	1941907.54	586.95	535.23	525.23	62.87	10
HGWA-122	Upgradient	11/20/2014	1551251.42	1941887.11	587.90	570.54	560.54	27.76	10
HGWC-120	Downgradient	6/27/2016	1551067.24	1942926.62	605.82	548.83	538.83	67.00	10
HGWC-121A	Downgradient	7/17/2017	1550607.97	1943030.44	584.69	556.71	546.71	37.98	10
HGWC-124	Downgradient	11/13/2014	1551624.93	1942781.05	582.52	557.80	547.80	35.12	10
HGWC-125	Downgradient	5/4/2020	1550821.41	1942962.87	608.89	556.03	546.03	63.19	10
HGWC-126	Downgradient	11/25/2019	1550422.03	1942689.40	611.24	552.72	542.72	68.52	10
Piezometer									
MW-21	Upgradient	12/3/2014	1550270.15	1941809.76	586.27	570.40	560.40	26.28	10
MW-23	Downgradient	11/24/2014	1551641.44	1942496.83	584.91	563.03	553.03	32.28	10
MW-32	Downgradient	11/22/2019	1551092.83	1943021.47	585.46	559.30	549.30	36.16	10
MW-39	Downgradient	3/16/2020	1551111.45	1943089.26	580.42	564.93	554.93	25.82	10
MW-41	Downgradient	5/18/2020	1551158.16	1943196.47	577.25	563.20	553.20	24.38	10
MW-46D	Downgradient	8/18/2020	1551056.478	1942929.10	605.72	513.92	503.92	102.05	10

Notes:
ft = feet
BTOC = below top of casing
(1) Coordinates in North American Datum (NAD) 1983, State Plane, Georgia-West, feet. Survey data certified by GEL Solutions May 19, 2020. Survey data for HGWA-43D, HGWA-44D, HGWA-45D, and MW-46D certified by GEL Solutions September 10, 2020.
(2) Elevations referenced to the North American Vertical Datum of 1988 (NAVD88). Survey completed by GEL Solutions May 19, 2020. Survey data for HGWA-43D, HGWA-44D, HGWA-45D, and MW-46D certified by GEL Solutions September 10, 2020.
(3) Total well depth accounts for sump if sump depth data was provided on well construction logs.

Table 2
Groundwater Sampling Event Summary
Plant Hammond AP-3, Floyd County, Georgia

Well ID	Hydraulic Location	August 2-4, 2022	January 23-25, 2023	Status of Monitoring Well
Purpose of Sampling Event:		**Assessment**	**Assessment**	
Detection Monitoring Well				
HGWA-1	Upgradient	X	X	Assessment
HGWA-2	Upgradient	X	X	Assessment
HGWA-3	Upgradient	X	X	Assessment
HGWA-43D	Upgradient	X	X	Assessment
HGWA-44D	Upgradient	X	X	Assessment
HGWA-45D	Upgradient	X	X	Assessment
HGWA-122	Upgradient	X	X	Assessment
HGWC-120	Downgradient	X	X	Assessment
HGWC-121A	Downgradient	X	X	Assessment
HGWC-124	Downgradient	X	X	Assessment
HGWC-125	Downgradient	X	X	Assessment
HGWC-126	Downgradient	X	X	Assessment

Table 3
Summary of Groundwater and Surface Water Elevations
Plant Hammond AP-3, Floyd County, Georgia

Well ID	Top of Casing Elevation (ft) [1]	August 1, 2022		January 23, 2023	
		Depth to Water (ft BTOC)	Groundwater Elevation (ft)[1]	Depth to Water (ft BTOC)	Groundwater Elevation (ft)[1]
Detection Monitoring Well					
HGWA-1	595.21	18.59	576.62	10.25	584.96
HGWA-2	587.92	10.71	577.21	8.05	579.87
HGWA-3	587.74	10.45	577.29	7.50	580.24
HGWA-43D	595.08	18.47	576.61	10.23	584.85
HGWA-44D	594.79	18.01	576.78	10.96	583.83
HGWA-45D	586.95	11.50	575.45	5.13	581.82
HGWA-122	587.90	12.55	575.35	6.14	581.76
HGWC-120	605.82	40.44	565.38	39.82	566.00
HGWC-121A	584.69	17.65	567.04	17.03	567.66
HGWC-124	582.52	14.02	568.50	10.44	572.08
HGWC-125	608.89	43.76	565.13	43.36	565.53
HGWC-126	611.24	40.90	570.34	39.84	571.40
Piezometer					
MW-21	586.27	8.43	577.84	4.54	581.73
MW-23	584.91	12.65	572.26	7.51	577.40
MW-32	585.46	20.09	565.37	19.49	565.97
MW-39	580.42	15.10	565.32	14.49	565.93
MW-41	577.25	12.05	565.20	11.54	565.71
MW-46D	605.72	40.22	565.50	39.73	565.99
Surface Water Level Gauge Point					
Cabin Creek (Hwy 20)	594.46	30.20	564.26	29.45	565.01
Cabin Creek (Railroad bridge)	586.60	22.54	564.06	25.62	560.98

Notes:
ft = feet
ft BTOC = feet below top of casing
(1) Elevations referenced to the North American Vertical Datum of 1988 (ft NAVD88). Survey data certified on May 19, 2020. Survey data for HGWA-43D, HGWA-44D, HGWA-45D, and MW-46D certified on September 10, 2020.

Table 4
Horizontal Groundwater Gradient and Flow Velocity Calculations
Plant Hammond AP-3, Floyd County, Georgia

	August 1, 2022				January 23, 2023				
Flow Path Direction[(1)]	**h_1 (ft)**	**h_2 (ft)**	**L (ft)**	**i (ft/ft)**	**h_1 (ft)**	**h_2 (ft)**	**L (ft)**	**i (ft/ft)**	**Average i (ft/ft)**
Easterly Flow Path (HGWA-122 to MW-32)	575.35	565.37	1,120	0.0089	581.76	565.97	1,120	0.014	0.012

Flow Path Direction [(1)]	**K_h (ft/day)**	**n_e**	**Average i (ft/ft)**	**V (ft/day)[(2)]**
Easterly Flow Path (HGWA-122 to MW-32)	2.76	0.15	0.012	0.22

Notes:

ft = feet

ft/day = feet per day

ft/ft = feet per foot

h_1 and h_2 = groundwater elevation at location 1 and 2

$i = h_1-h_2/L$ = horizontal hydraulic gradient

K_h = horizontal hydraulic conductivity

L = distance between location 1 and 2 along the flow path

n_e = effective porosity

V = groundwater flow velocity

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

(2) Groundwater flow velocity equation: $V = [K_h * i] / n_e$

Table 5
Summary of Semiannual Groundwater Analytical Data
Plant Hammond AP-3, Floyd County, Georgia

	Well ID:	HGWA-1	HGWA-1	HGWA-2	HGWA-2	HGWA-3	HGWA-3	HGWA-43D	HGWA-43D	HGWA-44D	HGWA-44D	HGWA-45D	HGWA-45D
	Sample Date:	8/2/2022	1/24/2023	8/2/2022	1/24/2023	8/2/2022	1/23/2023	8/2/2022	1/24/2023	8/2/2022	1/24/2023	8/2/2022	1/24/2023
	Parameter [1,2]												
APPENDIX III	Boron	0.012 J	0.015 J	0.047	0.046	<0.0086	0.012 J	0.043	0.037 J	0.31	0.44	0.14	0.14
	Calcium	117	117	31.2	29.4	84.6	85.0	54.1	56.6	20.9	13.2	49.9	53.9
	Chloride	14.1	9.0	7.8	7.1	5.9	5.6	4.3	4.3	19.8	24.9	3.9	3.5
	Fluoride	0.090 J	0.089 J	0.053 J	0.053 J	0.067 J	0.061 J	0.22	0.23	0.80	1.3	0.21	0.19
	pH [3]	7.03	6.76	4.57	5.23	7.02	7.32	7.15	7.56	7.90	8.22	7.39	7.15
	Sulfate	58.1	48.3	86.9	79.7	43.5	39.5	37.0	34.7	13.2	10.1	2.1	5.2
	TDS	400	369	196	164	287	293	278	271	311	363	261	289
APPENDIX IV	Antimony	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078	<0.00078
	Arsenic	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	0.0027 J	<0.0022	<0.0022
	Barium	0.04	0.033	0.11	0.088	0.16	0.13	0.35	0.28	0.37	0.18	0.64	0.57
	Beryllium	<0.000054	<0.000054	0.00019 J	0.00016 J	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054
	Cadmium	<0.00011	<0.00011	0.00023 J	0.00021 J	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011
	Chromium	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011
	Cobalt	0.00054 J	<0.00039	0.024	0.024	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039	<0.00039
	Fluoride	0.090 J	0.089 J	0.053 J	0.053 J	0.067 J	0.061 J	0.22	0.23	0.80	1.3	0.21	0.19
	Lead	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089
	Lithium	<0.00073	0.00092 J	0.0013 J	0.0014 J	0.0030 J	0.003 J	0.0019 J	0.002 J	0.041	0.064	0.0045 J	0.0044 J
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074	<0.00074	0.0042 J	0.0027 J	0.0020 J	0.0026 J	<0.00074	<0.00074
	Comb. Radium 226/228	0.203 U	0.549 U	0.861 U	0.829 U	0.400 U	0.311 U	0.662 U	1.25	0.952 U	0.421 U	0.509 U	0.743 U
	Selenium	<0.0014	<0.0014	0.0014 J	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
	Thallium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018

Notes:

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

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

TDS = Total dissolved solids

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

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

(2) Metals were analyzed by EPA Method 6010D, 6020B, and 7470A, anions were analyzed by EPA Method 300.0, TDS was analyzed by SM2540C-2015, and combined radium 226/228 by EPA Methods 9315/9320.

(3) The pH value presented was recorded at the time of sample collection in the field.

Table 5
Summary of Semiannual Groundwater Analytical Data
Plant Hammond AP-3, Floyd County, Georgia

	Well ID:	HGWA-122	HGWA-122	HGWC-120	HGWC-120	HGWC-121A	HGWC-121A	HGWC-124	HGWC-124	HGWC-125	HGWC-125	HGWC-126	HGWC-126
	Sample Date:	8/2/2022	1/24/2023	8/4/2022	1/25/2023	8/4/2022	1/24/2023	8/4/2022	1/24/2023	8/4/2022	1/25/2023	8/4/2022	1/25/2023
	Parameter [1,2]												
APPENDIX III	Boron	0.18	0.17	1.0	0.94	1.8	1.6	0.36	0.34	1.4	1.4	0.023 J	0.014 J
	Calcium	69.5	63.3	173	161	160	156	103	96.2	170	171	141	132
	Chloride	2.7	2.4	2.7	2.6	15.4	14.6	2.6	2.5	11.6	8.7	8.7	8.7
	Fluoride	0.10	0.13	0.38	0.42	0.18	0.18	0.074 J	0.068 J	0.15	0.18	0.50	0.57
	pH [3]	6.67	6.43	6.93	6.87	6.80	6.75	7.15	7.05	6.09	6.32	6.99	6.89
	Sulfate	41.5	36.5	230	230	162	151	73.1	69.6	331	308	68.3	63.7
	TDS	217	246	632	656	640	602	334	350	706	738	510	517
APPENDIX IV	Antimony	<0.00078	<0.00078	<0.00078	<0.00078	0.0016 J	<0.00078	<0.00078	0.0018 J	<0.00078	<0.00078	<0.00078	<0.00078
	Arsenic	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022	<0.0022
	Barium	0.038	0.035	0.048	0.051	0.06	0.059	0.068	0.068	0.037	0.042	0.24	0.24
	Beryllium	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054	<0.000054
	Cadmium	<0.00011	<0.00011	<0.00057	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011	<0.00011
	Chromium	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.0014 J
	Cobalt	<0.00039	<0.00039	0.0058	0.0055	<0.00039	<0.00039	<0.00039	<0.00039	0.014	0.0091	<0.00039	<0.00039
	Fluoride	0.10	0.13	0.38	0.42	0.18	0.18	0.074 J	0.068 J	0.15	0.18	0.50	0.57
	Lead	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089
	Lithium	<0.00073	<0.00073	0.023 J	0.018 J	0.0069 J	0.0066 J	0.0011 J	0.0011 J	0.0035 J	0.0046 J	0.0034 J	0.0046 J
	Mercury	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013	<0.00013
	Molybdenum	0.0042 J	0.0035 J	0.032	0.03	<0.00074	<0.00074	<0.00074	<0.00074	0.0023 J	0.0054 J	<0.00074	<0.00074
	Comb. Radium 226/228	0.573 U	0.442 U	0.687 U	0.992	1.16 U	0.757 U	0.160 U	0.601 U	0.971 U	1.2	1.34 U	1.91
	Selenium	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014
	Thallium	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018

Table 6
Summary of Geochemical Analytical Data
Plant Hammond AP-3, Floyd County, Georgia

	Well ID:	HGWA-1	HGWA-2	HGWA-3	HGWA-43D	HGWA-44D	HGWA-45D	HGWA-122	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
	Sample Date:	8/2/2022	8/2/2022	8/2/2022	8/2/2022	8/2/2022	8/2/2022	8/2/2022	8/4/2022	8/4/2022	8/4/2022	8/4/2022	8/4/2022
	Parameter [1,2]												
GEOCHEM	Bicarbonate Alkalinity	266	12.8	179	203	263	238	155	291	352	239	189	434
	Carbonate Alkalinity	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	Total Alkalinity	266	12.8	179	203	263	238	155	291	352	239	189	434
	Iron	0.21	0.72	1.0	0.31	0.24	0.26	0.81	0.65	0.086	0.26	0.10	1.5
	Magnesium	4.4	4.0	5.2	17.2	12.2	18.7	5.2	23.3	23.8	9.5	27.3	26.5
	Manganese	0.48	0.80	0.24	0.019 J	0.013 J	0.015 J	0.66	1.4	0.73	0.38	2.3	0.19
	Potassium	0.28	1.0	0.37	0.80	3.9	1.8	1.8	7.2	1.1	0.83	3.4	0.78
	Sodium	28.5	11.2	5.7	24.8	94.6	24.6	9.5	8.7	34.3	5.6	16.2	31.3
	Sulfide	0.062 J	<0.050	<0.050	<0.050	0.058 J	0.16	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Notes:

< = Indicates the parameter was not detected above the analytical method detection limit (MDL).

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

(1) Ions were analyzed by EPA Method 6010D, alkalinity was analyzed by SM2320B-2011, and sulfide was analyzed by SM4500-S2D-2011.

(2) Calcium, chloride, and sulfate are considered major ions, but are reported as Appendix III constituents on Table 5.

Table 7

Summary of Background Concentrations and Groundwater Protection Standards
Plant Hammond AP-3, Floyd County, Georgia

Analyte	Units	MCL	CCR-Rule Specified[1]	Background [2]	GWPS[3,4]
Antimony	mg/L	0.006	N/A	0.003	0.006
Arsenic	mg/L	0.01	N/A	0.005	0.01
Barium	mg/L	2	N/A	0.64	2
Beryllium	mg/L	0.004	N/A	0.0005	0.004
Cadmium	mg/L	0.005	N/A	0.0005	0.005
Chromium	mg/L	0.1	N/A	0.0079	0.1
Cobalt	mg/L	N/A	0.006	0.038	0.038
Fluoride	mg/L	4	N/A	0.96 , 1.3	4
Lead	mg/L	N/A	0.015	0.001	0.015
Lithium	mg/L	N/A	0.040	0.048 , 0.064	0.048 , 0.064
Mercury	mg/L	0.002	N/A	0.0002	0.002
Molybdenum	mg/L	N/A	0.10	0.01	0.10
Selenium	mg/L	0.05	N/A	0.005	0.05
Thallium	mg/L	0.002	N/A	0.001	0.002
Combined Radium-226/228	pCi/L	5	N/A	1.65 , 1.62	5

Notes:

CCR = Coal Combustion Residuals

GWPS = Groundwater Protection Standard

MCL = Maximum Contaminant Level

mg/L = milligrams per liter

N/A = Not Applicable

pCi/L = picocuries per liter

(1) On February 22, 2022, the Georgia Environmental Protection Division (GA EPD) adopted the federally promulgated GWPS for cobalt, lithium, lead, and molybdenum.

(2) The background limits were used when determining the GWPS under 40 CFR 257.95(h) and GA EPD Rule 391-3-4-.10(6)(a). Where two numbers are present, they denote the different background levels for each of the two semiannual monitoring events in the order that they were determined.

(3) Under 40 CFR 257.95(h)(1-3) the GWPS is: (i) the maximum contaminant level (MCL) established under §§141.62 and 141.66 of this title; (ii) where an MCL has not been established a rule-specific GWPS; or (iii) background levels for constituents where the background level is higher than the MCL rule-specified GWPS.

(4) The GWPS apply to the August 2022 and January 2023 sampling events. Where two numbers are present, they denote the different background levels for each of the two semiannual monitoring events in the order that they were determined.

FIGURES

N

LEGEND

Plant Hammond Property Boundary

Note:
1. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, September 2022.

0 625 1,250 2,500

SCALE IN FEET

SITE LOCATION MAP

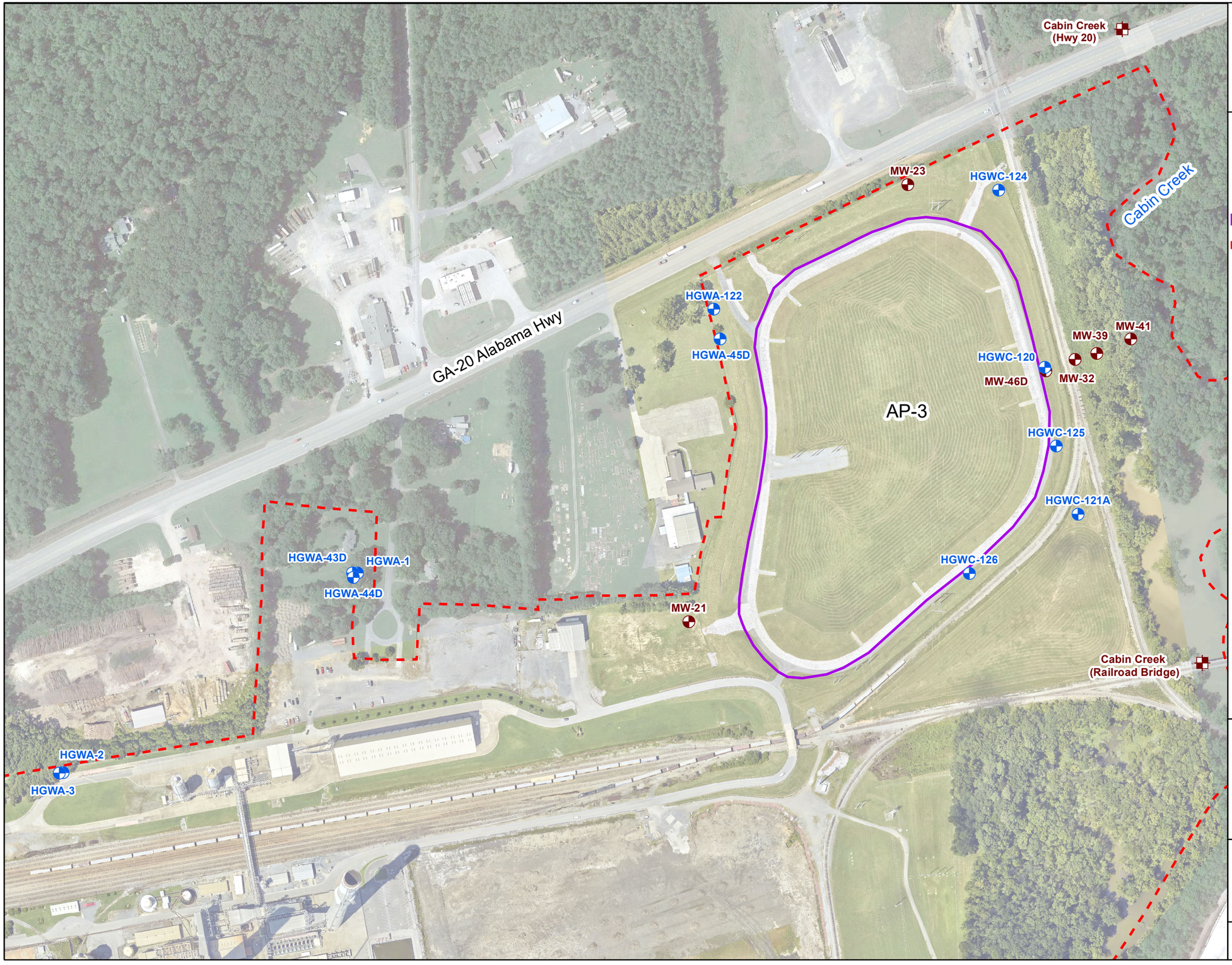
GEORGIA POWER COMPANY
PLANT HAMMOND AP-3
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | JULY 2023

FIGURE 1



N

LEGEND

- Detection Monitoring Well
- Piezometer
- Surface Water Level Gauge Point
- Approximate AP-3 Boundary
- Plant Hammond Property Boundary

Note:
1. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, September 2022.

0 150 300 600

SCALE IN FEET

MONITORING WELL NETWORK AND SAMPLING LOCATION MAP

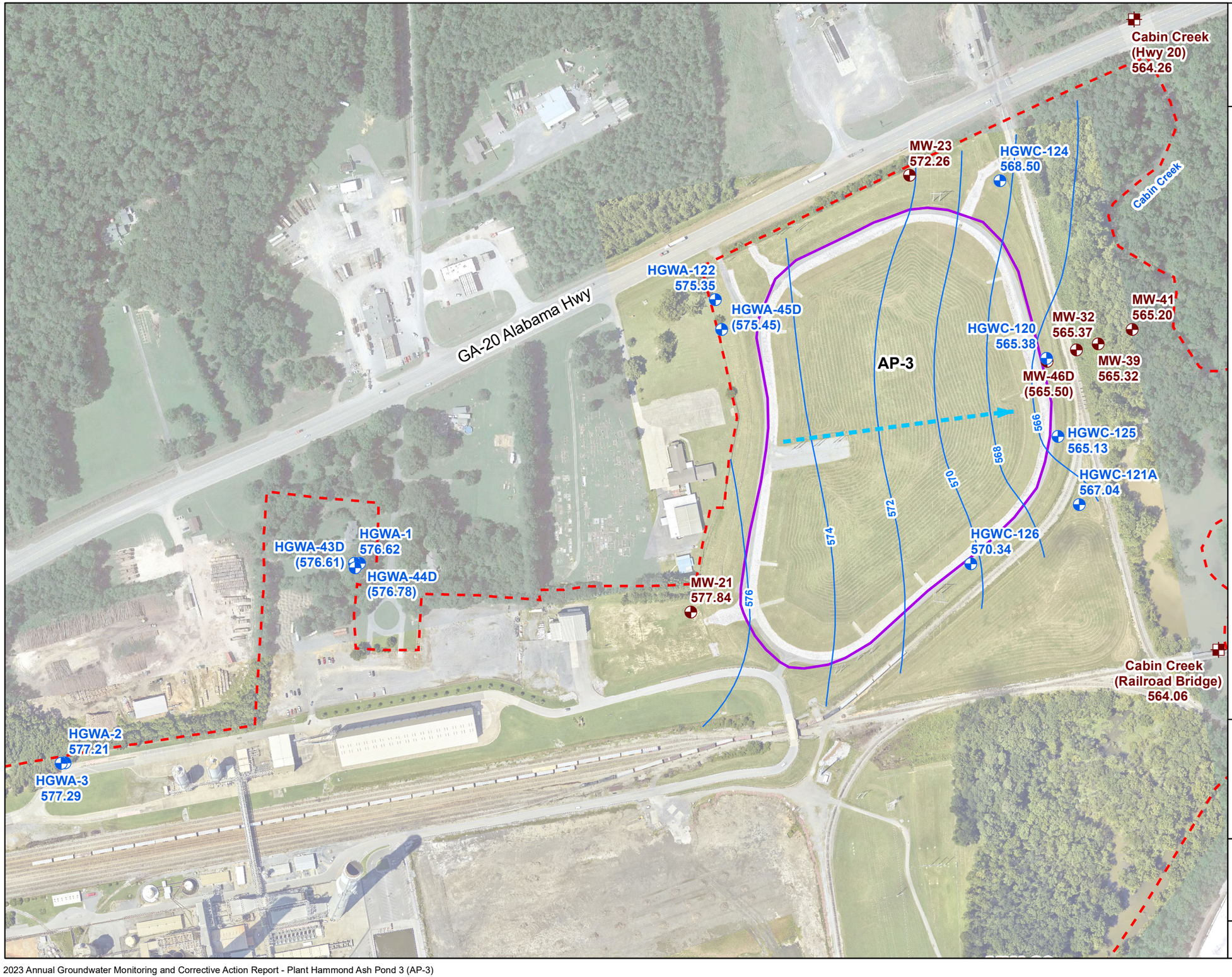
GEORGIA POWER COMPANY
PLANT HAMMOND AP-3
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | JULY 2023

FIGURE 2



N

LEGEND

- Detection Monitoring Well
- Piezometer
- Surface Water Level Gauge Point
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow Direction
- Approximate AP-3 Boundary
- Plant Hammond Property Boundary

GEORGIA REGISTERED No. PE036642 PROFESSIONAL ENGINEER WHITNEY B. LAW

Notes:
1. Water level elevation recorded on August 1, 2022. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
2. Groundwater elevations in parentheses were not used in the development of groundwater contours due to wells being screened at a different elevation in the formation/aquifer.
3. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, September 2022.

0 150 300 600

SCALE IN FEET

POTENTIOMETRIC SURFACE CONTOUR MAP - AUGUST 2022

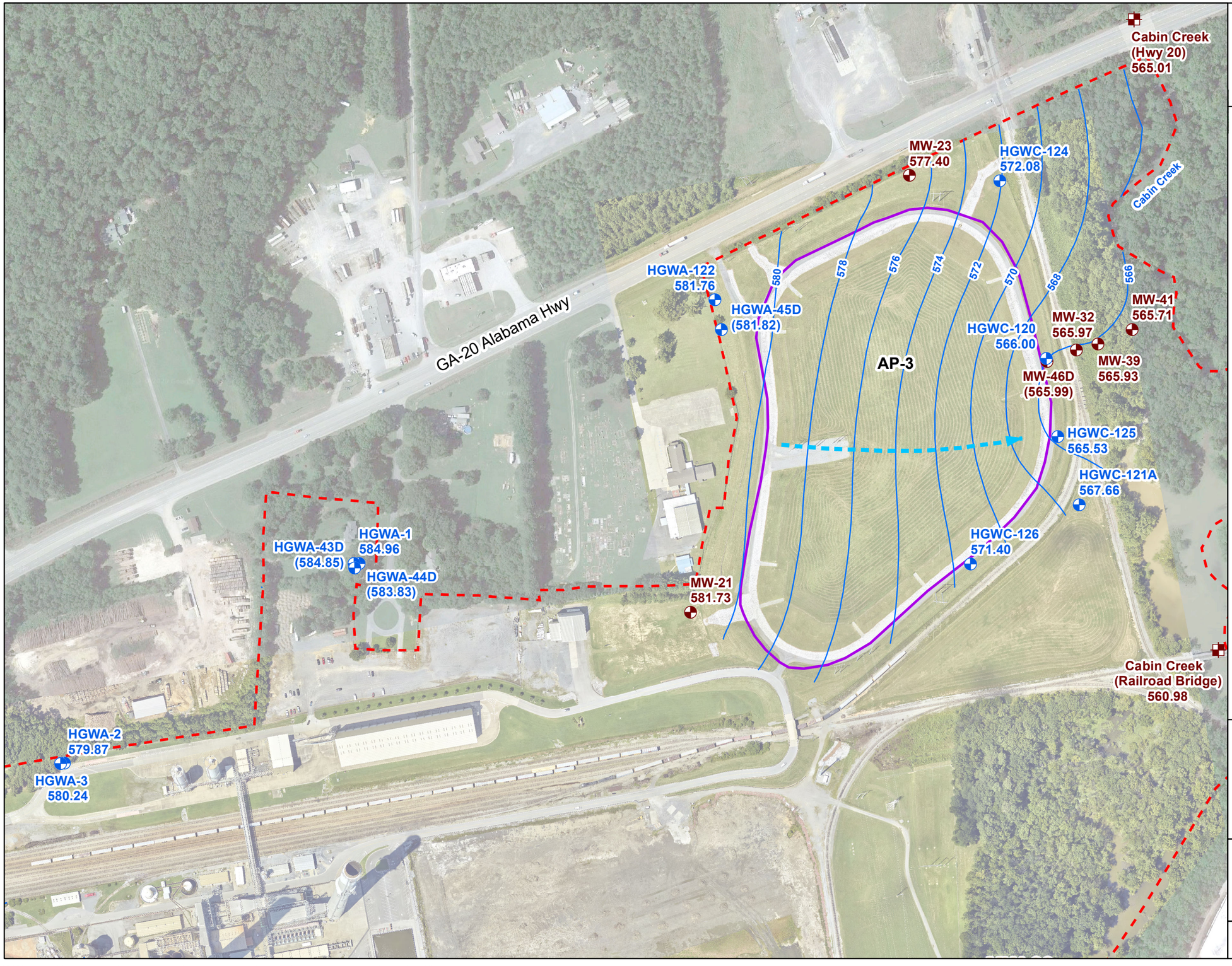
GEORGIA POWER COMPANY
PLANT HAMMOND AP-3
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | JULY 2023

FIGURE 3



N

LEGEND

- Detection Monitoring Well
- Piezometer
- Surface Water Level Gauge Point
- Groundwater Elevation Iso-Contour
- Approximate Groundwater Flow Direction
- Approximate AP-3 Boundary
- Plant Hammond Property Boundary

GEORGIA REGISTERED No. PE036642 PROFESSIONAL ENGINEER WHITNEY B. LAW

Notes:
1. Water level elevation recorded on January 23, 2023. Elevation provided in feet (ft) referenced to the North American Vertical Datum (NAVD) 88.
2. Groundwater elevations in parentheses were not used in the development of groundwater contours due to wells being screened at a different elevation in the formation/aquifer.
3. Aerial photograph source: Google Earth Pro, August 2019 and Georgia Power Company, September 2022.

0 150 300 600

SCALE IN FEET

POTENTIOMETRIC SURFACE CONTOUR MAP - JANUARY 2023

GEORGIA POWER COMPANY
PLANT HAMMOND AP-3
ROME, FLOYD COUNTY, GEORGIA

Prepared For: Georgia Power

Prepared By: Geosyntec consultants

KENNESAW, GA | JULY 2023

FIGURE 4

APPENDIX A

Well Maintenance and Repair Documentation Memoranda

August 2022

Geosyntec consultants

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144
PH 678.202.9500
FAX 678.202.9501
www.geosyntec.com

MEMORANDUM

DATE: December 6, 2022

TO: Kristen Jurinko, P.G., Southern Company Services, Inc.

CC: Ben Hodges, P.G. Georgia Power Company

FROM: Geosyntec Consultants

SUBJECT: **Plant Hammond Ash Pond 3 (AP-3) – Well Maintenance and Repair Documentation, Georgia Power Company**

Geosyntec Consultants has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant Hammond AP-3 during the August 2022 sampling event. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells. Documentation of the well inspections are provided as an attachment to this memorandum.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Hammond/AP-3	8/1/2022	All Wells	Checked and cleared weep holes of debris.
Hammond/AP-3	8/1/2022	HGWC-121A	Assessed crack in well casing lid. Lock was not impacted and well is secure.

ATTACHMENT

Well Inspection Forms

Well Inspection Form

Plant Name/Unit Name: Plant Hammond, AP-1/2/3
Field Technician: Thomas Heesler
Well ID: HGWA-1

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?		✓	
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.	Bladder		
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?		XD	N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-1/2/3
Field Technician: Thomas Kessler
Well ID: HGWA-7

Date (mm/dd/yyyy): 08/01/2024
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)		✓	
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Blue Jay
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-1/2/3
Field Technician: Thomas K.
Well ID: HGWA-3

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		N/A
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-1&3
Field Technician: Thomas K.
Well ID: Hammond-43D

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			W/S
d	Does the desiccant need to be replaced on the water quality sonde?			W/S
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-1/2/3
Field Technician: Thomas K
Well ID: HGWA-44D

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / Unit 3
Field Technician: Thomas Kessler
Well ID: HGWA-45D

Date (mm/dd/yyyy): 05/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond/AP-3
Field Technician: Thomas M
Well ID: HGW A-12R

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	Surface Pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal Casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling and Data Collection Equipment			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	Corrective Actions			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: Thomas K
Well ID: HGWC-12C

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?			
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	Surface Pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal Casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling and Data Collection Equipment			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	Corrective Actions			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name Plant Hammond / AP-3
Field Technician Thomas M.
Well ID HGAC-120-1214

Date (mm/dd/yyyy) 08/01/2022
Field Conditions Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?		✓	outer l.d cracked.
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond/AP-3
Field Technician: Thomas K
Well ID: HGWC-124

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond AP-3
Field Technician: Thomas K
Well ID: HGWC-125

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?			
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?			
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.	Bladder		
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / HP-3
Field Technician: Thomas K.
Well ID: HamWC-12C

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 86°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?			
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Bladder
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: Thomas K
Well ID: MW-21

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: Thomas K.
Well ID: MW-23

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 86°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?	~~✓~~	✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?			
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.	N/A		
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: Thomas K.
Well ID: MW-32

Date (mm/dd/yyyy): 08/01/2024
Field Conditions: Sunny, 80

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?			
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Thomas Kessler
Field Technician: Plant Hammond / AP-3
Well ID: MW-39

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: Thomas K.
Well ID: MW-41

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / MP-3
Field Technician: Thomas Kressler
Well ID: MW-46D

Date (mm/dd/yyyy): 08/01/2022
Field Conditions: Sunny, 80°

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?			
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.	N/A		
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

January 2023

Geosyntec consultants

1255 Roberts Boulevard, Suite 200
Kennesaw, Georgia 30144
PH 678.202.9500
FAX 678.202.9501
www.geosyntec.com

MEMORANDUM

DATE: January 28, 2023

TO: Kristen Jurinko, P.G., Southern Company Services,Inc.

CC: Ben Hodges, P.G., Georgia Power Company

FROM: Geosyntec Consultants

SUBJECT: **Plant Hammond Ash Pond 3 (AP-3) – Well Maintenance and Repair Documentation, Georgia Power Company**

Geosyntec Consultants has prepared this memorandum to provide documentation of groundwater monitoring well maintenance and/or repair performed at Plant Hammond AP-3 during the January 2023 sampling event. All repairs and maintenance were completed in accordance with the Georgia Environmental Protection Division (GA EPD) guidance on routine visual inspections of groundwater monitoring wells. Documentation of the well inspections are provided as an attachment to this memorandum.

Georgia Power Site/Unit	Date Performed	Well ID	Maintenance/ Repair Performed
Hammond/AP-3	1/23/2022	All Wells	Checked and cleared weep holes of debris.

ATTACHMENT

Well Inspection Forms

Well Inspection Form

Plant Name/Unit Name: Plant Hammond AP-1, AP-2, AP-3
Field Technician: C. CAIN
Well ID: HGWA-1

Date (mm/dd/yyyy): 1/23/23
Field Conditions: Sunny 50F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.	Sampling equipment		
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?			NA
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond AP-1/2/3
Field Technician: C. CAIN
Well ID: HGWA-2

Date (mm/dd/yyyy): 1/23/23
Field Conditions: Sunny 50

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	Y		
b	Is the well properly identified with the correct well ID?	Y		
c	Is the well in a high traffic area?		Y	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	Y		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Y		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	Y		
b	Is the casing free of degradation or deterioration?	Y		
c	Does the casing have a functioning weep hole?	Y		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Y		
e	Is the well locked?	Y		
f	If locked, is the well lock in good condition?	Y		
g	Is the well lid in good condition?	Y		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	Y		
b	Is the well pad sloped away from the protective casing?	Y		
c	Is the well pad in complete contact with the protective casing?	Y		
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)?	Y		
e	Is the pad surface clean (not covered with sediment or debris)?	Y		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	Y		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	Y		
c	Is the well properly vented for equilibration of air pressure?	Y		
d	Is the survey point clearly marked on the inner casing?	Y		
e	Is the depth of the well consistent with the original well log?	Y		
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)	Y		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	Y		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?			NA
f	Does the well recharge adequately when purged?	Y		
g	Does the well require redevelopment (low flow, excess turbidity)?		Y	
6	**Corrective Actions**			
a	Are corrective actions needed?		Y	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond AP-1/2/3
Field Technician: C. CAIN
Well ID: HGWA-3

Date (mm/dd/yyyy): 1/23/23
Field Conditions: Sunny, 50

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	Y		
b	Is the well properly identified with the correct well ID?	Y		
c	Is the well in a high traffic area?		N	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	Y		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	Y		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	X		
b	Is the casing free of degradation or deterioration?	X		
c	Does the casing have a functioning weep hole?	Y		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	Y		
e	Is the well locked?	X		
f	If locked, is the well lock in good condition?	Y		
g	Is the well lid in good condition?	X		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	X		
b	Is the well pad sloped away from the protective casing?	X		
c	Is the well pad in complete contact with the protective casing?	X		
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)?	Y		
e	Is the pad surface clean (not covered with sediment or debris)?	X		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	Y		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	X		
c	Is the well properly vented for equilibration of air pressure?	X		
d	Is the survey point clearly marked on the inner casing?	X		
e	Is the depth of the well consistent with the original well log?	X		
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)	Y		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.	Sampling equipment		
b	If equipped with dedicated sampling equipment, is it in good operational condition?	No		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?			NA
f	Does the well recharge adequately when purged?	Y		
g	Does the well require redevelopment (low flow, excess turbidity)?		Y	
6	**Corrective Actions**			
a	Are corrective actions needed?		Y	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond Bp-1/2/3
Field Technician: C. CAIN
Well ID: HGWA-43D

Date (mm/dd/yyyy): 1/23/23
Field Conditions: Sunny 55

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			Sampling Equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?			NA
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond AP-1, AP-2, AP-3
Field Technician: C. CAIN
Well ID: HGWA-440

Date (mm/dd/yyyy): 1/23/23
Field Conditions: 50F sunny

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.	NA		
b	If equipped with dedicated sampling equipment, is it in good operational condition?			NA
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			NA
d	Does the desiccant need to be replaced on the water quality sonde?			NA
e	If equipped with a water level data logger, is it in good operational condition?	X	✓ 1/23/23	
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: HGWA-45D

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?	N/A	✓	N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: HGWA-122

Date (mm/dd/yyyy): 01/27/2023
Field Conditions: sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		~~N/A~~ @ 1-27-2023
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: HG-WC-120

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Seward
Well ID: HG-WC-12.1A

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1 Location/Identification				
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3 Surface Pad				
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4 Internal Casing				
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5 Sampling and Data Collection Equipment				
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6 Corrective Actions				
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Seward
Well ID: HGWC - 124

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: HGWC-125

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szmost
Well ID: HGWC-126

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	Location/Identification			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	Protective Casing			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	Surface Pad			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	Internal Casing			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	Sampling and Data Collection Equipment			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			dedicated sampling equipment
b	If equipped with dedicated sampling equipment, is it in good operational condition?	✓		
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?	✓		
g	Does the well require redevelopment (low flow, excess turbidity)?		✓	
6	Corrective Actions			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: MW-21

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: MW-23

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: MW-32

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: MW-39

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: MW-41

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

Well Inspection Form

Plant Name/Unit Name: Plant Hammond / AP-3
Field Technician: A. Szwast
Well ID: MW-46D

Date (mm/dd/yyyy): 01/23/2023
Field Conditions: Sunny, 45°F

		Yes	No	Comments
1	**Location/Identification**			
a	Is the well visible and accessible?	✓		
b	Is the well properly identified with the correct well ID?	✓		
c	Is the well in a high traffic area?		✓	
d	Are appropriate measures in place to protect the well (e.g., bollards)?	✓		
e	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	✓		
2	**Protective Casing**			
a	Is the protective casing free from apparent damage and able to be secured?	✓		
b	Is the casing free of degradation or deterioration?	✓		
c	Does the casing have a functioning weep hole?	✓		
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	✓		
e	Is the well locked?	✓		
f	If locked, is the well lock in good condition?	✓		
g	Is the well lid in good condition?	✓		
3	**Surface Pad**			
a	Is the well pad in good condition (not cracked or broken)?	✓		
b	Is the well pad sloped away from the protective casing?	✓		
c	Is the well pad in complete contact with the protective casing?	✓		
d	Is the well pad in complete contact with the ground surface and stable (not undermined by erosion, animal burrows, and does not move when stepped on)?	✓		
e	Is the pad surface clean (not covered with sediment or debris)?	✓		
4	**Internal Casing**			
a	Does the cap prevent entry of foreign material into the well?	✓		
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	✓		
c	Is the well properly vented for equilibration of air pressure?	✓		
d	Is the survey point clearly marked on the inner casing?	✓		
e	Is the depth of the well consistent with the original well log?	✓		
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	✓		
5	**Sampling and Data Collection Equipment**			
a	Indicate if the well is equipped with **dedicated sampling equipment**, a **dedicated water quality sonde**, and/or **dedicated water level data logger**.			N/A
b	If equipped with dedicated sampling equipment, is it in good operational condition?			N/A
c	If equipped with a dedicated water quality sonde, is it in good operational condition?			N/A
d	Does the desiccant need to be replaced on the water quality sonde?			N/A
e	If equipped with a water level data logger, is it in good operational condition?			N/A
f	Does the well recharge adequately when purged?			N/A
g	Does the well require redevelopment (low flow, excess turbidity)?			N/A
6	**Corrective Actions**			
a	Are corrective actions needed?		✓	

If yes, indicate here:

APPENDIX B

Laboratory Analytical and Field Sampling Reports

LABORATORY ANALYTICAL REPORTS

August 2022

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

November 03, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 04, 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

Revision 1: Issued on 11/3/22 to update the collection time for sample HGWA-3.

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

Sincerely,

Nicole D'Oleo

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

Enclosures

cc: Noelia Gangi, Georgia Power
Ben Hodges, Georgia Power
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Laura Midkiff, Georgia Power
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Michael Smilley, Georgia Power
Tina Sullivan, ERM
Anthony Szwast, Geosyntec
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Pace Analytical Services Charlotte
South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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

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

SAMPLE SUMMARY

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92618829001	**HGWA-1**	Water	08/02/22 09:44	08/04/22 12:30
92618829002	**HGWA-2**	Water	08/02/22 12:28	08/04/22 12:30
92618829003	**HGWA-3**	Water	08/02/22 14:08	08/04/22 12:30
92618829004	**HGWA-43D**	Water	08/02/22 09:33	08/04/22 12:30
92618829005	**HGWA-44D**	Water	08/02/22 10:42	08/04/22 12:30

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SAMPLE ANALYTE COUNT

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92618829001	**HGWA-1**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618829002	**HGWA-2**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618829003	**HGWA-3**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618829004	**HGWA-43D**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618829005	**HGWA-44D**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Lab ID	Sample ID	Method	Analysts	Analytes Reported

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

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SUMMARY OF DETECTION

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618829001	**HGWA-1**					
	Performed by	CUSTOMER			08/05/22 12:45	
	pH	7.03	Std. Units		08/05/22 12:45	
EPA 6010D	Iron	0.21	mg/L	0.040	08/11/22 15:26	
EPA 6010D	Manganese	0.48	mg/L	0.040	08/11/22 15:26	
EPA 6010D	Potassium	0.28	mg/L	0.20	08/11/22 15:26	
EPA 6010D	Sodium	28.5	mg/L	1.0	08/11/22 15:26	
EPA 6010D	Calcium	117	mg/L	1.0	08/11/22 15:26	
EPA 6010D	Magnesium	4.4	mg/L	0.050	08/11/22 15:26	
EPA 6020B	Barium	0.039	mg/L	0.0050	08/10/22 20:09	
EPA 6020B	Boron	0.012J	mg/L	0.040	08/10/22 20:09	
EPA 6020B	Cobalt	0.00054J	mg/L	0.0050	08/10/22 20:09	
SM 2540C-2015	Total Dissolved Solids	400	mg/L	10.0	08/09/22 10:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	266	mg/L	5.0	08/10/22 13:04	
SM 2320B-2011	Alkalinity, Total as CaCO3	266	mg/L	5.0	08/10/22 13:04	
SM 4500-S2D-2011	Sulfide	0.062J	mg/L	0.10	08/06/22 03:40	
EPA 300.0 Rev 2.1 1993	Chloride	14.1	mg/L	1.0	08/12/22 17:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.090J	mg/L	0.10	08/12/22 17:33	
EPA 300.0 Rev 2.1 1993	Sulfate	58.1	mg/L	1.0	08/12/22 17:33	
92618829002	**HGWA-2**					
	Performed by	CUSTOMER			08/05/22 12:45	
	pH	4.57	Std. Units		08/05/22 12:45	
EPA 6010D	Iron	0.72	mg/L	0.040	08/11/22 15:31	
EPA 6010D	Manganese	0.80	mg/L	0.040	08/11/22 15:31	
EPA 6010D	Potassium	1.0	mg/L	0.20	08/11/22 15:31	
EPA 6010D	Sodium	11.2	mg/L	1.0	08/11/22 15:31	
EPA 6010D	Calcium	31.2	mg/L	1.0	08/11/22 15:31	
EPA 6010D	Magnesium	4.0	mg/L	0.050	08/11/22 15:31	
EPA 6020B	Barium	0.11	mg/L	0.0050	08/10/22 20:15	
EPA 6020B	Beryllium	0.00019J	mg/L	0.00050	08/10/22 20:15	
EPA 6020B	Boron	0.047	mg/L	0.040	08/10/22 20:15	
EPA 6020B	Cadmium	0.00023J	mg/L	0.00050	08/10/22 20:15	
EPA 6020B	Cobalt	0.024	mg/L	0.0050	08/10/22 20:15	
EPA 6020B	Lithium	0.0013J	mg/L	0.030	08/10/22 20:15	
EPA 6020B	Selenium	0.0014J	mg/L	0.0050	08/10/22 20:15	
SM 2540C-2015	Total Dissolved Solids	196	mg/L	10.0	08/09/22 10:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	12.8	mg/L	5.0	08/10/22 11:59	
SM 2320B-2011	Alkalinity, Total as CaCO3	12.8	mg/L	5.0	08/10/22 11:59	
EPA 300.0 Rev 2.1 1993	Chloride	7.8	mg/L	1.0	08/12/22 17:49	
EPA 300.0 Rev 2.1 1993	Fluoride	0.053J	mg/L	0.10	08/12/22 17:49	
EPA 300.0 Rev 2.1 1993	Sulfate	86.9	mg/L	1.0	08/12/22 17:49	
92618829003	**HGWA-3**					
	Performed by	CUSTOMER			08/05/22 12:45	
	pH	7.02	Std. Units		08/05/22 12:45	
EPA 6010D	Iron	1.0	mg/L	0.040	08/11/22 15:35	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618829003	**HGWA-3**					
EPA 6010D	Manganese	0.24	mg/L	0.040	08/11/22 15:35	
EPA 6010D	Potassium	0.37	mg/L	0.20	08/11/22 15:35	
EPA 6010D	Sodium	5.7	mg/L	1.0	08/11/22 15:35	
EPA 6010D	Calcium	84.6	mg/L	1.0	08/11/22 15:35	
EPA 6010D	Magnesium	5.2	mg/L	0.050	08/11/22 15:35	
EPA 6020B	Barium	0.16	mg/L	0.0050	08/10/22 20:21	
EPA 6020B	Lithium	0.0030J	mg/L	0.030	08/10/22 20:21	
SM 2540C-2015	Total Dissolved Solids	287	mg/L	10.0	08/09/22 10:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	179	mg/L	5.0	08/10/22 12:16	
SM 2320B-2011	Alkalinity, Total as CaCO3	179	mg/L	5.0	08/10/22 12:16	
EPA 300.0 Rev 2.1 1993	Chloride	5.9	mg/L	1.0	08/12/22 18:35	
EPA 300.0 Rev 2.1 1993	Fluoride	0.067J	mg/L	0.10	08/12/22 18:35	
EPA 300.0 Rev 2.1 1993	Sulfate	43.5	mg/L	1.0	08/12/22 18:35	
92618829004	**HGWA-43D**					
	Performed by	CUSTOMER			08/05/22 12:45	
	pH	7.15	Std. Units		08/05/22 12:45	
EPA 6010D	Iron	0.31	mg/L	0.040	08/11/22 15:40	
EPA 6010D	Manganese	0.019J	mg/L	0.040	08/11/22 15:40	
EPA 6010D	Potassium	0.80	mg/L	0.20	08/11/22 15:40	
EPA 6010D	Sodium	24.8	mg/L	1.0	08/11/22 15:40	
EPA 6010D	Calcium	54.1	mg/L	1.0	08/11/22 15:40	
EPA 6010D	Magnesium	17.2	mg/L	0.050	08/11/22 15:40	
EPA 6020B	Barium	0.35	mg/L	0.0050	08/10/22 20:27	
EPA 6020B	Boron	0.043	mg/L	0.040	08/10/22 20:27	
EPA 6020B	Lithium	0.0019J	mg/L	0.030	08/10/22 20:27	
EPA 6020B	Molybdenum	0.0042J	mg/L	0.010	08/10/22 20:27	
SM 2540C-2015	Total Dissolved Solids	278	mg/L	10.0	08/09/22 10:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	203	mg/L	5.0	08/10/22 13:13	
SM 2320B-2011	Alkalinity, Total as CaCO3	203	mg/L	5.0	08/10/22 13:13	
EPA 300.0 Rev 2.1 1993	Chloride	4.3	mg/L	1.0	08/12/22 18:50	
EPA 300.0 Rev 2.1 1993	Fluoride	0.22	mg/L	0.10	08/12/22 18:50	
EPA 300.0 Rev 2.1 1993	Sulfate	37.0	mg/L	1.0	08/12/22 18:50	
92618829005	**HGWA-44D**					
	Performed by	CUSTOMER			08/05/22 12:45	
	pH	7.90	Std. Units		08/05/22 12:45	
EPA 6010D	Iron	0.24	mg/L	0.040	08/11/22 15:45	
EPA 6010D	Manganese	0.013J	mg/L	0.040	08/11/22 15:45	
EPA 6010D	Potassium	3.9	mg/L	0.20	08/11/22 15:45	
EPA 6010D	Sodium	94.6	mg/L	1.0	08/11/22 15:45	
EPA 6010D	Calcium	20.9	mg/L	1.0	08/11/22 15:45	
EPA 6010D	Magnesium	12.2	mg/L	0.050	08/11/22 15:45	
EPA 6020B	Barium	0.37	mg/L	0.0050	08/10/22 20:33	
EPA 6020B	Boron	0.31	mg/L	0.040	08/10/22 20:33	
EPA 6020B	Lithium	0.041	mg/L	0.030	08/10/22 20:33	
EPA 6020B	Molybdenum	0.0020J	mg/L	0.010	08/10/22 20:33	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618829005	**HGWA-44D**					
SM 2540C-2015	Total Dissolved Solids	311	mg/L	10.0	08/09/22 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	263	mg/L	5.0	08/10/22 13:21	
SM 2320B-2011	Alkalinity, Total as CaCO3	263	mg/L	5.0	08/10/22 13:21	M1
SM 4500-S2D-2011	Sulfide	0.058J	mg/L	0.10	08/06/22 03:44	
EPA 300.0 Rev 2.1 1993	Chloride	19.8	mg/L	1.0	08/17/22 03:36	
EPA 300.0 Rev 2.1 1993	Fluoride	0.80	mg/L	0.10	08/17/22 03:36	
EPA 300.0 Rev 2.1 1993	Sulfate	13.2	mg/L	1.0	08/17/22 03:36	

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ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-1 **Lab ID: 92618829001** Collected: 08/02/22 09:44 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/05/22 12:45		
pH	**7.03**	Std. Units			1		08/05/22 12:45		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.21**	mg/L	0.040	0.025	1	08/11/22 10:02	08/11/22 15:26	7439-89-6	
Manganese	**0.48**	mg/L	0.040	0.0043	1	08/11/22 10:02	08/11/22 15:26	7439-96-5	
Potassium	**0.28**	mg/L	0.20	0.15	1	08/11/22 10:02	08/11/22 15:26	7440-09-7	
Sodium	**28.5**	mg/L	1.0	0.58	1	08/11/22 10:02	08/11/22 15:26	7440-23-5	
Calcium	**117**	mg/L	1.0	0.12	1	08/11/22 10:02	08/11/22 15:26	7440-70-2	
Magnesium	**4.4**	mg/L	0.050	0.012	1	08/11/22 10:02	08/11/22 15:26	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/09/22 14:37	08/10/22 20:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/09/22 14:37	08/10/22 20:09	7440-38-2	
Barium	**0.039**	mg/L	0.0050	0.00067	1	08/09/22 14:37	08/10/22 20:09	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/09/22 14:37	08/10/22 20:09	7440-41-7	
Boron	**0.012J**	mg/L	0.040	0.0086	1	08/09/22 14:37	08/10/22 20:09	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/09/22 14:37	08/10/22 20:09	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/09/22 14:37	08/10/22 20:09	7440-47-3	
Cobalt	**0.00054J**	mg/L	0.0050	0.00039	1	08/09/22 14:37	08/10/22 20:09	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/09/22 14:37	08/10/22 20:09	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/09/22 14:37	08/10/22 20:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/09/22 14:37	08/10/22 20:09	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/09/22 14:37	08/10/22 20:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/09/22 14:37	08/10/22 20:09	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/10/22 15:15	08/11/22 11:40	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**400**	mg/L	10.0	10.0	1		08/09/22 10:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**266**	mg/L	5.0	5.0	1		08/10/22 13:04		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/10/22 13:04		
Alkalinity, Total as CaCO3	**266**	mg/L	5.0	5.0	1		08/10/22 13:04		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-1 **Lab ID: 92618829001** Collected: 08/02/22 09:44 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.062J**	mg/L	0.10	0.050	1		08/06/22 03:40	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**14.1**	mg/L	1.0	0.60	1		08/12/22 17:33	16887-00-6	
Fluoride	**0.090J**	mg/L	0.10	0.050	1		08/12/22 17:33	16984-48-8	
Sulfate	**58.1**	mg/L	1.0	0.50	1		08/12/22 17:33	14808-79-8	

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ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-2 **Lab ID: 92618829002** Collected: 08/02/22 12:28 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/05/22 12:45		
pH	**4.57**	Std. Units			1		08/05/22 12:45		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.72**	mg/L	0.040	0.025	1	08/11/22 10:02	08/11/22 15:31	7439-89-6	
Manganese	**0.80**	mg/L	0.040	0.0043	1	08/11/22 10:02	08/11/22 15:31	7439-96-5	
Potassium	**1.0**	mg/L	0.20	0.15	1	08/11/22 10:02	08/11/22 15:31	7440-09-7	
Sodium	**11.2**	mg/L	1.0	0.58	1	08/11/22 10:02	08/11/22 15:31	7440-23-5	
Calcium	**31.2**	mg/L	1.0	0.12	1	08/11/22 10:02	08/11/22 15:31	7440-70-2	
Magnesium	**4.0**	mg/L	0.050	0.012	1	08/11/22 10:02	08/11/22 15:31	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/09/22 14:37	08/10/22 20:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/09/22 14:37	08/10/22 20:15	7440-38-2	
Barium	**0.11**	mg/L	0.0050	0.00067	1	08/09/22 14:37	08/10/22 20:15	7440-39-3	
Beryllium	**0.00019J**	mg/L	0.00050	0.000054	1	08/09/22 14:37	08/10/22 20:15	7440-41-7	
Boron	**0.047**	mg/L	0.040	0.0086	1	08/09/22 14:37	08/10/22 20:15	7440-42-8	
Cadmium	**0.00023J**	mg/L	0.00050	0.00011	1	08/09/22 14:37	08/10/22 20:15	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/09/22 14:37	08/10/22 20:15	7440-47-3	
Cobalt	**0.024**	mg/L	0.0050	0.00039	1	08/09/22 14:37	08/10/22 20:15	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/09/22 14:37	08/10/22 20:15	7439-92-1	
Lithium	**0.0013J**	mg/L	0.030	0.00073	1	08/09/22 14:37	08/10/22 20:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/09/22 14:37	08/10/22 20:15	7439-98-7	
Selenium	**0.0014J**	mg/L	0.0050	0.0014	1	08/09/22 14:37	08/10/22 20:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/09/22 14:37	08/10/22 20:15	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/10/22 15:15	08/11/22 11:43	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**196**	mg/L	10.0	10.0	1		08/09/22 10:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**12.8**	mg/L	5.0	5.0	1		08/10/22 11:59		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/10/22 11:59		
Alkalinity, Total as CaCO3	**12.8**	mg/L	5.0	5.0	1		08/10/22 11:59		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-2 **Lab ID: 92618829002** Collected: 08/02/22 12:28 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/06/22 03:41	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**7.8**	mg/L	1.0	0.60	1		08/12/22 17:49	16887-00-6	
Fluoride	**0.053J**	mg/L	0.10	0.050	1		08/12/22 17:49	16984-48-8	
Sulfate	**86.9**	mg/L	1.0	0.50	1		08/12/22 17:49	14808-79-8	

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

ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-3 **Lab ID: 92618829003** Collected: 08/02/22 14:08 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/05/22 12:45		
pH	**7.02**	Std. Units			1		08/05/22 12:45		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**1.0**	mg/L	0.040	0.025	1	08/11/22 10:02	08/11/22 15:35	7439-89-6	
Manganese	**0.24**	mg/L	0.040	0.0043	1	08/11/22 10:02	08/11/22 15:35	7439-96-5	
Potassium	**0.37**	mg/L	0.20	0.15	1	08/11/22 10:02	08/11/22 15:35	7440-09-7	
Sodium	**5.7**	mg/L	1.0	0.58	1	08/11/22 10:02	08/11/22 15:35	7440-23-5	
Calcium	**84.6**	mg/L	1.0	0.12	1	08/11/22 10:02	08/11/22 15:35	7440-70-2	
Magnesium	**5.2**	mg/L	0.050	0.012	1	08/11/22 10:02	08/11/22 15:35	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/09/22 14:37	08/10/22 20:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/09/22 14:37	08/10/22 20:21	7440-38-2	
Barium	**0.16**	mg/L	0.0050	0.00067	1	08/09/22 14:37	08/10/22 20:21	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/09/22 14:37	08/10/22 20:21	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/09/22 14:37	08/10/22 20:21	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/09/22 14:37	08/10/22 20:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/09/22 14:37	08/10/22 20:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/09/22 14:37	08/10/22 20:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/09/22 14:37	08/10/22 20:21	7439-92-1	
Lithium	**0.0030J**	mg/L	0.030	0.00073	1	08/09/22 14:37	08/10/22 20:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/09/22 14:37	08/10/22 20:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/09/22 14:37	08/10/22 20:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/09/22 14:37	08/10/22 20:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/10/22 15:15	08/11/22 11:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**287**	mg/L	10.0	10.0	1		08/09/22 10:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**179**	mg/L	5.0	5.0	1		08/10/22 12:16		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/10/22 12:16		
Alkalinity, Total as CaCO3	**179**	mg/L	5.0	5.0	1		08/10/22 12:16		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-3 **Lab ID: 92618829003** Collected: 08/02/22 14:08 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/06/22 03:41	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.9**	mg/L	1.0	0.60	1		08/12/22 18:35	16887-00-6	
Fluoride	**0.067J**	mg/L	0.10	0.050	1		08/12/22 18:35	16984-48-8	
Sulfate	**43.5**	mg/L	1.0	0.50	1		08/12/22 18:35	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-43D **Lab ID: 92618829004** Collected: 08/02/22 09:33 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/05/22 12:45		
pH	**7.15**	Std. Units			1		08/05/22 12:45		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.31**	mg/L	0.040	0.025	1	08/11/22 10:02	08/11/22 15:40	7439-89-6	
Manganese	**0.019J**	mg/L	0.040	0.0043	1	08/11/22 10:02	08/11/22 15:40	7439-96-5	
Potassium	**0.80**	mg/L	0.20	0.15	1	08/11/22 10:02	08/11/22 15:40	7440-09-7	
Sodium	**24.8**	mg/L	1.0	0.58	1	08/11/22 10:02	08/11/22 15:40	7440-23-5	
Calcium	**54.1**	mg/L	1.0	0.12	1	08/11/22 10:02	08/11/22 15:40	7440-70-2	
Magnesium	**17.2**	mg/L	0.050	0.012	1	08/11/22 10:02	08/11/22 15:40	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/09/22 14:37	08/10/22 20:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/09/22 14:37	08/10/22 20:27	7440-38-2	
Barium	**0.35**	mg/L	0.0050	0.00067	1	08/09/22 14:37	08/10/22 20:27	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/09/22 14:37	08/10/22 20:27	7440-41-7	
Boron	**0.043**	mg/L	0.040	0.0086	1	08/09/22 14:37	08/10/22 20:27	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/09/22 14:37	08/10/22 20:27	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/09/22 14:37	08/10/22 20:27	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/09/22 14:37	08/10/22 20:27	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/09/22 14:37	08/10/22 20:27	7439-92-1	
Lithium	**0.0019J**	mg/L	0.030	0.00073	1	08/09/22 14:37	08/10/22 20:27	7439-93-2	
Molybdenum	**0.0042J**	mg/L	0.010	0.00074	1	08/09/22 14:37	08/10/22 20:27	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/09/22 14:37	08/10/22 20:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/09/22 14:37	08/10/22 20:27	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/10/22 15:15	08/11/22 11:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**278**	mg/L	10.0	10.0	1		08/09/22 10:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**203**	mg/L	5.0	5.0	1		08/10/22 13:13		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/10/22 13:13		
Alkalinity, Total as CaCO3	**203**	mg/L	5.0	5.0	1		08/10/22 13:13		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-43D **Lab ID: 92618829004** Collected: 08/02/22 09:33 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/06/22 03:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.3**	mg/L	1.0	0.60	1		08/12/22 18:50	16887-00-6	
Fluoride	**0.22**	mg/L	0.10	0.050	1		08/12/22 18:50	16984-48-8	
Sulfate	**37.0**	mg/L	1.0	0.50	1		08/12/22 18:50	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-44D **Lab ID: 92618829005** Collected: 08/02/22 10:42 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		08/05/22 12:45		
pH	**7.90**	Std. Units			1		08/05/22 12:45		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.24**	mg/L	0.040	0.025	1	08/11/22 10:02	08/11/22 15:45	7439-89-6	
Manganese	**0.013J**	mg/L	0.040	0.0043	1	08/11/22 10:02	08/11/22 15:45	7439-96-5	
Potassium	**3.9**	mg/L	0.20	0.15	1	08/11/22 10:02	08/11/22 15:45	7440-09-7	
Sodium	**94.6**	mg/L	1.0	0.58	1	08/11/22 10:02	08/11/22 15:45	7440-23-5	
Calcium	**20.9**	mg/L	1.0	0.12	1	08/11/22 10:02	08/11/22 15:45	7440-70-2	
Magnesium	**12.2**	mg/L	0.050	0.012	1	08/11/22 10:02	08/11/22 15:45	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/09/22 14:37	08/10/22 20:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/09/22 14:37	08/10/22 20:33	7440-38-2	
Barium	**0.37**	mg/L	0.0050	0.00067	1	08/09/22 14:37	08/10/22 20:33	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/09/22 14:37	08/10/22 20:33	7440-41-7	
Boron	**0.31**	mg/L	0.040	0.0086	1	08/09/22 14:37	08/10/22 20:33	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/09/22 14:37	08/10/22 20:33	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/09/22 14:37	08/10/22 20:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/09/22 14:37	08/10/22 20:33	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/09/22 14:37	08/10/22 20:33	7439-92-1	
Lithium	**0.041**	mg/L	0.030	0.00073	1	08/09/22 14:37	08/10/22 20:33	7439-93-2	
Molybdenum	**0.0020J**	mg/L	0.010	0.00074	1	08/09/22 14:37	08/10/22 20:33	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/09/22 14:37	08/10/22 20:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/09/22 14:37	08/10/22 20:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/10/22 15:15	08/11/22 11:51	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**311**	mg/L	10.0	10.0	1		08/09/22 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**263**	mg/L	5.0	5.0	1		08/10/22 13:21		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/10/22 13:21		
Alkalinity, Total as CaCO3	**263**	mg/L	5.0	5.0	1		08/10/22 13:21		M1

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Sample: HGWA-44D **Lab ID: 92618829005** Collected: 08/02/22 10:42 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.058J**	mg/L	0.10	0.050	1		08/06/22 03:44	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**19.8**	mg/L	1.0	0.60	1		08/17/22 03:36	16887-00-6	
Fluoride	**0.80**	mg/L	0.10	0.050	1		08/17/22 03:36	16984-48-8	
Sulfate	**13.2**	mg/L	1.0	0.50	1		08/17/22 03:36	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 716032
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

METHOD BLANK: 3732776 Matrix: Water
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	08/11/22 13:20	
Iron	mg/L	ND	0.040	0.025	08/11/22 13:20	
Magnesium	mg/L	ND	0.050	0.012	08/11/22 13:20	
Manganese	mg/L	ND	0.040	0.0043	08/11/22 13:20	
Potassium	mg/L	ND	0.20	0.15	08/11/22 13:20	
Sodium	mg/L	ND	1.0	0.58	08/11/22 13:20	

LABORATORY CONTROL SAMPLE: 3732777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	
Iron	mg/L	1	1.0	104	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Manganese	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	1.1	109	80-120	
Sodium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732778 3732779

Parameter	Units	92618820002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	153	1	1	150	153	-362	-50	75-125	2	20	M1
Iron	mg/L	0.053	1	1	1.1	1.1	107	108	75-125	1	20	
Magnesium	mg/L	21.3	1	1	21.8	22.2	57	96	75-125	2	20	M1
Manganese	mg/L	0.31	1	1	1.4	1.4	105	106	75-125	1	20	
Potassium	mg/L	7.7	1	1	8.6	8.8	92	109	75-125	2	20	
Sodium	mg/L	9.4	1	1	10.2	10.4	79	96	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 715918
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

METHOD BLANK: 3732042 Matrix: Water
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	08/10/22 17:46	
Arsenic	mg/L	ND	0.0050	0.0022	08/10/22 17:46	
Barium	mg/L	ND	0.0050	0.00067	08/10/22 17:46	
Beryllium	mg/L	ND	0.00050	0.000054	08/10/22 17:46	
Boron	mg/L	ND	0.040	0.0086	08/10/22 17:46	
Cadmium	mg/L	ND	0.00050	0.00011	08/10/22 17:46	
Chromium	mg/L	ND	0.0050	0.0011	08/10/22 17:46	
Cobalt	mg/L	ND	0.0050	0.00039	08/10/22 17:46	
Lead	mg/L	ND	0.0010	0.00089	08/10/22 17:46	
Lithium	mg/L	ND	0.030	0.00073	08/10/22 17:46	
Molybdenum	mg/L	ND	0.010	0.00074	08/10/22 17:46	
Selenium	mg/L	ND	0.0050	0.0014	08/10/22 17:46	
Thallium	mg/L	ND	0.0010	0.00018	08/10/22 17:46	

LABORATORY CONTROL SAMPLE: 3732043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	120	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	0.10	100	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	0.1	0.10	104	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.11	105	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732044 3732045

Parameter	Units	92618820002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.12	0.13	123	128	75-125	4	20	M1
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732044 3732045

Parameter	Units	92618820002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.060	0.1	0.1	0.18	0.19	120	126	75-125	3	20	M1
Beryllium	mg/L	0.000056J	0.1	0.1	0.089	0.087	89	87	75-125	2	20	
Boron	mg/L	1.5	1	1	2.3	2.3	80	82	75-125	1	20	
Cadmium	mg/L	0.00017J	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Chromium	mg/L	ND	0.1	0.1	0.098	0.097	97	97	75-125	1	20	
Cobalt	mg/L	0.0024J	0.1	0.1	0.097	0.098	95	95	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.097	96	97	75-125	1	20	
Lithium	mg/L	0.0026J	0.1	0.1	0.090	0.090	88	87	75-125	0	20	
Molybdenum	mg/L	0.29	0.1	0.1	0.41	0.43	116	138	75-125	5	20	M1
Selenium	mg/L	ND	0.1	0.1	0.10	0.099	99	98	75-125	0	20	
Thallium	mg/L	0.00018J	0.1	0.1	0.097	0.097	97	97	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 716247
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

METHOD BLANK: 3733695 Matrix: Water
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	08/11/22 10:22	

LABORATORY CONTROL SAMPLE: 3733696

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0021	86	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3733697 3733698

Parameter	Units	92618820001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0021	0.0020	82	82	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 715874 | 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: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

METHOD BLANK: 3731839 Matrix: Water
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/09/22 10:22	

LABORATORY CONTROL SAMPLE: 3731840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	390	98	80-120	

SAMPLE DUPLICATE: 3731841

Parameter	Units	92618822001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	48.0	47.0	2	25	

SAMPLE DUPLICATE: 3731990

Parameter	Units	92618829005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	311	341	9	25	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 716212
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

METHOD BLANK: 3733541 Matrix: Water
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004, 92618829005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	08/10/22 10:57	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	08/10/22 10:57	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	08/10/22 10:57	

LABORATORY CONTROL SAMPLE: 3733542

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.1	96	80-120	

LABORATORY CONTROL SAMPLE: 3733543

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	48.5	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3733544 3733545

Parameter	Units	92618829005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	263	50	50	299	296	73	67	80-120	1	25	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 715461
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618829001, 92618829002, 92618829003

METHOD BLANK: 3730179 Matrix: Water
Associated Lab Samples: 92618829001, 92618829002, 92618829003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	08/06/22 03:29	

LABORATORY CONTROL SAMPLE: 3730180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3730181 3730182

Parameter	Units	92618725005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.48	86	94	80-120	8	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3730183 3730184

Parameter	Units	92618728001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.53	104	105	80-120	1	10	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 715462
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618829004, 92618829005

METHOD BLANK: 3730185 Matrix: Water
Associated Lab Samples: 92618829004, 92618829005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	08/06/22 03:43	

LABORATORY CONTROL SAMPLE: 3730186

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3730187 3730188

Parameter	Units	92618494001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.52	0.55	101	108	80-120	6	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3730189 3730190

Parameter	Units	92618607002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.49	0.49	92	92	80-120	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 716707
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004

METHOD BLANK: 3736371 Matrix: Water
Associated Lab Samples: 92618829001, 92618829002, 92618829003, 92618829004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/12/22 10:25	
Fluoride	mg/L	ND	0.10	0.050	08/12/22 10:25	
Sulfate	mg/L	ND	1.0	0.50	08/12/22 10:25	

LABORATORY CONTROL SAMPLE: 3736372

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.1	106	90-110	
Fluoride	mg/L	2.5	2.6	106	90-110	
Sulfate	mg/L	50	51.7	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3736373 3736374

Parameter	Units	92618820001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	37.9	50	50	94.8	94.7	114	114	90-110	0	10	M1
Fluoride	mg/L	0.11	2.5	2.5	2.8	2.8	107	109	90-110	1	10	
Sulfate	mg/L	105	50	50	152	150	94	90	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3736375 3736376

Parameter	Units	92618820011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	63.5	50	50	101	100	74	74	90-110	0	10	M1
Fluoride	mg/L	0.069J	2.5	2.5	2.8	2.7	108	106	90-110	2	10	
Sulfate	mg/L	140	50	50	186	187	92	93	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

QC Batch: 717487
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618829005

METHOD BLANK: 3740162 Matrix: Water
Associated Lab Samples: 92618829005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/16/22 23:47	
Fluoride	mg/L	ND	0.10	0.050	08/16/22 23:47	
Sulfate	mg/L	ND	1.0	0.50	08/16/22 23:47	

LABORATORY CONTROL SAMPLE: 3740163

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.5	99	90-110	
Fluoride	mg/L	2.5	2.6	106	90-110	
Sulfate	mg/L	50	49.8	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3740164 3740165

Parameter	Units	92619836001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	10.2	50	50	65.3	63.6	110	107	90-110	3	10	
Fluoride	mg/L	0.80	2.5	2.5	3.4	3.2	105	98	90-110	5	10	
Sulfate	mg/L	11.0	50	50	67.7	64.3	113	107	90-110	5	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3740166 3740167

Parameter	Units	92619486001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	61.1	50	50	108	109	93	95	90-110	1	10	
Fluoride	mg/L	0.35	2.5	2.5	2.8	2.9	99	100	90-110	1	10	
Sulfate	mg/L	367	50	50	352	349	-32	-37	90-110	1	10	M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

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

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

Pace Analytical Services, LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND POOLED UPGRADIENT
Pace Project No.: 92618829

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92618829001	**HGWA-1**				
92618829002	**HGWA-2**				
92618829003	**HGWA-3**				
92618829004	**HGWA-43D**				
92618829005	**HGWA-44D**				
92618829001	**HGWA-1**	EPA 3010A	716032	EPA 6010D	716586
92618829002	**HGWA-2**	EPA 3010A	716032	EPA 6010D	716586
92618829003	**HGWA-3**	EPA 3010A	716032	EPA 6010D	716586
92618829004	**HGWA-43D**	EPA 3010A	716032	EPA 6010D	716586
92618829005	**HGWA-44D**	EPA 3010A	716032	EPA 6010D	716586
92618829001	**HGWA-1**	EPA 3005A	715918	EPA 6020B	716063
92618829002	**HGWA-2**	EPA 3005A	715918	EPA 6020B	716063
92618829003	**HGWA-3**	EPA 3005A	715918	EPA 6020B	716063
92618829004	**HGWA-43D**	EPA 3005A	715918	EPA 6020B	716063
92618829005	**HGWA-44D**	EPA 3005A	715918	EPA 6020B	716063
92618829001	**HGWA-1**	EPA 7470A	716247	EPA 7470A	716490
92618829002	**HGWA-2**	EPA 7470A	716247	EPA 7470A	716490
92618829003	**HGWA-3**	EPA 7470A	716247	EPA 7470A	716490
92618829004	**HGWA-43D**	EPA 7470A	716247	EPA 7470A	716490
92618829005	**HGWA-44D**	EPA 7470A	716247	EPA 7470A	716490
92618829001	**HGWA-1**	SM 2540C-2015	715874		
92618829002	**HGWA-2**	SM 2540C-2015	715874		
92618829003	**HGWA-3**	SM 2540C-2015	715874		
92618829004	**HGWA-43D**	SM 2540C-2015	715874		
92618829005	**HGWA-44D**	SM 2540C-2015	715874		
92618829001	**HGWA-1**	SM 2320B-2011	716212		
92618829002	**HGWA-2**	SM 2320B-2011	716212		
92618829003	**HGWA-3**	SM 2320B-2011	716212		
92618829004	**HGWA-43D**	SM 2320B-2011	716212		
92618829005	**HGWA-44D**	SM 2320B-2011	716212		
92618829001	**HGWA-1**	SM 4500-S2D-2011	715461		
92618829002	**HGWA-2**	SM 4500-S2D-2011	715461		
92618829003	**HGWA-3**	SM 4500-S2D-2011	715461		
92618829004	**HGWA-43D**	SM 4500-S2D-2011	715462		
92618829005	**HGWA-44D**	SM 4500-S2D-2011	715462		
92618829001	**HGWA-1**	EPA 300.0 Rev 2.1 1993	716707		
92618829002	**HGWA-2**	EPA 300.0 Rev 2.1 1993	716707		
92618829003	**HGWA-3**	EPA 300.0 Rev 2.1 1993	716707		
92618829004	**HGWA-43D**	EPA 300.0 Rev 2.1 1993	716707		
92618829005	**HGWA-44D**	EPA 300.0 Rev 2.1 1993	717487		

Pace

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

Effective Date: 05/12/2022

Laboratory receiving samples:

~~Asheville~~ ☐ ~~Eden~~ ☐ ~~Greenwood~~ ☐ ~~Huntersville~~ ☐ ~~Raleigh~~ ☐ ~~Mechanicsville~~ ☐ ~~Atlanta~~ ☑ ~~Kernersville~~ ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #

WO# : 92618829

92618829

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

Custody Seal Present? ☐ Yes ☑ ~~No~~ **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 8/4/22 CDW

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ ~~N/A~~

Thermometer: ☑ ~~IR Gun ID:~~ 230 **Type of Ice:** ☑ ~~Wet~~ ☐ Blue ☐ None

Cooler Temp: 3.3 **Correction Factor: Add/Subtract (°C)** 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ ~~Yes~~ ☐ ~~No~~

Did samples originate from a foreign source (internationally, ~~including Hawaii and Puerto Rico~~)? ☐ ~~Yes~~ ☐ ~~No~~

				Comments/Discrepancy:
Chain of Custody Present?	☑ ~~Yes~~	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ ~~Yes~~	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ ~~No~~	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ ~~No~~	☐ N/A	4.
Sufficient Volume?	☑ ~~Yes~~	☐ No	☐ N/A	5.
Correct Containers Used?	☑ ~~Yes~~	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ ~~Yes~~	☐ No	☐ N/A	
Containers Intact?	☑ ~~Yes~~	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ ~~N/A~~	8.
Sample Labels Match COC?	☑ ~~Yes~~	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ ~~No~~	☐ ~~N/A~~	10.
Trip Blank Present?	☐ Yes	☐ No	☑ ~~N/A~~	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ **Date/Time:** _____

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

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

Pace	DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt
	Effective Date: 05/12/2022

WO# : 92618829

PM: NMG Due Date: 08/18/22

CLIENT: GA-GA Power

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

Project #

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG9A-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9Y-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (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)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																		2				
2		2	1			1	1																		2				
3		2	1			1	1																		2				
4		2	1			1	1																		2				
5		2	1			1	1																		2				
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond Pooled Upgradient
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10639

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App III and IV metals	RAD 226/228	TDS	Major Ions	Alkalinity, Bicarbonate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Requested Analysis Filtered (Y/N)	N	N	N	N	N	N		
1	HGWA-1	WG	G	8/2/2022	09:44	TK 8/2/2022		19	7	3		3					1		X	X	X	X	X	X	N	pH = 7.03
2	HGWA-2	WG	G	8/2/2022	12:28			20	7	3		3					1		X	X	X	X	X	X	N	pH = 4.57
3	HGWA-3	WG	G	8/2/2022	14:08			20	7	3		3					1		X	X	X	X	X	X	N	pH = 7.02
4	HGWA-43D	WG	G	8/2/2022	09:33			18	7	3		3					1		X	X	X	X	X	X	N	pH = 7.15
5	HGWA-44D	WG	G	8/2/2022	10:42			19	7	3		3					1		X	X	X	X	X	X	N	pH = 7.90
6																										
7																										
8																										
9																										
10																										
11																										TK 8/2/2022
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Hassler	8/4/2022	1230	Ryan Williams / Pace	8/4/2022	1230	
	Ryan Williams / Pace	8/4/22	1515	Chandler Hanks	8/4/22	1515	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Hassler, Anthony Stewart, Jordan Ornderff

SIGNATURE of SAMPLER: TH, AS, JO

DATE Signed (MM/DD/YY): 8/2/2022

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

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

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

August 19, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-3
Pace Project No.: 92618823

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between August 04, 2022 and August 05, 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,

Nicole D'Oleo

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

Enclosures

cc: Noelia Gangi, Georgia Power
Ben Hodges, Georgia Power
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Laura Midkiff, Georgia Power
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Michael Smilley, Georgia Power
Anthony Szwast, Geosyntec
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Pace Analytical Services Charlotte
South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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

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

SAMPLE SUMMARY

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92618823001	**HGWA-45D**	Water	08/02/22 12:30	08/04/22 12:30
92618823002	**HGWA-122**	Water	08/02/22 13:57	08/04/22 12:30
92618823003	**HGWC-120**	Water	08/04/22 15:55	08/05/22 14:15
92618823004	**HGWC-121A**	Water	08/04/22 13:16	08/05/22 14:15
92618823005	**HGWC-124**	Water	08/04/22 11:19	08/05/22 14:15
92618823006	**HGWC-125**	Water	08/04/22 15:40	08/05/22 14:15
92618823007	**HGWC-126**	Water	08/04/22 16:46	08/05/22 14:15
92618823008	**DUP-3**	Water	08/04/22 00:00	08/05/22 14:15
92618823009	**EB-3**	Water	08/04/22 17:25	08/05/22 14:15
92618823010	**FB-3**	Water	08/04/22 17:05	08/05/22 14:15

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

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92618823001	**HGWA-45D**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823002	**HGWA-122**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	SMS	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823003	**HGWC-120**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	DMN	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823004	**HGWC-121A**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	DMN	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823005	**HGWC-124**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	DMN	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823006	**HGWC-125**	EPA 6010D	KH	6
		EPA 6020B	CW1	13

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

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	DMN	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823007	**HGWC-126**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	DMN	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823008	**DUP-3**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	KDF1	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823009	**EB-3**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	KDF1	3
		SM 4500-S2D-2011	JP1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92618823010	**FB-3**	EPA 6010D	KH	6
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	BTS	1
		SM 2320B-2011	KDF1	3
		SM 4500-S2D-2011	JP1	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

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618823001	**HGWA-45D**					
	Performed by	Customer			08/05/22 12:39	
	pH	7.39	Std. Units		08/05/22 12:39	
EPA 6010D	Iron	0.26	mg/L	0.040	08/11/22 14:57	
EPA 6010D	Manganese	0.015J	mg/L	0.040	08/11/22 14:57	
EPA 6010D	Potassium	1.8	mg/L	0.20	08/11/22 14:57	
EPA 6010D	Sodium	24.6	mg/L	1.0	08/11/22 14:57	
EPA 6010D	Calcium	49.9	mg/L	1.0	08/11/22 14:57	
EPA 6010D	Magnesium	18.7	mg/L	0.050	08/11/22 14:57	
EPA 6020B	Barium	0.64	mg/L	0.0050	08/10/22 19:33	
EPA 6020B	Boron	0.14	mg/L	0.040	08/10/22 19:33	
EPA 6020B	Lithium	0.0045J	mg/L	0.030	08/10/22 19:33	
SM 2540C-2015	Total Dissolved Solids	261	mg/L	10.0	08/09/22 10:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	238	mg/L	5.0	08/10/22 08:57	
SM 2320B-2011	Alkalinity, Total as CaCO3	238	mg/L	5.0	08/10/22 08:57	
SM 4500-S2D-2011	Sulfide	0.16	mg/L	0.10	08/06/22 03:38	
EPA 300.0 Rev 2.1 1993	Chloride	3.9	mg/L	1.0	08/12/22 16:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.21	mg/L	0.10	08/12/22 16:05	
EPA 300.0 Rev 2.1 1993	Sulfate	2.1	mg/L	1.0	08/12/22 16:05	
92618823002	**HGWA-122**					
	Performed by	Customer			08/05/22 12:40	
	pH	6.67	Std. Units		08/05/22 12:40	
EPA 6010D	Iron	0.81	mg/L	0.040	08/11/22 15:02	
EPA 6010D	Manganese	0.66	mg/L	0.040	08/11/22 15:02	
EPA 6010D	Potassium	1.8	mg/L	0.20	08/11/22 15:02	
EPA 6010D	Sodium	9.5	mg/L	1.0	08/11/22 15:02	
EPA 6010D	Calcium	69.5	mg/L	1.0	08/11/22 15:02	
EPA 6010D	Magnesium	5.2	mg/L	0.050	08/11/22 15:02	
EPA 6020B	Barium	0.038	mg/L	0.0050	08/10/22 19:39	
EPA 6020B	Boron	0.18	mg/L	0.040	08/10/22 19:39	
EPA 6020B	Molybdenum	0.0042J	mg/L	0.010	08/10/22 19:39	
SM 2540C-2015	Total Dissolved Solids	217	mg/L	10.0	08/09/22 10:23	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	155	mg/L	5.0	08/09/22 22:33	
SM 2320B-2011	Alkalinity, Total as CaCO3	155	mg/L	5.0	08/09/22 22:33	
EPA 300.0 Rev 2.1 1993	Chloride	2.7	mg/L	1.0	08/12/22 16:47	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	08/12/22 16:47	
EPA 300.0 Rev 2.1 1993	Sulfate	41.5	mg/L	1.0	08/12/22 16:47	
92618823003	**HGWC-120**					
	Performed by	Customer			08/08/22 10:11	
	pH	6.93	Std. Units		08/08/22 10:11	
EPA 6010D	Iron	0.65	mg/L	0.040	08/11/22 16:04	
EPA 6010D	Manganese	1.4	mg/L	0.040	08/11/22 16:04	
EPA 6010D	Potassium	7.2	mg/L	0.20	08/11/22 16:04	
EPA 6010D	Sodium	8.7	mg/L	1.0	08/11/22 16:04	
EPA 6010D	Calcium	173	mg/L	1.0	08/11/22 16:04	
EPA 6010D	Magnesium	23.3	mg/L	0.050	08/11/22 16:04	
EPA 6020B	Barium	0.048	mg/L	0.0050	08/11/22 16:52	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618823003	**HGWC-120**					
EPA 6020B	Boron	1.0	mg/L	0.040	08/11/22 16:52	
EPA 6020B	Cobalt	0.0058	mg/L	0.0050	08/11/22 16:52	
EPA 6020B	Lithium	0.023J	mg/L	0.030	08/11/22 16:52	
EPA 6020B	Molybdenum	0.032	mg/L	0.010	08/11/22 16:52	
SM 2540C-2015	Total Dissolved Solids	632	mg/L	20.0	08/09/22 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	291	mg/L	5.0	08/17/22 10:53	
SM 2320B-2011	Alkalinity, Total as CaCO3	291	mg/L	5.0	08/17/22 10:53	
EPA 300.0 Rev 2.1 1993	Chloride	2.7	mg/L	1.0	08/17/22 09:14	
EPA 300.0 Rev 2.1 1993	Fluoride	0.38	mg/L	0.10	08/17/22 09:14	
EPA 300.0 Rev 2.1 1993	Sulfate	230	mg/L	5.0	08/18/22 01:23	
92618823004	**HGWC-121A**					
	Performed by	Customer			08/08/22 10:12	
	pH	6.80	Std. Units		08/08/22 10:12	
EPA 6010D	Iron	0.086	mg/L	0.040	08/11/22 16:19	
EPA 6010D	Manganese	0.73	mg/L	0.040	08/11/22 16:19	
EPA 6010D	Potassium	1.1	mg/L	0.20	08/11/22 16:19	
EPA 6010D	Sodium	34.3	mg/L	1.0	08/11/22 16:19	
EPA 6010D	Calcium	160	mg/L	1.0	08/11/22 16:19	
EPA 6010D	Magnesium	23.8	mg/L	0.050	08/11/22 16:19	
EPA 6020B	Antimony	0.0016J	mg/L	0.0030	08/11/22 17:16	
EPA 6020B	Barium	0.060	mg/L	0.0050	08/11/22 17:16	
EPA 6020B	Boron	1.8	mg/L	0.040	08/11/22 17:16	
EPA 6020B	Lithium	0.0069J	mg/L	0.030	08/11/22 17:16	
SM 2540C-2015	Total Dissolved Solids	640	mg/L	20.0	08/09/22 10:27	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	352	mg/L	5.0	08/17/22 11:02	
SM 2320B-2011	Alkalinity, Total as CaCO3	352	mg/L	5.0	08/17/22 11:02	
EPA 300.0 Rev 2.1 1993	Chloride	15.4	mg/L	1.0	08/17/22 09:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.18	mg/L	0.10	08/17/22 09:59	
EPA 300.0 Rev 2.1 1993	Sulfate	162	mg/L	3.0	08/18/22 02:07	
92618823005	**HGWC-124**					
	Performed by	Customer			08/08/22 10:12	
	pH	7.15	Std. Units		08/08/22 10:12	
EPA 6010D	Iron	0.26	mg/L	0.040	08/11/22 16:23	
EPA 6010D	Manganese	0.38	mg/L	0.040	08/11/22 16:23	
EPA 6010D	Potassium	0.83	mg/L	0.20	08/11/22 16:23	
EPA 6010D	Sodium	5.6	mg/L	1.0	08/11/22 16:23	
EPA 6010D	Calcium	103	mg/L	1.0	08/11/22 16:23	
EPA 6010D	Magnesium	9.5	mg/L	0.050	08/11/22 16:23	
EPA 6020B	Barium	0.068	mg/L	0.0050	08/11/22 17:21	
EPA 6020B	Boron	0.36	mg/L	0.040	08/11/22 17:21	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	08/11/22 17:21	
SM 2540C-2015	Total Dissolved Solids	334	mg/L	10.0	08/09/22 10:01	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	239	mg/L	5.0	08/17/22 11:11	
SM 2320B-2011	Alkalinity, Total as CaCO3	239	mg/L	5.0	08/17/22 11:11	
EPA 300.0 Rev 2.1 1993	Chloride	2.6	mg/L	1.0	08/17/22 10:13	
EPA 300.0 Rev 2.1 1993	Fluoride	0.074J	mg/L	0.10	08/17/22 10:13	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618823005	**HGWC-124**					
EPA 300.0 Rev 2.1 1993	Sulfate	73.1	mg/L	1.0	08/17/22 10:13	
92618823006	**HGWC-125**					
	Performed by	Customer			08/08/22 10:13	
	pH	6.09	Std. Units		08/08/22 10:13	
EPA 6010D	Iron	0.10	mg/L	0.040	08/11/22 16:28	
EPA 6010D	Manganese	2.3	mg/L	0.040	08/11/22 16:28	
EPA 6010D	Potassium	3.4	mg/L	0.20	08/11/22 16:28	
EPA 6010D	Sodium	16.2	mg/L	1.0	08/11/22 16:28	M1
EPA 6010D	Calcium	170	mg/L	1.0	08/11/22 16:28	M1
EPA 6010D	Magnesium	27.3	mg/L	0.050	08/11/22 16:28	M1
EPA 6020B	Barium	0.037	mg/L	0.0050	08/11/22 17:27	
EPA 6020B	Boron	1.4	mg/L	0.040	08/11/22 17:27	
EPA 6020B	Cobalt	0.014	mg/L	0.0050	08/11/22 17:27	
EPA 6020B	Lithium	0.0035J	mg/L	0.030	08/11/22 17:27	
EPA 6020B	Molybdenum	0.0023J	mg/L	0.010	08/11/22 17:27	
SM 2540C-2015	Total Dissolved Solids	706	mg/L	20.0	08/09/22 10:02	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	189	mg/L	5.0	08/17/22 03:32	
SM 2320B-2011	Alkalinity, Total as CaCO3	189	mg/L	5.0	08/17/22 03:32	
EPA 300.0 Rev 2.1 1993	Chloride	11.6	mg/L	1.0	08/17/22 10:28	
EPA 300.0 Rev 2.1 1993	Fluoride	0.15	mg/L	0.10	08/17/22 10:28	
EPA 300.0 Rev 2.1 1993	Sulfate	331	mg/L	7.0	08/18/22 02:22	
92618823007	**HGWC-126**					
	Performed by	Customer			08/08/22 10:13	
	pH	6.99	Std. Units		08/08/22 10:13	
EPA 6010D	Iron	1.5	mg/L	0.040	08/11/22 16:47	
EPA 6010D	Manganese	0.19	mg/L	0.040	08/11/22 16:47	
EPA 6010D	Potassium	0.78	mg/L	0.20	08/11/22 16:47	
EPA 6010D	Sodium	31.3	mg/L	1.0	08/11/22 16:47	
EPA 6010D	Calcium	141	mg/L	1.0	08/11/22 16:47	
EPA 6010D	Magnesium	26.5	mg/L	0.050	08/11/22 16:47	
EPA 6020B	Barium	0.24	mg/L	0.0050	08/11/22 17:33	
EPA 6020B	Boron	0.023J	mg/L	0.040	08/11/22 17:33	
EPA 6020B	Lithium	0.0034J	mg/L	0.030	08/11/22 17:33	
SM 2540C-2015	Total Dissolved Solids	510	mg/L	20.0	08/09/22 10:02	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	434	mg/L	5.0	08/17/22 11:19	
SM 2320B-2011	Alkalinity, Total as CaCO3	434	mg/L	5.0	08/17/22 11:19	
EPA 300.0 Rev 2.1 1993	Chloride	8.7	mg/L	1.0	08/17/22 10:43	
EPA 300.0 Rev 2.1 1993	Fluoride	0.50	mg/L	0.10	08/17/22 10:43	
EPA 300.0 Rev 2.1 1993	Sulfate	68.3	mg/L	1.0	08/17/22 10:43	
92618823008	**DUP-3**					
EPA 6010D	Iron	0.058	mg/L	0.040	08/11/22 16:52	
EPA 6010D	Manganese	0.74	mg/L	0.040	08/11/22 16:52	
EPA 6010D	Potassium	1.1	mg/L	0.20	08/11/22 16:52	
EPA 6010D	Sodium	34.8	mg/L	1.0	08/11/22 16:52	
EPA 6010D	Calcium	162	mg/L	1.0	08/11/22 16:52	
EPA 6010D	Magnesium	23.9	mg/L	0.050	08/11/22 16:52	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618823008	**DUP-3**					
EPA 6020B	Barium	0.059	mg/L	0.0050	08/11/22 17:55	
EPA 6020B	Boron	1.8	mg/L	0.040	08/11/22 17:55	
EPA 6020B	Lithium	0.0069J	mg/L	0.030	08/11/22 17:55	
SM 2540C-2015	Total Dissolved Solids	628	mg/L	20.0	08/09/22 10:02	
SM 2320B-2011	Alkalinity,Bicarbonate (CaCO3)	366	mg/L	5.0	08/17/22 19:54	
SM 2320B-2011	Alkalinity, Total as CaCO3	366	mg/L	5.0	08/17/22 19:54	
EPA 300.0 Rev 2.1 1993	Chloride	15.3	mg/L	1.0	08/17/22 10:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.18	mg/L	0.10	08/17/22 10:58	
EPA 300.0 Rev 2.1 1993	Sulfate	164	mg/L	3.0	08/18/22 02:37	
92618823009	**EB-3**					
EPA 6020B	Boron	0.012J	mg/L	0.040	08/11/22 18:01	

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ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWA-45D **Lab ID: 92618823001** Collected: 08/02/22 12:30 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		08/05/22 12:39		
pH	**7.39**	Std. Units			1		08/05/22 12:39		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.26**	mg/L	0.040	0.025	1	08/11/22 10:02	08/11/22 14:57	7439-89-6	
Manganese	**0.015J**	mg/L	0.040	0.0043	1	08/11/22 10:02	08/11/22 14:57	7439-96-5	
Potassium	**1.8**	mg/L	0.20	0.15	1	08/11/22 10:02	08/11/22 14:57	7440-09-7	
Sodium	**24.6**	mg/L	1.0	0.58	1	08/11/22 10:02	08/11/22 14:57	7440-23-5	
Calcium	**49.9**	mg/L	1.0	0.12	1	08/11/22 10:02	08/11/22 14:57	7440-70-2	
Magnesium	**18.7**	mg/L	0.050	0.012	1	08/11/22 10:02	08/11/22 14:57	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/09/22 14:37	08/10/22 19:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/09/22 14:37	08/10/22 19:33	7440-38-2	
Barium	**0.64**	mg/L	0.0050	0.00067	1	08/09/22 14:37	08/10/22 19:33	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/09/22 14:37	08/10/22 19:33	7440-41-7	
Boron	**0.14**	mg/L	0.040	0.0086	1	08/09/22 14:37	08/10/22 19:33	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/09/22 14:37	08/10/22 19:33	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/09/22 14:37	08/10/22 19:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/09/22 14:37	08/10/22 19:33	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/09/22 14:37	08/10/22 19:33	7439-92-1	
Lithium	**0.0045J**	mg/L	0.030	0.00073	1	08/09/22 14:37	08/10/22 19:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/09/22 14:37	08/10/22 19:33	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/09/22 14:37	08/10/22 19:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/09/22 14:37	08/10/22 19:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:23	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**261**	mg/L	10.0	10.0	1		08/09/22 10:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**238**	mg/L	5.0	5.0	1		08/10/22 08:57		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/10/22 08:57		
Alkalinity, Total as CaCO3	**238**	mg/L	5.0	5.0	1		08/10/22 08:57		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWA-45D **Lab ID: 92618823001** Collected: 08/02/22 12:30 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	**0.16**	mg/L	0.10	0.050	1		08/06/22 03:38	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.9**	mg/L	1.0	0.60	1		08/12/22 16:05	16887-00-6	
Fluoride	**0.21**	mg/L	0.10	0.050	1		08/12/22 16:05	16984-48-8	
Sulfate	**2.1**	mg/L	1.0	0.50	1		08/12/22 16:05	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWA-122 **Lab ID: 92618823002** Collected: 08/02/22 13:57 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		08/05/22 12:40		
pH	**6.67**	Std. Units			1		08/05/22 12:40		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.81**	mg/L	0.040	0.025	1	08/11/22 10:02	08/11/22 15:02	7439-89-6	
Manganese	**0.66**	mg/L	0.040	0.0043	1	08/11/22 10:02	08/11/22 15:02	7439-96-5	
Potassium	**1.8**	mg/L	0.20	0.15	1	08/11/22 10:02	08/11/22 15:02	7440-09-7	
Sodium	**9.5**	mg/L	1.0	0.58	1	08/11/22 10:02	08/11/22 15:02	7440-23-5	
Calcium	**69.5**	mg/L	1.0	0.12	1	08/11/22 10:02	08/11/22 15:02	7440-70-2	
Magnesium	**5.2**	mg/L	0.050	0.012	1	08/11/22 10:02	08/11/22 15:02	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/09/22 14:37	08/10/22 19:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/09/22 14:37	08/10/22 19:39	7440-38-2	
Barium	**0.038**	mg/L	0.0050	0.00067	1	08/09/22 14:37	08/10/22 19:39	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/09/22 14:37	08/10/22 19:39	7440-41-7	
Boron	**0.18**	mg/L	0.040	0.0086	1	08/09/22 14:37	08/10/22 19:39	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/09/22 14:37	08/10/22 19:39	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/09/22 14:37	08/10/22 19:39	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/09/22 14:37	08/10/22 19:39	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/09/22 14:37	08/10/22 19:39	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/09/22 14:37	08/10/22 19:39	7439-93-2	
Molybdenum	**0.0042J**	mg/L	0.010	0.00074	1	08/09/22 14:37	08/10/22 19:39	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/09/22 14:37	08/10/22 19:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/09/22 14:37	08/10/22 19:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:31	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**217**	mg/L	10.0	10.0	1		08/09/22 10:23		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**155**	mg/L	5.0	5.0	1		08/09/22 22:33		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/09/22 22:33		
Alkalinity, Total as CaCO3	**155**	mg/L	5.0	5.0	1		08/09/22 22:33		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWA-122 **Lab ID: 92618823002** Collected: 08/02/22 13:57 Received: 08/04/22 12:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/06/22 03:39	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.7**	mg/L	1.0	0.60	1		08/12/22 16:47	16887-00-6	
Fluoride	**0.10**	mg/L	0.10	0.050	1		08/12/22 16:47	16984-48-8	
Sulfate	**41.5**	mg/L	1.0	0.50	1		08/12/22 16:47	14808-79-8	

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ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-120 **Lab ID: 92618823003** Collected: 08/04/22 15:55 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		08/08/22 10:11		
pH	**6.93**	Std. Units			1		08/08/22 10:11		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.65**	mg/L	0.040	0.025	1	08/11/22 09:30	08/11/22 16:04	7439-89-6	
Manganese	**1.4**	mg/L	0.040	0.0043	1	08/11/22 09:30	08/11/22 16:04	7439-96-5	
Potassium	**7.2**	mg/L	0.20	0.15	1	08/11/22 09:30	08/11/22 16:04	7440-09-7	
Sodium	**8.7**	mg/L	1.0	0.58	1	08/11/22 09:30	08/11/22 16:04	7440-23-5	
Calcium	**173**	mg/L	1.0	0.12	1	08/11/22 09:30	08/11/22 16:04	7440-70-2	
Magnesium	**23.3**	mg/L	0.050	0.012	1	08/11/22 09:30	08/11/22 16:04	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/10/22 08:00	08/11/22 16:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/10/22 08:00	08/11/22 16:52	7440-38-2	
Barium	**0.048**	mg/L	0.0050	0.00067	1	08/10/22 08:00	08/11/22 16:52	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/10/22 08:00	08/11/22 16:52	7440-41-7	
Boron	**1.0**	mg/L	0.040	0.0086	1	08/10/22 08:00	08/11/22 16:52	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00057	5	08/10/22 08:00	08/12/22 13:56	7440-43-9	D3
Chromium	ND	mg/L	0.0050	0.0011	1	08/10/22 08:00	08/11/22 16:52	7440-47-3	
Cobalt	**0.0058**	mg/L	0.0050	0.00039	1	08/10/22 08:00	08/11/22 16:52	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/10/22 08:00	08/11/22 16:52	7439-92-1	
Lithium	**0.023J**	mg/L	0.030	0.00073	1	08/10/22 08:00	08/11/22 16:52	7439-93-2	
Molybdenum	**0.032**	mg/L	0.010	0.00074	1	08/10/22 08:00	08/11/22 16:52	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/10/22 08:00	08/11/22 16:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/10/22 08:00	08/11/22 16:52	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:33	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**632**	mg/L	20.0	20.0	1		08/09/22 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**291**	mg/L	5.0	5.0	1		08/17/22 10:53		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 10:53		
Alkalinity, Total as CaCO3	**291**	mg/L	5.0	5.0	1		08/17/22 10:53		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-120 **Lab ID: 92618823003** Collected: 08/04/22 15:55 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/10/22 03:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.7**	mg/L	1.0	0.60	1		08/17/22 09:14	16887-00-6	
Fluoride	**0.38**	mg/L	0.10	0.050	1		08/17/22 09:14	16984-48-8	
Sulfate	**230**	mg/L	5.0	2.5	5		08/18/22 01:23	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-121A **Lab ID: 92618823004** Collected: 08/04/22 13:16 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		08/08/22 10:12		
pH	**6.80**	Std. Units			1		08/08/22 10:12		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.086**	mg/L	0.040	0.025	1	08/11/22 09:30	08/11/22 16:19	7439-89-6	
Manganese	**0.73**	mg/L	0.040	0.0043	1	08/11/22 09:30	08/11/22 16:19	7439-96-5	
Potassium	**1.1**	mg/L	0.20	0.15	1	08/11/22 09:30	08/11/22 16:19	7440-09-7	
Sodium	**34.3**	mg/L	1.0	0.58	1	08/11/22 09:30	08/11/22 16:19	7440-23-5	
Calcium	**160**	mg/L	1.0	0.12	1	08/11/22 09:30	08/11/22 16:19	7440-70-2	
Magnesium	**23.8**	mg/L	0.050	0.012	1	08/11/22 09:30	08/11/22 16:19	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0016J**	mg/L	0.0030	0.00078	1	08/10/22 08:00	08/11/22 17:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/10/22 08:00	08/11/22 17:16	7440-38-2	
Barium	**0.060**	mg/L	0.0050	0.00067	1	08/10/22 08:00	08/11/22 17:16	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/10/22 08:00	08/11/22 17:16	7440-41-7	
Boron	**1.8**	mg/L	0.040	0.0086	1	08/10/22 08:00	08/11/22 17:16	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/10/22 08:00	08/11/22 17:16	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/10/22 08:00	08/11/22 17:16	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/10/22 08:00	08/11/22 17:16	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/10/22 08:00	08/11/22 17:16	7439-92-1	
Lithium	**0.0069J**	mg/L	0.030	0.00073	1	08/10/22 08:00	08/11/22 17:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/10/22 08:00	08/11/22 17:16	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/10/22 08:00	08/11/22 17:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/10/22 08:00	08/11/22 17:16	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:36	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**640**	mg/L	20.0	20.0	1		08/09/22 10:27		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**352**	mg/L	5.0	5.0	1		08/17/22 11:02		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 11:02		
Alkalinity, Total as CaCO3	**352**	mg/L	5.0	5.0	1		08/17/22 11:02		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-121A **Lab ID: 92618823004** Collected: 08/04/22 13:16 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/10/22 03:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**15.4**	mg/L	1.0	0.60	1		08/17/22 09:59	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	0.050	1		08/17/22 09:59	16984-48-8	
Sulfate	**162**	mg/L	3.0	1.5	3		08/18/22 02:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-124 **Lab ID: 92618823005** Collected: 08/04/22 11:19 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		08/08/22 10:12		
pH	**7.15**	Std. Units			1		08/08/22 10:12		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.26**	mg/L	0.040	0.025	1	08/11/22 09:30	08/11/22 16:23	7439-89-6	
Manganese	**0.38**	mg/L	0.040	0.0043	1	08/11/22 09:30	08/11/22 16:23	7439-96-5	
Potassium	**0.83**	mg/L	0.20	0.15	1	08/11/22 09:30	08/11/22 16:23	7440-09-7	
Sodium	**5.6**	mg/L	1.0	0.58	1	08/11/22 09:30	08/11/22 16:23	7440-23-5	
Calcium	**103**	mg/L	1.0	0.12	1	08/11/22 09:30	08/11/22 16:23	7440-70-2	
Magnesium	**9.5**	mg/L	0.050	0.012	1	08/11/22 09:30	08/11/22 16:23	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/10/22 08:00	08/11/22 17:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/10/22 08:00	08/11/22 17:21	7440-38-2	
Barium	**0.068**	mg/L	0.0050	0.00067	1	08/10/22 08:00	08/11/22 17:21	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/10/22 08:00	08/11/22 17:21	7440-41-7	
Boron	**0.36**	mg/L	0.040	0.0086	1	08/10/22 08:00	08/11/22 17:21	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/10/22 08:00	08/11/22 17:21	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/10/22 08:00	08/11/22 17:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/10/22 08:00	08/11/22 17:21	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/10/22 08:00	08/11/22 17:21	7439-92-1	
Lithium	**0.0011J**	mg/L	0.030	0.00073	1	08/10/22 08:00	08/11/22 17:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/10/22 08:00	08/11/22 17:21	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/10/22 08:00	08/11/22 17:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/10/22 08:00	08/11/22 17:21	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:39	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**334**	mg/L	10.0	10.0	1		08/09/22 10:01		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**239**	mg/L	5.0	5.0	1		08/17/22 11:11		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 11:11		
Alkalinity, Total as CaCO3	**239**	mg/L	5.0	5.0	1		08/17/22 11:11		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-124 **Lab ID: 92618823005** Collected: 08/04/22 11:19 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/10/22 03:57	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.6**	mg/L	1.0	0.60	1		08/17/22 10:13	16887-00-6	
Fluoride	**0.074J**	mg/L	0.10	0.050	1		08/17/22 10:13	16984-48-8	
Sulfate	**73.1**	mg/L	1.0	0.50	1		08/17/22 10:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-125 **Lab ID: 92618823006** Collected: 08/04/22 15:40 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		08/08/22 10:13		
pH	**6.09**	Std. Units			1		08/08/22 10:13		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.10**	mg/L	0.040	0.025	1	08/11/22 09:30	08/11/22 16:28	7439-89-6	
Manganese	**2.3**	mg/L	0.040	0.0043	1	08/11/22 09:30	08/11/22 16:28	7439-96-5	
Potassium	**3.4**	mg/L	0.20	0.15	1	08/11/22 09:30	08/11/22 16:28	7440-09-7	
Sodium	**16.2**	mg/L	1.0	0.58	1	08/11/22 09:30	08/11/22 16:28	7440-23-5	M1
Calcium	**170**	mg/L	1.0	0.12	1	08/11/22 09:30	08/11/22 16:28	7440-70-2	M1
Magnesium	**27.3**	mg/L	0.050	0.012	1	08/11/22 09:30	08/11/22 16:28	7439-95-4	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/10/22 08:00	08/11/22 17:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/10/22 08:00	08/11/22 17:27	7440-38-2	
Barium	**0.037**	mg/L	0.0050	0.00067	1	08/10/22 08:00	08/11/22 17:27	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/10/22 08:00	08/11/22 17:27	7440-41-7	
Boron	**1.4**	mg/L	0.040	0.0086	1	08/10/22 08:00	08/11/22 17:27	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/10/22 08:00	08/11/22 17:27	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/10/22 08:00	08/11/22 17:27	7440-47-3	
Cobalt	**0.014**	mg/L	0.0050	0.00039	1	08/10/22 08:00	08/11/22 17:27	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/10/22 08:00	08/11/22 17:27	7439-92-1	
Lithium	**0.0035J**	mg/L	0.030	0.00073	1	08/10/22 08:00	08/11/22 17:27	7439-93-2	
Molybdenum	**0.0023J**	mg/L	0.010	0.00074	1	08/10/22 08:00	08/11/22 17:27	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/10/22 08:00	08/11/22 17:27	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/10/22 08:00	08/11/22 17:27	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:41	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**706**	mg/L	20.0	20.0	1		08/09/22 10:02		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**189**	mg/L	5.0	5.0	1		08/17/22 03:32		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 03:32		
Alkalinity, Total as CaCO3	**189**	mg/L	5.0	5.0	1		08/17/22 03:32		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-125 **Lab ID: 92618823006** Collected: 08/04/22 15:40 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/10/22 03:58	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**11.6**	mg/L	1.0	0.60	1		08/17/22 10:28	16887-00-6	
Fluoride	**0.15**	mg/L	0.10	0.050	1		08/17/22 10:28	16984-48-8	
Sulfate	**331**	mg/L	7.0	3.5	7		08/18/22 02:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-126 **Lab ID: 92618823007** Collected: 08/04/22 16:46 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		08/08/22 10:13		
pH	**6.99**	Std. Units			1		08/08/22 10:13		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**1.5**	mg/L	0.040	0.025	1	08/11/22 09:30	08/11/22 16:47	7439-89-6	
Manganese	**0.19**	mg/L	0.040	0.0043	1	08/11/22 09:30	08/11/22 16:47	7439-96-5	
Potassium	**0.78**	mg/L	0.20	0.15	1	08/11/22 09:30	08/11/22 16:47	7440-09-7	
Sodium	**31.3**	mg/L	1.0	0.58	1	08/11/22 09:30	08/11/22 16:47	7440-23-5	
Calcium	**141**	mg/L	1.0	0.12	1	08/11/22 09:30	08/11/22 16:47	7440-70-2	
Magnesium	**26.5**	mg/L	0.050	0.012	1	08/11/22 09:30	08/11/22 16:47	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/10/22 08:00	08/11/22 17:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/10/22 08:00	08/11/22 17:33	7440-38-2	
Barium	**0.24**	mg/L	0.0050	0.00067	1	08/10/22 08:00	08/11/22 17:33	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/10/22 08:00	08/11/22 17:33	7440-41-7	
Boron	**0.023J**	mg/L	0.040	0.0086	1	08/10/22 08:00	08/11/22 17:33	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/10/22 08:00	08/11/22 17:33	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/10/22 08:00	08/11/22 17:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/10/22 08:00	08/11/22 17:33	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/10/22 08:00	08/11/22 17:33	7439-92-1	
Lithium	**0.0034J**	mg/L	0.030	0.00073	1	08/10/22 08:00	08/11/22 17:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/10/22 08:00	08/11/22 17:33	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/10/22 08:00	08/11/22 17:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/10/22 08:00	08/11/22 17:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:44	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**510**	mg/L	20.0	20.0	1		08/09/22 10:02		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**434**	mg/L	5.0	5.0	1		08/17/22 11:19		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 11:19		
Alkalinity, Total as CaCO3	**434**	mg/L	5.0	5.0	1		08/17/22 11:19		

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: HGWC-126 **Lab ID: 92618823007** Collected: 08/04/22 16:46 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/10/22 04:01	18496-25-8	M1
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8.7**	mg/L	1.0	0.60	1		08/17/22 10:43	16887-00-6	
Fluoride	**0.50**	mg/L	0.10	0.050	1		08/17/22 10:43	16984-48-8	
Sulfate	**68.3**	mg/L	1.0	0.50	1		08/17/22 10:43	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: DUP-3 **Lab ID: 92618823008** Collected: 08/04/22 00:00 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	**0.058**	mg/L	0.040	0.025	1	08/11/22 09:30	08/11/22 16:52	7439-89-6	
Manganese	**0.74**	mg/L	0.040	0.0043	1	08/11/22 09:30	08/11/22 16:52	7439-96-5	
Potassium	**1.1**	mg/L	0.20	0.15	1	08/11/22 09:30	08/11/22 16:52	7440-09-7	
Sodium	**34.8**	mg/L	1.0	0.58	1	08/11/22 09:30	08/11/22 16:52	7440-23-5	
Calcium	**162**	mg/L	1.0	0.12	1	08/11/22 09:30	08/11/22 16:52	7440-70-2	
Magnesium	**23.9**	mg/L	0.050	0.012	1	08/11/22 09:30	08/11/22 16:52	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/10/22 08:00	08/11/22 17:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/10/22 08:00	08/11/22 17:55	7440-38-2	
Barium	**0.059**	mg/L	0.0050	0.00067	1	08/10/22 08:00	08/11/22 17:55	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/10/22 08:00	08/11/22 17:55	7440-41-7	
Boron	**1.8**	mg/L	0.040	0.0086	1	08/10/22 08:00	08/11/22 17:55	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/10/22 08:00	08/11/22 17:55	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/10/22 08:00	08/11/22 17:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/10/22 08:00	08/11/22 17:55	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/10/22 08:00	08/11/22 17:55	7439-92-1	
Lithium	**0.0069J**	mg/L	0.030	0.00073	1	08/10/22 08:00	08/11/22 17:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/10/22 08:00	08/11/22 17:55	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/10/22 08:00	08/11/22 17:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/10/22 08:00	08/11/22 17:55	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:47	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**628**	mg/L	20.0	20.0	1		08/09/22 10:02		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	**366**	mg/L	5.0	5.0	1		08/17/22 19:54		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 19:54		
Alkalinity, Total as CaCO3	**366**	mg/L	5.0	5.0	1		08/17/22 19:54		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/10/22 04:03	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**15.3**	mg/L	1.0	0.60	1		08/17/22 10:58	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: DUP-3 **Lab ID: 92618823008** Collected: 08/04/22 00:00 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.18**	mg/L	0.10	0.050	1		08/17/22 10:58	16984-48-8	
Sulfate	**164**	mg/L	3.0	1.5	3		08/18/22 02:37	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: EB-3 **Lab ID: 92618823009** Collected: 08/04/22 17:25 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	ND	mg/L	0.040	0.025	1	08/11/22 09:30	08/11/22 16:57	7439-89-6	
Manganese	ND	mg/L	0.040	0.0043	1	08/11/22 09:30	08/11/22 16:57	7439-96-5	
Potassium	ND	mg/L	0.20	0.15	1	08/11/22 09:30	08/11/22 16:57	7440-09-7	
Sodium	ND	mg/L	1.0	0.58	1	08/11/22 09:30	08/11/22 16:57	7440-23-5	
Calcium	ND	mg/L	1.0	0.12	1	08/11/22 09:30	08/11/22 16:57	7440-70-2	
Magnesium	ND	mg/L	0.050	0.012	1	08/11/22 09:30	08/11/22 16:57	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/10/22 08:00	08/11/22 18:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/10/22 08:00	08/11/22 18:01	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	08/10/22 08:00	08/11/22 18:01	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/10/22 08:00	08/11/22 18:01	7440-41-7	
Boron	**0.012J**	mg/L	0.040	0.0086	1	08/10/22 08:00	08/11/22 18:01	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/10/22 08:00	08/11/22 18:01	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/10/22 08:00	08/11/22 18:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/10/22 08:00	08/11/22 18:01	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/10/22 08:00	08/11/22 18:01	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/10/22 08:00	08/11/22 18:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/10/22 08:00	08/11/22 18:01	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/10/22 08:00	08/11/22 18:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/10/22 08:00	08/11/22 18:01	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:49	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		08/09/22 10:02		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 12:51		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 12:51		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		08/17/22 12:51		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/10/22 04:04	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		08/17/22 11:13	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: EB-3 **Lab ID: 92618823009** Collected: 08/04/22 17:25 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	ND	mg/L	0.10	0.050	1		08/17/22 11:13	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		08/17/22 11:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: FB-3 **Lab ID: 92618823010** Collected: 08/04/22 17:05 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Iron	ND	mg/L	0.040	0.025	1	08/11/22 09:30	08/11/22 17:02	7439-89-6	
Manganese	ND	mg/L	0.040	0.0043	1	08/11/22 09:30	08/11/22 17:02	7439-96-5	
Potassium	ND	mg/L	0.20	0.15	1	08/11/22 09:30	08/11/22 17:02	7440-09-7	
Sodium	ND	mg/L	1.0	0.58	1	08/11/22 09:30	08/11/22 17:02	7440-23-5	
Calcium	ND	mg/L	1.0	0.12	1	08/11/22 09:30	08/11/22 17:02	7440-70-2	
Magnesium	ND	mg/L	0.050	0.012	1	08/11/22 09:30	08/11/22 17:02	7439-95-4	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	08/10/22 08:00	08/11/22 18:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	08/10/22 08:00	08/11/22 18:07	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	08/10/22 08:00	08/11/22 18:07	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	08/10/22 08:00	08/11/22 18:07	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	08/10/22 08:00	08/11/22 18:07	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	08/10/22 08:00	08/11/22 18:07	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	08/10/22 08:00	08/11/22 18:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	08/10/22 08:00	08/11/22 18:07	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	08/10/22 08:00	08/11/22 18:07	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	08/10/22 08:00	08/11/22 18:07	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	08/10/22 08:00	08/11/22 18:07	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	08/10/22 08:00	08/11/22 18:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	08/10/22 08:00	08/11/22 18:07	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	08/11/22 07:15	08/11/22 12:52	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		08/09/22 10:02		
2320B Alkalinity	Analytical Method: SM 2320B-2011 Pace Analytical Services - Asheville								
Alkalinity,Bicarbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 13:06		
Alkalinity,Carbonate (CaCO3)	ND	mg/L	5.0	5.0	1		08/17/22 13:06		
Alkalinity, Total as CaCO3	ND	mg/L	5.0	5.0	1		08/17/22 13:06		
4500S2D Sulfide Water	Analytical Method: SM 4500-S2D-2011 Pace Analytical Services - Asheville								
Sulfide	ND	mg/L	0.10	0.050	1		08/10/22 04:04	18496-25-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		08/17/22 11:58	16887-00-6	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: HAMMOND AP-3
Pace Project No.: 92618823

Sample: FB-3 **Lab ID: 92618823010** Collected: 08/04/22 17:05 Received: 08/05/22 14:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	ND	mg/L	0.10	0.050	1		08/17/22 11:58	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		08/17/22 11:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 716032
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92618823001, 92618823002

METHOD BLANK: 3732776 Matrix: Water
Associated Lab Samples: 92618823001, 92618823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	08/11/22 13:20	
Iron	mg/L	ND	0.040	0.025	08/11/22 13:20	
Magnesium	mg/L	ND	0.050	0.012	08/11/22 13:20	
Manganese	mg/L	ND	0.040	0.0043	08/11/22 13:20	
Potassium	mg/L	ND	0.20	0.15	08/11/22 13:20	
Sodium	mg/L	ND	1.0	0.58	08/11/22 13:20	

LABORATORY CONTROL SAMPLE: 3732777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	
Iron	mg/L	1	1.0	104	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Manganese	mg/L	1	1.1	106	80-120	
Potassium	mg/L	1	1.1	109	80-120	
Sodium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732778 3732779

Parameter	Units	92618820002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	153	1	1	150	153	-362	-50	75-125	2	20	M1
Iron	mg/L	0.053	1	1	1.1	1.1	107	108	75-125	1	20	
Magnesium	mg/L	21.3	1	1	21.8	22.2	57	96	75-125	2	20	M1
Manganese	mg/L	0.31	1	1	1.4	1.4	105	106	75-125	1	20	
Potassium	mg/L	7.7	1	1	8.6	8.8	92	109	75-125	2	20	
Sodium	mg/L	9.4	1	1	10.2	10.4	79	96	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 716036
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

METHOD BLANK: 3732817 Matrix: Water
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	08/11/22 15:55	
Iron	mg/L	ND	0.040	0.025	08/11/22 15:55	
Magnesium	mg/L	ND	0.050	0.012	08/11/22 15:55	
Manganese	mg/L	ND	0.040	0.0043	08/11/22 15:55	
Potassium	mg/L	ND	0.20	0.15	08/11/22 15:55	
Sodium	mg/L	ND	1.0	0.58	08/11/22 15:55	

LABORATORY CONTROL SAMPLE: 3732818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	106	80-120	
Iron	mg/L	1	1.1	106	80-120	
Magnesium	mg/L	1	1.1	106	80-120	
Manganese	mg/L	1	1.1	108	80-120	
Potassium	mg/L	1	1.0	105	80-120	
Sodium	mg/L	1	1.1	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732819 3732820

Parameter	Units	92618823006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	170	1	1	171	166	120	-307	75-125	3	20	M1
Iron	mg/L	0.10	1	1	1.2	1.2	109	107	75-125	2	20	
Magnesium	mg/L	27.3	1	1	28.6	27.7	123	41	75-125	3	20	M1
Manganese	mg/L	2.3	1	1	3.4	3.3	109	100	75-125	3	20	
Potassium	mg/L	3.4	1	1	4.6	4.4	120	99	75-125	5	20	
Sodium	mg/L	16.2	1	1	17.5	16.8	125	62	75-125	4	20	M1

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 715918
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92618823001, 92618823002

METHOD BLANK: 3732042 Matrix: Water
Associated Lab Samples: 92618823001, 92618823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	08/10/22 17:46	
Arsenic	mg/L	ND	0.0050	0.0022	08/10/22 17:46	
Barium	mg/L	ND	0.0050	0.00067	08/10/22 17:46	
Beryllium	mg/L	ND	0.00050	0.000054	08/10/22 17:46	
Boron	mg/L	ND	0.040	0.0086	08/10/22 17:46	
Cadmium	mg/L	ND	0.00050	0.00011	08/10/22 17:46	
Chromium	mg/L	ND	0.0050	0.0011	08/10/22 17:46	
Cobalt	mg/L	ND	0.0050	0.00039	08/10/22 17:46	
Lead	mg/L	ND	0.0010	0.00089	08/10/22 17:46	
Lithium	mg/L	ND	0.030	0.00073	08/10/22 17:46	
Molybdenum	mg/L	ND	0.010	0.00074	08/10/22 17:46	
Selenium	mg/L	ND	0.0050	0.0014	08/10/22 17:46	
Thallium	mg/L	ND	0.0010	0.00018	08/10/22 17:46	

LABORATORY CONTROL SAMPLE: 3732043

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	120	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	0.10	100	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	0.1	0.10	104	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.11	105	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732044 3732045

Parameter	Units	92618820002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.12	0.13	123	128	75-125	4	20	M1
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732044 3732045

Parameter	Units	92618820002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.060	0.1	0.1	0.18	0.19	120	126	75-125	3	20	M1
Beryllium	mg/L	0.000056J	0.1	0.1	0.089	0.087	89	87	75-125	2	20	
Boron	mg/L	1.5	1	1	2.3	2.3	80	82	75-125	1	20	
Cadmium	mg/L	0.00017J	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Chromium	mg/L	ND	0.1	0.1	0.098	0.097	97	97	75-125	1	20	
Cobalt	mg/L	0.0024J	0.1	0.1	0.097	0.098	95	95	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.097	96	97	75-125	1	20	
Lithium	mg/L	0.0026J	0.1	0.1	0.090	0.090	88	87	75-125	0	20	
Molybdenum	mg/L	0.29	0.1	0.1	0.41	0.43	116	138	75-125	5	20	M1
Selenium	mg/L	ND	0.1	0.1	0.10	0.099	99	98	75-125	0	20	
Thallium	mg/L	0.00018J	0.1	0.1	0.097	0.097	97	97	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 716035
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

METHOD BLANK: 3732802 Matrix: Water
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	08/11/22 16:40	
Arsenic	mg/L	ND	0.0050	0.0022	08/11/22 16:40	
Barium	mg/L	ND	0.0050	0.00067	08/11/22 16:40	
Beryllium	mg/L	ND	0.00050	0.000054	08/11/22 16:40	
Boron	mg/L	ND	0.040	0.0086	08/11/22 16:40	
Cadmium	mg/L	ND	0.00050	0.00011	08/11/22 16:40	
Chromium	mg/L	ND	0.0050	0.0011	08/11/22 16:40	
Cobalt	mg/L	ND	0.0050	0.00039	08/11/22 16:40	
Lead	mg/L	ND	0.0010	0.00089	08/11/22 16:40	
Lithium	mg/L	ND	0.030	0.00073	08/11/22 16:40	
Molybdenum	mg/L	ND	0.010	0.00074	08/11/22 16:40	
Selenium	mg/L	ND	0.0050	0.0014	08/11/22 16:40	
Thallium	mg/L	ND	0.0010	0.00018	08/11/22 16:40	

LABORATORY CONTROL SAMPLE: 3732803

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.094	94	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.10	103	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.095	95	80-120	
Thallium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732804 3732805

Parameter	Units	92618823003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732804 3732805

Parameter	Units	92618823003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.099	0.092	98	91	75-125	7	20	
Barium	mg/L	0.048	0.1	0.1	0.15	0.16	105	110	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.086	0.079	86	79	75-125	8	20	
Boron	mg/L	1.0	1	1	2.0	2.0	99	90	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.095	0.088	95	88	75-125	7	20	
Chromium	mg/L	ND	0.1	0.1	0.099	0.091	98	90	75-125	9	20	
Cobalt	mg/L	0.0058	0.1	0.1	0.10	0.095	95	89	75-125	6	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.090	96	90	75-125	6	20	
Lithium	mg/L	0.023J	0.1	0.1	0.11	0.10	88	79	75-125	8	20	
Molybdenum	mg/L	0.032	0.1	0.1	0.12	0.13	91	98	75-125	6	20	
Selenium	mg/L	ND	0.1	0.1	0.095	0.089	95	89	75-125	7	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.091	96	91	75-125	6	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 716252
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92618823001, 92618823002, 92618823003, 92618823004, 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

METHOD BLANK: 3733717 Matrix: Water
Associated Lab Samples: 92618823001, 92618823002, 92618823003, 92618823004, 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	08/11/22 11:59	

LABORATORY CONTROL SAMPLE: 3733718

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0021	83	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3733719 3733720

Parameter	Units	92618822001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0021	0.0019	84	75	75-125	10	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 715874 | 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: 92618823001, 92618823002, 92618823003, 92618823004

METHOD BLANK: 3731839 Matrix: Water
Associated Lab Samples: 92618823001, 92618823002, 92618823003, 92618823004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/09/22 10:22	

LABORATORY CONTROL SAMPLE: 3731840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	390	98	80-120	

SAMPLE DUPLICATE: 3731841

Parameter	Units	92618822001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	48.0	47.0	2	25	

SAMPLE DUPLICATE: 3731990

Parameter	Units	92618829005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	311	341	9	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 715879 | 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: 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

METHOD BLANK: 3731855 Matrix: Water
Associated Lab Samples: 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/09/22 10:01	

LABORATORY CONTROL SAMPLE: 3731856

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	384	96	80-120	

SAMPLE DUPLICATE: 3731857

Parameter	Units	92618823005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	334	334	0	25	

SAMPLE DUPLICATE: 3731858

Parameter	Units	92618820016 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	302	335	10	25	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 716055
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618823001, 92618823002

METHOD BLANK: 3732994 Matrix: Water
Associated Lab Samples: 92618823001, 92618823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	08/09/22 21:00	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	08/09/22 21:00	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	08/09/22 21:00	

LABORATORY CONTROL SAMPLE: 3732995

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.0	102	80-120	

LABORATORY CONTROL SAMPLE: 3732996

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	52.5	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3732997 3732998

Parameter	Units	92618216031 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	55.8	50	50	107	108	103	104	80-120	1	25	

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Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 717515
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006, 92618823007

METHOD BLANK: 3740358 Matrix: Water
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006, 92618823007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	08/16/22 23:08	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	08/16/22 23:08	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	08/16/22 23:08	

LABORATORY CONTROL SAMPLE: 3740359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.9	104	80-120	

LABORATORY CONTROL SAMPLE: 3740360

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	49.8	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3740361 3740362

Parameter	Units	92618505017 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	44.2	50	50	93.9	94.7	99	101	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3740363 3740364

Parameter	Units	92618505018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	135	50	50	184	184	97	98	80-120	0	25	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 717728
QC Batch Method: SM 2320B-2011
Analysis Method: SM 2320B-2011
Analysis Description: 2320B Alkalinity
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618823008, 92618823009, 92618823010

METHOD BLANK: 3741339 Matrix: Water
Associated Lab Samples: 92618823008, 92618823009, 92618823010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Alkalinity, Total as CaCO3	mg/L	ND	5.0	5.0	08/17/22 12:09	
Alkalinity,Bicarbonate (CaCO3)	mg/L	ND	5.0	5.0	08/17/22 12:09	
Alkalinity,Carbonate (CaCO3)	mg/L	ND	5.0	5.0	08/17/22 12:09	

LABORATORY CONTROL SAMPLE: 3741340

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.6	103	80-120	

LABORATORY CONTROL SAMPLE: 3741341

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total as CaCO3	mg/L	50	51.3	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3741344 3741345

Parameter	Units	92618823009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	ND	50	50	52.3	51.5	104	103	80-120	1	25	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3742568 3742569

Parameter	Units	92618820012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Alkalinity, Total as CaCO3	mg/L	185	50	50	233	233	97	96	80-120	0	25	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 715461
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618823001, 92618823002

METHOD BLANK: 3730179 Matrix: Water
Associated Lab Samples: 92618823001, 92618823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	08/06/22 03:29	

LABORATORY CONTROL SAMPLE: 3730180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.48	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3730181 3730182

Parameter	Units	92618725005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.44	0.48	86	94	80-120	8	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3730183 3730184

Parameter	Units	92618728001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.53	0.53	104	105	80-120	1	10	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 716114
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006

METHOD BLANK: 3733262 Matrix: Water
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	08/10/22 03:40	

LABORATORY CONTROL SAMPLE: 3733263

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.50	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3733264 3733265

Parameter	Units	92618767003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.57	0.57	107	108	80-120	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3733266 3733267

Parameter	Units	92618767015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.36	0.33	71	66	80-120	8	10	M1

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 716115
QC Batch Method: SM 4500-S2D-2011
Analysis Method: SM 4500-S2D-2011
Analysis Description: 4500S2D Sulfide Water
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618823007, 92618823008, 92618823009, 92618823010

METHOD BLANK: 3733268 Matrix: Water
Associated Lab Samples: 92618823007, 92618823008, 92618823009, 92618823010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Sulfide	mg/L	ND	0.10	0.050	08/10/22 04:00	

LABORATORY CONTROL SAMPLE: 3733269

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfide	mg/L	0.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3733270 3733271

Parameter	Units	92618823007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	ND	0.5	0.5	0.33	0.33	60	60	80-120	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3733272 3733273

Parameter	Units	92618820018 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Sulfide	mg/L	3.9	0.5	0.5	4.7	4.7	164	169	80-120	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 716707
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618823001, 92618823002

METHOD BLANK: 3736371 Matrix: Water
Associated Lab Samples: 92618823001, 92618823002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/12/22 10:25	
Fluoride	mg/L	ND	0.10	0.050	08/12/22 10:25	
Sulfate	mg/L	ND	1.0	0.50	08/12/22 10:25	

LABORATORY CONTROL SAMPLE: 3736372

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.1	106	90-110	
Fluoride	mg/L	2.5	2.6	106	90-110	
Sulfate	mg/L	50	51.7	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3736373 3736374

Parameter	Units	92618820001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	37.9	50	50	94.8	94.7	114	114	90-110	0	10	M1
Fluoride	mg/L	0.11	2.5	2.5	2.8	2.8	107	109	90-110	1	10	
Sulfate	mg/L	105	50	50	152	150	94	90	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3736375 3736376

Parameter	Units	92618820011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	63.5	50	50	101	100	74	74	90-110	0	10	M1
Fluoride	mg/L	0.069J	2.5	2.5	2.8	2.7	108	106	90-110	2	10	
Sulfate	mg/L	140	50	50	186	187	92	93	90-110	0	10	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: HAMMOND AP-3
Pace Project No.: 92618823

QC Batch: 717488
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

METHOD BLANK: 3740180 Matrix: Water
Associated Lab Samples: 92618823003, 92618823004, 92618823005, 92618823006, 92618823007, 92618823008, 92618823009, 92618823010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	08/17/22 08:09	
Fluoride	mg/L	ND	0.10	0.050	08/17/22 08:09	
Sulfate	mg/L	ND	1.0	0.50	08/17/22 08:09	

LABORATORY CONTROL SAMPLE: 3740181

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.9	100	90-110	
Fluoride	mg/L	2.5	2.5	99	90-110	
Sulfate	mg/L	50	49.9	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3740182 3740183

Parameter	Units	92618823003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.7	50	50	54.9	54.4	104	104	90-110	1	10	
Fluoride	mg/L	0.38	2.5	2.5	2.8	2.8	97	96	90-110	1	10	
Sulfate	mg/L	230	50	50	276	276	93	93	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3740184 3740185

Parameter	Units	92618820014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	11.3	50	50	63.6	63.4	105	104	90-110	0	10	
Fluoride	mg/L	0.18	2.5	2.5	2.6	2.6	97	97	90-110	0	10	
Sulfate	mg/L	412	50	50	465	460	106	96	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.

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: HAMMOND AP-3
Pace Project No.: 92618823

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

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92618823001	**HGWA-45D**				
92618823002	**HGWA-122**				
92618823003	**HGWC-120**				
92618823004	**HGWC-121A**				
92618823005	**HGWC-124**				
92618823006	**HGWC-125**				
92618823007	**HGWC-126**				
92618823001	**HGWA-45D**	EPA 3010A	716032	EPA 6010D	716586
92618823002	**HGWA-122**	EPA 3010A	716032	EPA 6010D	716586
92618823003	**HGWC-120**	EPA 3010A	716036	EPA 6010D	716583
92618823004	**HGWC-121A**	EPA 3010A	716036	EPA 6010D	716583
92618823005	**HGWC-124**	EPA 3010A	716036	EPA 6010D	716583
92618823006	**HGWC-125**	EPA 3010A	716036	EPA 6010D	716583
92618823007	**HGWC-126**	EPA 3010A	716036	EPA 6010D	716583
92618823008	**DUP-3**	EPA 3010A	716036	EPA 6010D	716583
92618823009	**EB-3**	EPA 3010A	716036	EPA 6010D	716583
92618823010	**FB-3**	EPA 3010A	716036	EPA 6010D	716583
92618823001	**HGWA-45D**	EPA 3005A	715918	EPA 6020B	716063
92618823002	**HGWA-122**	EPA 3005A	715918	EPA 6020B	716063
92618823003	**HGWC-120**	EPA 3005A	716035	EPA 6020B	716280
92618823004	**HGWC-121A**	EPA 3005A	716035	EPA 6020B	716280
92618823005	**HGWC-124**	EPA 3005A	716035	EPA 6020B	716280
92618823006	**HGWC-125**	EPA 3005A	716035	EPA 6020B	716280
92618823007	**HGWC-126**	EPA 3005A	716035	EPA 6020B	716280
92618823008	**DUP-3**	EPA 3005A	716035	EPA 6020B	716280
92618823009	**EB-3**	EPA 3005A	716035	EPA 6020B	716280
92618823010	**FB-3**	EPA 3005A	716035	EPA 6020B	716280
92618823001	**HGWA-45D**	EPA 7470A	716252	EPA 7470A	716491
92618823002	**HGWA-122**	EPA 7470A	716252	EPA 7470A	716491
92618823003	**HGWC-120**	EPA 7470A	716252	EPA 7470A	716491
92618823004	**HGWC-121A**	EPA 7470A	716252	EPA 7470A	716491
92618823005	**HGWC-124**	EPA 7470A	716252	EPA 7470A	716491
92618823006	**HGWC-125**	EPA 7470A	716252	EPA 7470A	716491
92618823007	**HGWC-126**	EPA 7470A	716252	EPA 7470A	716491
92618823008	**DUP-3**	EPA 7470A	716252	EPA 7470A	716491
92618823009	**EB-3**	EPA 7470A	716252	EPA 7470A	716491
92618823010	**FB-3**	EPA 7470A	716252	EPA 7470A	716491
92618823001	**HGWA-45D**	SM 2540C-2015	715874		
92618823002	**HGWA-122**	SM 2540C-2015	715874		
92618823003	**HGWC-120**	SM 2540C-2015	715874		
92618823004	**HGWC-121A**	SM 2540C-2015	715874		
92618823005	**HGWC-124**	SM 2540C-2015	715879		
92618823006	**HGWC-125**	SM 2540C-2015	715879		
92618823007	**HGWC-126**	SM 2540C-2015	715879		
92618823008	**DUP-3**	SM 2540C-2015	715879		

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-3
Pace Project No.: 92618823

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92618823009	**EB-3**	SM 2540C-2015	715879		
92618823010	**FB-3**	SM 2540C-2015	715879		
92618823001	**HGWA-45D**	SM 2320B-2011	716055		
92618823002	**HGWA-122**	SM 2320B-2011	716055		
92618823003	**HGWC-120**	SM 2320B-2011	717515		
92618823004	**HGWC-121A**	SM 2320B-2011	717515		
92618823005	**HGWC-124**	SM 2320B-2011	717515		
92618823006	**HGWC-125**	SM 2320B-2011	717515		
92618823007	**HGWC-126**	SM 2320B-2011	717515		
92618823008	**DUP-3**	SM 2320B-2011	717728		
92618823009	**EB-3**	SM 2320B-2011	717728		
92618823010	**FB-3**	SM 2320B-2011	717728		
92618823001	**HGWA-45D**	SM 4500-S2D-2011	715461		
92618823002	**HGWA-122**	SM 4500-S2D-2011	715461		
92618823003	**HGWC-120**	SM 4500-S2D-2011	716114		
92618823004	**HGWC-121A**	SM 4500-S2D-2011	716114		
92618823005	**HGWC-124**	SM 4500-S2D-2011	716114		
92618823006	**HGWC-125**	SM 4500-S2D-2011	716114		
92618823007	**HGWC-126**	SM 4500-S2D-2011	716115		
92618823008	**DUP-3**	SM 4500-S2D-2011	716115		
92618823009	**EB-3**	SM 4500-S2D-2011	716115		
92618823010	**FB-3**	SM 4500-S2D-2011	716115		
92618823001	**HGWA-45D**	EPA 300.0 Rev 2.1 1993	716707		
92618823002	**HGWA-122**	EPA 300.0 Rev 2.1 1993	716707		
92618823003	**HGWC-120**	EPA 300.0 Rev 2.1 1993	717488		
92618823004	**HGWC-121A**	EPA 300.0 Rev 2.1 1993	717488		
92618823005	**HGWC-124**	EPA 300.0 Rev 2.1 1993	717488		
92618823006	**HGWC-125**	EPA 300.0 Rev 2.1 1993	717488		
92618823007	**HGWC-126**	EPA 300.0 Rev 2.1 1993	717488		
92618823008	**DUP-3**	EPA 300.0 Rev 2.1 1993	717488		
92618823009	**EB-3**	EPA 300.0 Rev 2.1 1993	717488		
92618823010	**FB-3**	EPA 300.0 Rev 2.1 1993	717488		

REPORT OF LABORATORY ANALYSIS

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

Effective Date: 05/12/2022

Laboratory receiving samples:

~~Asheville~~ ☐ ~~Eden~~ ☐ ~~Greenwood~~ ☐ ~~Huntersville~~ ☐ ~~Raleigh~~ ☐ ~~Mechanicsville~~ ☐ ~~Atlanta~~ ☑ ~~Kernersville~~ ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO# : 92618823

92618823

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 8/4/22 CMG

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.3 **Correction Factor:** Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: **Date:**

Project Manager SRF Review: **Date:**

WO#: 92618823

PM: NMG Due Date: 08/18/22

CLIENT: GA-GA Power

~~*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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG9A-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (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 H2SO4 (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																	2				
2		2	1			1	1																	2				
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-3
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Major Ions	Alkalinity, Bicarbonate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Requested Analysis Filtered (Y/N)	N	N	N	N	N	N		
1	HGWA-45D	WG	G	8/2/2022	12:30	TK 8/2/2022		21	7	3		3					1		X	X	X	X	X	X	N	pH = 7.39
2	HGWA-122	WG	G	8/2/2022	13:57			21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.67
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										TK 8/2/2022
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Kressler/Geo	8/4/2022	1230	Ryan William /Pace	8/4/2022	1230	
	Ryan William /Pace	8/4/2022	1515	Chandy Hurley	8/4/22	1515	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Kressler, Kristen Ormerod

SIGNATURE of SAMPLER: [signature] [signature]

DATE Signed (MM/DD/YY): 8/2/2022

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

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

Pace ANALYTICAL SERVICES

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

Effective Date: 05/12/2022

Laboratory receiving samples:

~~Asheville~~ ☐ ~~Eden~~ ☐ ~~Greenwood~~ ☐ ~~Huntersville~~ ☐ ~~Raleigh~~ ☐ ~~Mechanicsville~~ ☐ ~~Atlanta~~ ☑ ~~Kansasville~~ ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO#: 92618823

PM: NMG **Due Date: 08/18/22**

CLIENT: GA-GA Power

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 8/5/22 JH

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

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☑ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.0 **Correction Factor:** Add/Subtract (°C) 0.0

Cooler Temp Corrected (°C): 3.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: **Date:**

Project Manager SRF Review: **Date:**

*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# : 92618823

PM: NMG Due Date: 08/18/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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 HCl (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 H2SO4 (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)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																		2				
2		2	1			1	1																		2				
3		2	1			1	1																		2				
4		2	1			1	1																		2				
5		2	1			1	1																		2				
6		2	1			1	1																		2				
7		2	1			1	1																		2				
8		2	1			1	1																		2				
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A — Required Client Information

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B — Required Project Information

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-3
Project Number:	

Section C — Invoice Information

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D — Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END DATE	COLLECTED COMPOSITE END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Major Ions	Alkalinity, Bicarbonate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
										Requested Analysis Filtered (Y/N)								Y/N	N	N	N	N	N	N		
1	HGWC-120	WG	G	8/4/2022	15:55	TK 8/4/2022		21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.93
2	HGWC-121A	WG	G	8/4/2022	13:16			21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.80
3	HGWC-124	WG	G	8/4/2022	11:19			20	7	3		3					1		X	X	X	X	X	X	N	pH = 7.15
4	HGWC-125	WG	G	8/4/2022	15:40			21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.09
5	HGWC-126	WG	G	8/4/2022	16:48			21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.99
6	DUP-3	WG	G	8/4/2022	00:00			21	7	3		3					1		X	X	X	X	X	X	N	N/A
7	EB-3 WQ	WG	G	8/4/2022	17:25			21	7	3		3					1		X	X	X	X	X	X	N	N/A
8	FB-3 WQ	WG	G	8/4/2022	17:05			21	7	3		3					1		X	X	X	X	X	X	N	N/A
9				9-2-2022																						Last sample
10																										
11						TK 8/4/2022																				
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Kessler / Geo	8/5/2022	850	Anthony Sweat / Geosyntec	8/5/2022	1350	
	Anthony Sweat / Geosyntec	8/5/2022	1415	Ryan Williams / Pace	8/5/2022	1415	
	Ryan Williams / Pace	8/5/2022	1625		8/5/22	1625	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Kessler, Anthony Sweat, Ryan Williams

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 8/4/2022

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

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

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

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

September 08, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 04, 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'Oleo

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

Enclosures

cc: Noelia Gangi, Georgia Power
Ben Hodges, Georgia Power
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Laura Midkiff, Georgia Power
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Michael Smilley, Georgia Power
Anthony Szwast, Geosyntec
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

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

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(770)734-4200

SAMPLE SUMMARY

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92618785001	**HGWA-1**	Water	08/02/22 09:44	08/04/22 12:30
92618785002	**HGWA-2**	Water	08/02/22 12:28	08/04/22 12:30
92618785003	**HGWA-3**	Water	08/02/22 14:08	08/04/22 12:30
92618785004	**HGWA-43D**	Water	08/02/22 09:33	08/04/22 12:30
92618785005	**HGWA-44D**	Water	08/02/22 10:42	08/04/22 12:30

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SAMPLE ANALYTE COUNT

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92618785001	**HGWA-1**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618785002	**HGWA-2**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618785003	**HGWA-3**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618785004	**HGWA-43D**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618785005	**HGWA-44D**	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

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

SUMMARY OF DETECTION

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618785001	**HGWA-1**					
EPA 9315	Radium-226	0.106 ± 0.204 (0.469) C:79% T:NA	pCi/L		09/06/22 08:53	
EPA 9320	Radium-228	0.0966 ± 0.281 (0.632) C:81% T:87%	pCi/L		08/29/22 11:34	
Total Radium Calculation	Total Radium	0.203 ± 0.485 (1.10)	pCi/L		09/06/22 15:52	
92618785002	**HGWA-2**					
EPA 9315	Radium-226	0.119 ± 0.196 (0.434) C:83% T:NA	pCi/L		09/06/22 08:55	
EPA 9320	Radium-228	0.742 ± 0.357 (0.601) C:80% T:88%	pCi/L		08/29/22 11:34	
Total Radium Calculation	Total Radium	0.861 ± 0.553 (1.04)	pCi/L		09/06/22 15:52	
92618785003	**HGWA-3**					
EPA 9315	Radium-226	-0.0471 ± 0.162 (0.494) C:87% T:NA	pCi/L		09/06/22 08:55	
EPA 9320	Radium-228	0.400 ± 0.346 (0.699) C:78% T:87%	pCi/L		08/29/22 11:34	
Total Radium Calculation	Total Radium	0.400 ± 0.508 (1.19)	pCi/L		09/06/22 15:52	
92618785004	**HGWA-43D**					
EPA 9315	Radium-226	0.297 ± 0.256 (0.460) C:86% T:NA	pCi/L		09/06/22 08:55	
EPA 9320	Radium-228	0.365 ± 0.318 (0.636) C:82% T:87%	pCi/L		08/29/22 12:28	
Total Radium Calculation	Total Radium	0.662 ± 0.574 (1.10)	pCi/L		09/06/22 15:52	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618785005	**HGWA-44D**					
EPA 9315	Radium-226	0.0642 ± 0.408 (1.04) C:45% T:NA	pCi/L		09/06/22 08:56	
EPA 9320	Radium-228	0.888 ± 0.367 (0.564) C:80% T:90%	pCi/L		08/29/22 11:34	
Total Radium Calculation	Total Radium	0.952 ± 0.775 (1.60)	pCi/L		09/06/22 15:52	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Sample: HGWA-1 **Lab ID: 92618785001** Collected: 08/02/22 09:44 Received: 08/04/22 12:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.106 ± 0.204 (0.469) C:79% T:NA**	pCi/L	09/06/22 08:53	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.0966 ± 0.281 (0.632) C:81% T:87%**	pCi/L	08/29/22 11:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.203 ± 0.485 (1.10)**	pCi/L	09/06/22 15:52	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Sample: HGWA-2 **Lab ID: 92618785002** Collected: 08/02/22 12:28 Received: 08/04/22 12:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.119 ± 0.196 (0.434) C:83% T:NA**	pCi/L	09/06/22 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.742 ± 0.357 (0.601) C:80% T:88%**	pCi/L	08/29/22 11:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.861 ± 0.553 (1.04)**	pCi/L	09/06/22 15:52	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Sample: HGWA-3 **Lab ID: 92618785003** Collected: 08/02/22 14:08 Received: 08/04/22 12:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**-0.0471 ± 0.162 (0.494) C:87% T:NA**	pCi/L	09/06/22 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.400 ± 0.346 (0.699) C:78% T:87%**	pCi/L	08/29/22 11:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.400 ± 0.508 (1.19)**	pCi/L	09/06/22 15:52	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Sample: HGWA-43D **Lab ID: 92618785004** Collected: 08/02/22 09:33 Received: 08/04/22 12:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.297 ± 0.256 (0.460) C:86% T:NA**	pCi/L	09/06/22 08:55	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.365 ± 0.318 (0.636) C:82% T:87%**	pCi/L	08/29/22 12:28	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.662 ± 0.574 (1.10)**	pCi/L	09/06/22 15:52	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Sample: HGWA-44D **Lab ID: 92618785005** Collected: 08/02/22 10:42 Received: 08/04/22 12:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0642 ± 0.408 (1.04) C:45% T:NA**	pCi/L	09/06/22 08:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.888 ± 0.367 (0.564) C:80% T:90%**	pCi/L	08/29/22 11:34	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.952 ± 0.775 (1.60)**	pCi/L	09/06/22 15:52	7440-14-4	

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

QC Batch: 525510
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92618785001, 92618785002, 92618785003, 92618785004, 92618785005

METHOD BLANK: 2549236 Matrix: Water
Associated Lab Samples: 92618785001, 92618785002, 92618785003, 92618785004, 92618785005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.171 ± 0.214 (0.439) C:89% T:NA	pCi/L	09/06/22 09:26	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

QC Batch: 525947
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92618785001, 92618785002, 92618785003, 92618785004, 92618785005

METHOD BLANK: 2551553 Matrix: Water
Associated Lab Samples: 92618785001, 92618785002, 92618785003, 92618785004, 92618785005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.521 ± 0.305 (0.543) C:83% T:91%	pCi/L	08/29/22 12:28	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

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

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.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND POOLED UPGRADIENT RAD
Pace Project No.: 92618785

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92618785001	**HGWA-1**	EPA 9315	525510		
92618785002	**HGWA-2**	EPA 9315	525510		
92618785003	**HGWA-3**	EPA 9315	525510		
92618785004	**HGWA-43D**	EPA 9315	525510		
92618785005	**HGWA-44D**	EPA 9315	525510		
92618785001	**HGWA-1**	EPA 9320	525947		
92618785002	**HGWA-2**	EPA 9320	525947		
92618785003	**HGWA-3**	EPA 9320	525947		
92618785004	**HGWA-43D**	EPA 9320	525947		
92618785005	**HGWA-44D**	EPA 9320	525947		
92618785001	**HGWA-1**	Total Radium Calculation	530889		
92618785002	**HGWA-2**	Total Radium Calculation	530889		
92618785003	**HGWA-3**	Total Radium Calculation	530889		
92618785004	**HGWA-43D**	Total Radium Calculation	530889		
92618785005	**HGWA-44D**	Total Radium Calculation	530889		

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

Effective Date: 05/12/2022

Laboratory receiving samples:

~~Asheville~~ ☐ ~~Eden~~ ☐ ~~Greenwood~~ ☐ ~~Huntersville~~ ☐ ~~Raleigh~~ ☐ ~~Mechanicsville~~ ☐ ~~Atlanta~~ ☑

Sample Condition Upon Receipt

Client Name: GA Power

Project #

WO# : 92618785

92618785

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 8/4/22 CMG

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 230 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.3 **Correction Factor:** Add/Subtract (°C) 0.0

Cooler Temp Corrected (°C): 3.3

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, ~~including Hawaii and Puerto Rico~~)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☑ No	☐ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace	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#: 92618785**

PM: NMG Due Date: 08/25/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG9A-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9Y-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (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)	BP	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																		2				
2		2	1			1	1																		2				
3		2	1			1	1																		2				
4		2	1			1	1																		2				
5		2	1			1	1																		2				
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond Pooled Upgradient
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER ~~CCR~~

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE (use valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App III and IV metals	RAD 226/228	TDS	Major Ions	Alkalinity, Bicarbonate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
	Requested Analysis Filtered (Y/N)																		N	N	N	N	N	N		
1	HGWA-1	WG	G	8/2/2022	09:44	TK 8/2/2022			19	7	3	3					1		X	X	X	X	X	X	N	pH = 7.03
2	HGWA-2	WG	G	8/2/2022	12:28				20	7	3	3					1		X	X	X	X	X	X	N	pH = 4.57
3	HGWA-3	WG	G	8/2/2022	14:06				20	7	3	3					1		X	X	X	X	X	X	N	pH = 7.02
4	HGWA-43D	WG	G	8/2/2022	09:33				18	7	3	3					1		X	X	X	X	X	X	N	pH = 7.15
5	HGWA-44D	WG	G	8/2/2022	10:42				19	7	3	3					1		X	X	X	X	X	X	N	pH = 7.90
6																										
7																										
8																										
9																										
10																										
11																										TK 8/2/2022
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Vlassler	8/4/2022	1230	Ryan Williams / Pace	8/4/2022	1230	
	Ryan Williams / Pace	8/4/2022	1515		8/4/22	1515	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Vlassler, Anthony Stewart, Jordan Orndorff

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/2/2022

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

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

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

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

September 22, 2022

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between August 04, 2022 and August 05, 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'Oleo

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

Enclosures

cc: Noelia Gangi, Georgia Power
Ben Hodges, Georgia Power
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Laura Midkiff, Georgia Power
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Michael Smilley, Georgia Power
Anthony Szwast, Geosyntec
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

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

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

SAMPLE SUMMARY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92618780001	**HGWA-45D**	Water	08/02/22 12:30	08/04/22 12:30
92618780002	**HGWA-122**	Water	08/02/22 13:57	08/04/22 12:30
92618780003	**HGWC-120**	Water	08/04/22 15:55	08/05/22 14:15
92618780004	**HGWC-121A**	Water	08/04/22 13:16	08/05/22 14:15
92618780005	**HGWC-124**	Water	08/04/22 11:19	08/05/22 14:15
92618780006	**HGWC-125**	Water	08/04/22 15:40	08/05/22 14:15
92618780007	**HGWC-126**	Water	08/04/22 16:46	08/05/22 14:15
92618780008	**DUP-3**	Water	08/04/22 00:00	08/05/22 14:15
92618780009	**EB-3**	Water	08/04/22 17:25	08/05/22 14:15
92618780010	**FB-3**	Water	08/04/22 17:05	08/05/22 14:15

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

SAMPLE ANALYTE COUNT

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92618780001	**HGWA-45D**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780002	**HGWA-122**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780003	**HGWC-120**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780004	**HGWC-121A**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780005	**HGWC-124**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780006	**HGWC-125**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780007	**HGWC-126**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780008	**DUP-3**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780009	**EB-3**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92618780010	**FB-3**	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

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

SUMMARY OF DETECTION

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618780001	**HGWA-45D**					
EPA 9315	Radium-226	0.292 ± 0.176 (0.262) C:95% T:NA	pCi/L		09/05/22 08:49	
EPA 9320	Radium-228	0.217 ± 0.434 (0.958) C:68% T:89%	pCi/L		08/26/22 18:43	
Total Radium Calculation	Total Radium	0.509 ± 0.610 (1.22)	pCi/L		09/06/22 15:25	
92618780002	**HGWA-122**					
EPA 9315	Radium-226	0.142 ± 0.145 (0.280) C:93% T:NA	pCi/L		09/05/22 08:49	
EPA 9320	Radium-228	0.431 ± 0.473 (0.982) C:68% T:89%	pCi/L		08/26/22 18:43	
Total Radium Calculation	Total Radium	0.573 ± 0.618 (1.26)	pCi/L		09/06/22 15:25	
92618780003	**HGWC-120**					
EPA 9315	Radium-226	0.0821 ± 0.174 (0.407) C:93% T:NA	pCi/L		09/07/22 08:43	
EPA 9320	Radium-228	0.605 ± 0.309 (0.519) C:74% T:95%	pCi/L		08/30/22 12:40	
Total Radium Calculation	Total Radium	0.687 ± 0.483 (0.926)	pCi/L		09/08/22 18:24	
92618780004	**HGWC-121A**					
EPA 9315	Radium-226	0.104 ± 0.135 (0.269) C:88% T:NA	pCi/L		09/07/22 08:28	
EPA 9320	Radium-228	1.06 ± 0.548 (0.978) C:81% T:93%	pCi/L		08/30/22 15:47	
Total Radium Calculation	Total Radium	1.16 ± 0.683 (1.25)	pCi/L		09/08/22 18:24	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618780005	**HGWC-124**					
EPA 9315	Radium-226	0.0130 ± 0.120 (0.326) C:92% T:NA	pCi/L		09/07/22 11:06	
EPA 9320	Radium-228	0.147 ± 0.431 (0.965) C:74% T:101%	pCi/L		08/30/22 15:48	
Total Radium Calculation	Total Radium	0.160 ± 0.551 (1.29)	pCi/L		09/08/22 18:24	
92618780006	**HGWC-125**					
EPA 9315	Radium-226	0.213 ± 0.188 (0.344) C:93% T:NA	pCi/L		09/07/22 11:06	
EPA 9320	Radium-228	0.758 ± 0.527 (1.03) C:77% T:94%	pCi/L		08/30/22 15:48	
Total Radium Calculation	Total Radium	0.971 ± 0.715 (1.37)	pCi/L		09/08/22 18:24	
92618780007	**HGWC-126**					
EPA 9315	Radium-226	0.703 ± 0.305 (0.357) C:87% T:NA	pCi/L		09/07/22 11:06	
EPA 9320	Radium-228	0.638 ± 0.620 (1.28) C:73% T:83%	pCi/L		08/30/22 15:48	
Total Radium Calculation	Total Radium	1.34 ± 0.925 (1.64)	pCi/L		09/08/22 18:24	
92618780008	**DUP-3**					
EPA 9315	Radium-226	0.0507 ± 0.154 (0.381) C:81% T:NA	pCi/L		09/07/22 11:06	
EPA 9320	Radium-228	0.152 ± 0.491 (1.10) C:71% T:91%	pCi/L		08/30/22 15:48	
Total Radium Calculation	Total Radium	0.203 ± 0.645 (1.48)	pCi/L		09/08/22 18:24	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92618780009	**EB-3**					
EPA 9315	Radium-226	-0.0276 ± 0.0971 (0.312) C:92% T:NA	pCi/L		09/07/22 11:06	
EPA 9320	Radium-228	0.227 ± 0.435 (0.955) C:78% T:96%	pCi/L		08/30/22 15:48	
Total Radium Calculation	Total Radium	0.227 ± 0.532 (1.27)	pCi/L		09/08/22 18:24	
92618780010	**FB-3**					
EPA 9315	Radium-226	-0.0584 ± 0.113 (0.370) C:89% T:NA	pCi/L		09/07/22 11:06	
EPA 9320	Radium-228	0.754 ± 0.525 (1.01) C:76% T:86%	pCi/L		08/30/22 15:48	
Total Radium Calculation	Total Radium	0.754 ± 0.638 (1.38)	pCi/L		09/08/22 18:24	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: HGWA-45D **Lab ID: 92618780001** Collected: 08/02/22 12:30 Received: 08/04/22 12:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.292 ± 0.176 (0.262) C:95% T:NA**	pCi/L	09/05/22 08:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.217 ± 0.434 (0.958) C:68% T:89%**	pCi/L	08/26/22 18:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.509 ± 0.610 (1.22)**	pCi/L	09/06/22 15:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: HGWA-122 **Lab ID: 92618780002** Collected: 08/02/22 13:57 Received: 08/04/22 12:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.142 ± 0.145 (0.280) C:93% T:NA**	pCi/L	09/05/22 08:49	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.431 ± 0.473 (0.982) C:68% T:89%**	pCi/L	08/26/22 18:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.573 ± 0.618 (1.26)**	pCi/L	09/06/22 15:25	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: HGWC-120 **Lab ID: 92618780003** Collected: 08/04/22 15:55 Received: 08/05/22 14:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0821 ± 0.174 (0.407) C:93% T:NA**	pCi/L	09/07/22 08:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.605 ± 0.309 (0.519) C:74% T:95%**	pCi/L	08/30/22 12:40	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.687 ± 0.483 (0.926)**	pCi/L	09/08/22 18:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: HGWC-121A **Lab ID: 92618780004** Collected: 08/04/22 13:16 Received: 08/05/22 14:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.104 ± 0.135 (0.269) C:88% T:NA**	pCi/L	09/07/22 08:28	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.06 ± 0.548 (0.978) C:81% T:93%**	pCi/L	08/30/22 15:47	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.16 ± 0.683 (1.25)**	pCi/L	09/08/22 18:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: HGWC-124 **Lab ID: 92618780005** Collected: 08/04/22 11:19 Received: 08/05/22 14:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0130 ± 0.120 (0.326) C:92% T:NA**	pCi/L	09/07/22 11:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.147 ± 0.431 (0.965) C:74% T:101%**	pCi/L	08/30/22 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.160 ± 0.551 (1.29)**	pCi/L	09/08/22 18:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: HGWC-125 **Lab ID: 92618780006** Collected: 08/04/22 15:40 Received: 08/05/22 14:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.213 ± 0.188 (0.344) C:93% T:NA**	pCi/L	09/07/22 11:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.758 ± 0.527 (1.03) C:77% T:94%**	pCi/L	08/30/22 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.971 ± 0.715 (1.37)**	pCi/L	09/08/22 18:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: HGWC-126 **Lab ID: 92618780007** Collected: 08/04/22 16:46 Received: 08/05/22 14:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.703 ± 0.305 (0.357) C:87% T:NA**	pCi/L	09/07/22 11:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.638 ± 0.620 (1.28) C:73% T:83%**	pCi/L	08/30/22 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.34 ± 0.925 (1.64)**	pCi/L	09/08/22 18:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: DUP-3 **Lab ID: 92618780008** Collected: 08/04/22 00:00 Received: 08/05/22 14:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0507 ± 0.154 (0.381) C:81% T:NA**	pCi/L	09/07/22 11:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.152 ± 0.491 (1.10) C:71% T:91%**	pCi/L	08/30/22 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.203 ± 0.645 (1.48)**	pCi/L	09/08/22 18:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: EB-3 **Lab ID: 92618780009** Collected: 08/04/22 17:25 Received: 08/05/22 14:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**-0.0276 ± 0.0971 (0.312) C:92% T:NA**	pCi/L	09/07/22 11:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.227 ± 0.435 (0.955) C:78% T:96%**	pCi/L	08/30/22 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.227 ± 0.532 (1.27)**	pCi/L	09/08/22 18:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Sample: FB-3 **Lab ID: 92618780010** Collected: 08/04/22 17:05 Received: 08/05/22 14:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**-0.0584 ± 0.113 (0.370) C:89% T:NA**	pCi/L	09/07/22 11:06	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.754 ± 0.525 (1.01) C:76% T:86%**	pCi/L	08/30/22 15:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.754 ± 0.638 (1.38)**	pCi/L	09/08/22 18:24	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

QC Batch: 525976
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92618780003, 92618780004, 92618780005, 92618780006, 92618780007, 92618780008, 92618780009, 92618780010

METHOD BLANK: 2551589 Matrix: Water
Associated Lab Samples: 92618780003, 92618780004, 92618780005, 92618780006, 92618780007, 92618780008, 92618780009, 92618780010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.426 ± 0.331 (0.647) C:75% T:92%	pCi/L	08/30/22 16:38	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

QC Batch: 525944
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92618780001, 92618780002

METHOD BLANK: 2551549 Matrix: Water
Associated Lab Samples: 92618780001, 92618780002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.832 ± 0.466 (0.842) C:68% T:92%	pCi/L	08/26/22 17:08	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

QC Batch: 525508
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92618780001, 92618780002

METHOD BLANK: 2549229 Matrix: Water
Associated Lab Samples: 92618780001, 92618780002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00507 ± 0.115 (0.309) C:93% T:NA	pCi/L	09/05/22 08:49	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

QC Batch: 525513
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92618780003, 92618780004, 92618780005, 92618780006, 92618780007, 92618780008, 92618780009, 92618780010

METHOD BLANK: 2549243 Matrix: Water
Associated Lab Samples: 92618780003, 92618780004, 92618780005, 92618780006, 92618780007, 92618780008, 92618780009, 92618780010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0698 ± 0.211 (0.509) C:93% T:NA	pCi/L	09/07/22 08:49	

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

REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALIFIERS

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

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

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.

Pace Analytical Services, LLC
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(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: HAMMOND AP-3 RAD
Pace Project No.: 92618780

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92618780001	**HGWA-45D**	EPA 9315	525508		
92618780002	**HGWA-122**	EPA 9315	525508		
92618780003	**HGWC-120**	EPA 9315	525513		
92618780004	**HGWC-121A**	EPA 9315	525513		
92618780005	**HGWC-124**	EPA 9315	525513		
92618780006	**HGWC-125**	EPA 9315	525513		
92618780007	**HGWC-126**	EPA 9315	525513		
92618780008	**DUP-3**	EPA 9315	525513		
92618780009	**EB-3**	EPA 9315	525513		
92618780010	**FB-3**	EPA 9315	525513		
92618780001	**HGWA-45D**	EPA 9320	525944		
92618780002	**HGWA-122**	EPA 9320	525944		
92618780003	**HGWC-120**	EPA 9320	525976		
92618780004	**HGWC-121A**	EPA 9320	525976		
92618780005	**HGWC-124**	EPA 9320	525976		
92618780006	**HGWC-125**	EPA 9320	525976		
92618780007	**HGWC-126**	EPA 9320	525976		
92618780008	**DUP-3**	EPA 9320	525976		
92618780009	**EB-3**	EPA 9320	525976		
92618780010	**FB-3**	EPA 9320	525976		
92618780001	**HGWA-45D**	Total Radium Calculation	530877		
92618780002	**HGWA-122**	Total Radium Calculation	530877		
92618780003	**HGWC-120**	Total Radium Calculation	531569		
92618780004	**HGWC-121A**	Total Radium Calculation	531569		
92618780005	**HGWC-124**	Total Radium Calculation	531569		
92618780006	**HGWC-125**	Total Radium Calculation	531569		
92618780007	**HGWC-126**	Total Radium Calculation	531569		
92618780008	**DUP-3**	Total Radium Calculation	531569		
92618780009	**EB-3**	Total Radium Calculation	531569		
92618780010	**FB-3**	Total Radium Calculation	531569		

Pace

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

Effective Date: 05/12/2022

Laboratory receiving samples:

~~Asheville~~ ☐ ~~Eden~~ ☐ ~~Greenwood~~ ☐ ~~Huntersville~~ ☐ ~~Raleigh~~ ☐ ~~Mechanicsville~~ ☐ ~~Atlanta~~ ☑

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO# : 92618780

92618780

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 8/4/23 CAW

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☑ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 3.3 **Correction Factor:** Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 3.3

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

~~*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#: 92618780

PM: NMG Due Date: 08/25/22

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG9A-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9M-40 mL VOA H3PO4 (N/A)	DG9S-40 mL VOA H2SO4 (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																	2				
2		2	1			1	1																	2				
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A
Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B
Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-3
Project Number:	

Section C
Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER ~~CCR~~

Site Location STATE: GA

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

Requested Analysis Filtered (Y/N): N N N N N N

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	TIME	COMPOSITE END/GRAB DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Major Ions	Alkalinity, Bicarbonate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HGWA-45D	WG	G	8/2/2022	12:30	TK 8/2/2022		21	7	3		3					1		X	X	X	X	X	X	N	pH = 7.39
2	HGWA-122	WG	G	8/2/2022	13:57			21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.67
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										TK 8/2/2022
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Kessler / Geo	8/4/2022	1230	Ryan Williams / Pace	8/4/2022	1230	
	Ryan William / Pace	8/4/22	1515	Charles Hurley	8/4/22	1515	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Kessler, Tristan Orndorff

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/2/2022

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

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

Pace	DC#_Title: ENV-FRM-HUN1-0083 v01_Sample Condition Upon Receipt
	Effective Date: 05/12/2022

Laboratory receiving samples:

~~Asheville~~ ☐ ~~Eden~~ ☐ ~~Greenwood~~ ☐ ~~Huntersville~~ ☐ ~~Raleigh~~ ☐ ~~T~~

WO#: 92618780

PM: NMG Due Date: 08/19/22

CLIENT: GA-GA Power

Sample Condition Upon Receipt

Client Name: GA Power Project

Courier: ☐ Commercial ☐ FedEx ☑ Pace ☐ UPS ☐ USPS ☐ Other: ☐ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 8/5/22 CDH

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

Biological Tissue Frozen? ☐ Yes ☐ No ☐ N/A

Thermometer: ☑ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.8 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.8

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

WO#: 92618780

PM: NMG Due Date: 08/19/22

CLIENT: GA-GA Power

~~*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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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 HCl (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 H2SO4 (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)	BP3N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		2	1			1	1																		2				
2		2	1			1	1																		2				
3		2	1			1	1																		2				
4		2	1			1	1																		2				
5		2	1			1	1																		2				
6		2	1			1	1																		2				
7		2	1			1	1																		2				
8		2	1			1	1																		2				
9		2	1			1	1																		2				
10		2	1			1	1																		2				
11																									2				
12																													

15 PTN

PJH 8/5/22

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-3
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Major Ions	Alkalinity, Bicarbonate	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Requested Analysis Filtered (Y/N)	N	N	N	N	N	N		
1	HGWC-120	WG	G	8/4/2022	15:55	TK 8/4/2022		21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.93
2	HGWC-121A	WG	G	8/4/2022	13:16			21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.80
3	HGWC-124	WG	G	8/4/2022	11:19			20	7	3		3					1		X	X	X	X	X	X	N	pH = 7.15
4	HGWC-125	WG	G	8/4/2022	15:40			21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.09
5	HGWC-126	WG	G	8/4/2022	16:48			21	7	3		3					1		X	X	X	X	X	X	N	pH = 6.99
6	DUP-3	WG	G	8/4/2022	00:00			21	7	3		3					1		X	X	X	X	X	X	N	N/A
7	EB-3	WG	G	8/4/2022	17:25			21	7	3		3					1		X	X	X	X	X	X	N	N/A
8	FB-3	WG	G	8/4/2022	17:05			21	7	3		3					1		X	X	X	X	X	X	N	N/A
9																										Last sample
10																										
11						TK 8/4/2022																				
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Thomas Kessler / Geo	8/5/2022	850	Anthony Ewest / Geosyntec	8/5/2022	1350	
	Anthony Ewest / Geosyntec	8/5/2022	1415	Ryan Williams / Pace	8/5/2022	1415	
	Ryan Williams / Pace	8/5/2022	1625	[signature]	8/5/22	1625	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Kessler, Anthony Ewest, Ryan Williams

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 8/4/2022

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

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

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

January 2023

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

May 05, 2023

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between January 24, 2023 and January 26, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Noelia Gangi, Georgia Power
Ben Hodges, Georgia Power-CCR
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Laura Midkiff, Georgia Power
Michael Smilley, Georgia Power
Tina Sullivan, ERM
Anthony Szwast, Geosyntec

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Pace Analytical Services Charlotte
South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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

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

SAMPLE SUMMARY

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92648446001	**HAM-HGWA-3**	Water	01/23/23 16:49	01/24/23 12:38
92648446002	**HAM-HGWA-2**	Water	01/24/23 09:35	01/26/23 11:15
92648446003	**HAM-HGWA-43D**	Water	01/24/23 10:55	01/26/23 11:15
92648446004	**HAM-HGWA-44D**	Water	01/24/23 10:57	01/26/23 11:15
92648446005	**HAM-HGWA-1**	Water	01/24/23 09:35	01/26/23 11:15

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

SAMPLE ANALYTE COUNT

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92648446001	**HAM-HGWA-3**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92648446002	**HAM-HGWA-2**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92648446003	**HAM-HGWA-43D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	JCM	3
92648446004	**HAM-HGWA-44D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92648446005	**HAM-HGWA-1**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	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

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92648446001	**HAM-HGWA-3**					
	Performed by	Customer			02/15/23 10:56	
	pH	7.32	Std. Units		02/15/23 10:56	
EPA 6010D	Calcium	85.0	mg/L	1.0	01/30/23 23:50	M1
EPA 6020B	Barium	0.13	mg/L	0.0050	02/02/23 18:47	
EPA 6020B	Boron	0.012J	mg/L	0.040	02/02/23 18:47	
EPA 6020B	Lithium	0.0030J	mg/L	0.030	02/02/23 18:47	
SM 2540C-2015	Total Dissolved Solids	293	mg/L	25.0	01/27/23 14:04	
EPA 300.0 Rev 2.1 1993	Chloride	5.6	mg/L	1.0	01/25/23 23:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.061J	mg/L	0.10	01/25/23 23:05	
EPA 300.0 Rev 2.1 1993	Sulfate	39.5	mg/L	1.0	01/25/23 23:05	
92648446002	**HAM-HGWA-2**					
	Performed by	Customer			02/15/23 10:56	
	pH	5.22	Std. Units		02/15/23 10:56	
EPA 6010D	Calcium	29.4	mg/L	1.0	02/02/23 21:19	
EPA 6020B	Barium	0.088	mg/L	0.0050	02/01/23 18:48	
EPA 6020B	Beryllium	0.00016J	mg/L	0.00050	02/01/23 18:48	
EPA 6020B	Boron	0.046	mg/L	0.040	02/01/23 18:48	
EPA 6020B	Cadmium	0.00021J	mg/L	0.00050	02/01/23 18:48	
EPA 6020B	Cobalt	0.024	mg/L	0.0050	02/01/23 18:48	
EPA 6020B	Lithium	0.0014J	mg/L	0.030	02/01/23 18:48	
SM 2540C-2015	Total Dissolved Solids	164	mg/L	25.0	01/27/23 14:08	
EPA 300.0 Rev 2.1 1993	Chloride	7.1	mg/L	1.0	01/29/23 17:10	
EPA 300.0 Rev 2.1 1993	Fluoride	0.053J	mg/L	0.10	01/29/23 17:10	
EPA 300.0 Rev 2.1 1993	Sulfate	79.7	mg/L	1.0	01/29/23 17:10	
92648446003	**HAM-HGWA-43D**					
	Performed by	Customer			02/15/23 10:57	
	pH	7.56	Std. Units		02/15/23 10:57	
EPA 6010D	Calcium	56.6	mg/L	1.0	02/02/23 21:33	
EPA 6020B	Barium	0.28	mg/L	0.0050	02/01/23 18:54	
EPA 6020B	Boron	0.037J	mg/L	0.040	02/01/23 18:54	
EPA 6020B	Lithium	0.0020J	mg/L	0.030	02/01/23 18:54	
EPA 6020B	Molybdenum	0.0027J	mg/L	0.010	02/01/23 18:54	
SM 2540C-2015	Total Dissolved Solids	271	mg/L	25.0	01/27/23 14:08	
EPA 300.0 Rev 2.1 1993	Chloride	4.3	mg/L	1.0	01/29/23 17:34	
EPA 300.0 Rev 2.1 1993	Fluoride	0.23	mg/L	0.10	01/29/23 17:34	
EPA 300.0 Rev 2.1 1993	Sulfate	34.7	mg/L	1.0	01/29/23 17:34	
92648446004	**HAM-HGWA-44D**					
	Performed by	Customer			02/15/23 10:57	
	pH	8.22	Std. Units		02/15/23 10:57	
EPA 6010D	Calcium	13.2	mg/L	1.0	02/02/23 21:38	
EPA 6020B	Arsenic	0.0027J	mg/L	0.0050	02/01/23 19:00	
EPA 6020B	Barium	0.18	mg/L	0.0050	02/01/23 19:00	
EPA 6020B	Boron	0.44	mg/L	0.040	02/01/23 19:00	
EPA 6020B	Lithium	0.064	mg/L	0.030	02/01/23 19:00	
EPA 6020B	Molybdenum	0.0026J	mg/L	0.010	02/01/23 19:00	
SM 2540C-2015	Total Dissolved Solids	363	mg/L	25.0	01/27/23 14:08	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92648446004	**HAM-HGWA-44D**					
EPA 300.0 Rev 2.1 1993	Chloride	24.9	mg/L	1.0	01/31/23 01:07	
EPA 300.0 Rev 2.1 1993	Fluoride	1.3	mg/L	0.10	01/31/23 01:07	
EPA 300.0 Rev 2.1 1993	Sulfate	10.1	mg/L	1.0	01/31/23 01:07	
92648446005	**HAM-HGWA-1**					
	Performed by	Customer			02/15/23 10:58	
	pH	6.76	Std. Units		02/15/23 10:58	
EPA 6010D	Calcium	117	mg/L	1.0	02/02/23 21:43	
EPA 6020B	Barium	0.033	mg/L	0.0050	02/01/23 19:06	
EPA 6020B	Boron	0.015J	mg/L	0.040	02/01/23 19:06	
EPA 6020B	Lithium	0.00092J	mg/L	0.030	02/01/23 19:06	
SM 2540C-2015	Total Dissolved Solids	369	mg/L	25.0	01/27/23 14:08	
EPA 300.0 Rev 2.1 1993	Chloride	9.0	mg/L	1.0	01/31/23 01:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.089J	mg/L	0.10	01/31/23 01:33	
EPA 300.0 Rev 2.1 1993	Sulfate	48.3	mg/L	1.0	01/31/23 01:33	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Sample: HAM-HGWA-3 **Lab ID: 92648446001** Collected: 01/23/23 16:49 Received: 01/24/23 12:38 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 10:56		
pH	**7.32**	Std. Units			1		02/15/23 10:56		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**85.0**	mg/L	1.0	0.12	1	01/30/23 15:10	01/30/23 23:50	7440-70-2	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	01/30/23 12:30	02/02/23 18:47	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	01/30/23 12:30	02/02/23 18:47	7440-38-2	
Barium	**0.13**	mg/L	0.0050	0.00067	1	01/30/23 12:30	02/02/23 18:47	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	01/30/23 12:30	02/02/23 18:47	7440-41-7	
Boron	**0.012J**	mg/L	0.040	0.0086	1	01/30/23 12:30	02/02/23 18:47	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	01/30/23 12:30	02/02/23 18:47	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	01/30/23 12:30	02/02/23 18:47	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	01/30/23 12:30	02/02/23 18:47	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	01/30/23 12:30	02/02/23 18:47	7439-92-1	
Lithium	**0.0030J**	mg/L	0.030	0.00073	1	01/30/23 12:30	02/02/23 18:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	01/30/23 12:30	02/02/23 18:47	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	01/30/23 12:30	02/02/23 18:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	01/30/23 12:30	02/02/23 18:47	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/01/23 08:00	02/01/23 13:37	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**293**	mg/L	25.0	25.0	1		01/27/23 14:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**5.6**	mg/L	1.0	0.60	1		01/25/23 23:05	16887-00-6	
Fluoride	**0.061J**	mg/L	0.10	0.050	1		01/25/23 23:05	16984-48-8	
Sulfate	**39.5**	mg/L	1.0	0.50	1		01/25/23 23:05	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Sample: HAM-HGWA-2 **Lab ID: 92648446002** Collected: 01/24/23 09:35 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 10:56		
pH	**5.22**	Std. Units			1		02/15/23 10:56		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**29.4**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 21:19	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 10:17	02/01/23 18:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 10:17	02/01/23 18:48	7440-38-2	
Barium	**0.088**	mg/L	0.0050	0.00067	1	02/01/23 10:17	02/01/23 18:48	7440-39-3	
Beryllium	**0.00016J**	mg/L	0.00050	0.000054	1	02/01/23 10:17	02/01/23 18:48	7440-41-7	
Boron	**0.046**	mg/L	0.040	0.0086	1	02/01/23 10:17	02/01/23 18:48	7440-42-8	
Cadmium	**0.00021J**	mg/L	0.00050	0.00011	1	02/01/23 10:17	02/01/23 18:48	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 10:17	02/01/23 18:48	7440-47-3	
Cobalt	**0.024**	mg/L	0.0050	0.00039	1	02/01/23 10:17	02/01/23 18:48	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 10:17	02/01/23 18:48	7439-92-1	
Lithium	**0.0014J**	mg/L	0.030	0.00073	1	02/01/23 10:17	02/01/23 18:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/23 10:17	02/01/23 18:48	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 10:17	02/01/23 18:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 10:17	02/01/23 18:48	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/01/23 08:00	02/01/23 13:40	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**164**	mg/L	25.0	25.0	1		01/27/23 14:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**7.1**	mg/L	1.0	0.60	1		01/29/23 17:10	16887-00-6	
Fluoride	**0.053J**	mg/L	0.10	0.050	1		01/29/23 17:10	16984-48-8	
Sulfate	**79.7**	mg/L	1.0	0.50	1		01/29/23 17:10	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Sample: HAM-HGWA-43D **Lab ID: 92648446003** Collected: 01/24/23 10:55 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 10:57		
pH	**7.56**	Std. Units			1		02/15/23 10:57		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**56.6**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 21:33	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 10:17	02/01/23 18:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 10:17	02/01/23 18:54	7440-38-2	
Barium	**0.28**	mg/L	0.0050	0.00067	1	02/01/23 10:17	02/01/23 18:54	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 10:17	02/01/23 18:54	7440-41-7	
Boron	**0.037J**	mg/L	0.040	0.0086	1	02/01/23 10:17	02/01/23 18:54	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 10:17	02/01/23 18:54	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 10:17	02/01/23 18:54	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 10:17	02/01/23 18:54	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 10:17	02/01/23 18:54	7439-92-1	
Lithium	**0.0020J**	mg/L	0.030	0.00073	1	02/01/23 10:17	02/01/23 18:54	7439-93-2	
Molybdenum	**0.0027J**	mg/L	0.010	0.00074	1	02/01/23 10:17	02/01/23 18:54	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 10:17	02/01/23 18:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 10:17	02/01/23 18:54	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/01/23 08:00	02/01/23 13:42	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**271**	mg/L	25.0	25.0	1		01/27/23 14:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.3**	mg/L	1.0	0.60	1		01/29/23 17:34	16887-00-6	
Fluoride	**0.23**	mg/L	0.10	0.050	1		01/29/23 17:34	16984-48-8	
Sulfate	**34.7**	mg/L	1.0	0.50	1		01/29/23 17:34	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Sample: HAM-HGWA-44D **Lab ID: 92648446004** Collected: 01/24/23 10:57 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 10:57		
pH	**8.22**	Std. Units			1		02/15/23 10:57		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**13.2**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 21:38	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 10:17	02/01/23 19:00	7440-36-0	
Arsenic	**0.0027J**	mg/L	0.0050	0.0022	1	02/01/23 10:17	02/01/23 19:00	7440-38-2	
Barium	**0.18**	mg/L	0.0050	0.00067	1	02/01/23 10:17	02/01/23 19:00	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 10:17	02/01/23 19:00	7440-41-7	
Boron	**0.44**	mg/L	0.040	0.0086	1	02/01/23 10:17	02/01/23 19:00	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 10:17	02/01/23 19:00	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 10:17	02/01/23 19:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 10:17	02/01/23 19:00	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 10:17	02/01/23 19:00	7439-92-1	
Lithium	**0.064**	mg/L	0.030	0.00073	1	02/01/23 10:17	02/01/23 19:00	7439-93-2	
Molybdenum	**0.0026J**	mg/L	0.010	0.00074	1	02/01/23 10:17	02/01/23 19:00	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 10:17	02/01/23 19:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 10:17	02/01/23 19:00	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/01/23 08:00	02/01/23 13:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**363**	mg/L	25.0	25.0	1		01/27/23 14:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**24.9**	mg/L	1.0	0.60	1		01/31/23 01:07	16887-00-6	
Fluoride	**1.3**	mg/L	0.10	0.050	1		01/31/23 01:07	16984-48-8	
Sulfate	**10.1**	mg/L	1.0	0.50	1		01/31/23 01:07	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Sample: HAM-HGWA-1 **Lab ID: 92648446005** Collected: 01/24/23 09:35 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 10:58		
pH	**6.76**	Std. Units			1		02/15/23 10:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**117**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 21:43	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 10:17	02/01/23 19:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 10:17	02/01/23 19:06	7440-38-2	
Barium	**0.033**	mg/L	0.0050	0.00067	1	02/01/23 10:17	02/01/23 19:06	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 10:17	02/01/23 19:06	7440-41-7	
Boron	**0.015J**	mg/L	0.040	0.0086	1	02/01/23 10:17	02/01/23 19:06	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 10:17	02/01/23 19:06	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 10:17	02/01/23 19:06	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 10:17	02/01/23 19:06	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 10:17	02/01/23 19:06	7439-92-1	
Lithium	**0.00092J**	mg/L	0.030	0.00073	1	02/01/23 10:17	02/01/23 19:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/23 10:17	02/01/23 19:06	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 10:17	02/01/23 19:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 10:17	02/01/23 19:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/01/23 08:00	02/01/23 13:47	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**369**	mg/L	25.0	25.0	1		01/27/23 14:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**9.0**	mg/L	1.0	0.60	1		01/31/23 01:33	16887-00-6	
Fluoride	**0.089J**	mg/L	0.10	0.050	1		01/31/23 01:33	16984-48-8	
Sulfate	**48.3**	mg/L	1.0	0.50	1		01/31/23 01:33	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 752651
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92648446001

METHOD BLANK: 3910594 Matrix: Water
Associated Lab Samples: 92648446001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	01/30/23 23:40	

LABORATORY CONTROL SAMPLE: 3910595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.99J	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3910596 3910597

Parameter	Units	92648446001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	85.0	1	1	80.4	83.9	-467	-112	75-125	4	20	M1

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 752956
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92648446002, 92648446003, 92648446004, 92648446005

METHOD BLANK: 3912342 Matrix: Water
Associated Lab Samples: 92648446002, 92648446003, 92648446004, 92648446005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/02/23 20:40	

LABORATORY CONTROL SAMPLE: 3912343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3912344 3912345

Parameter	Units	92649037012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L		1	1	4.1	4.3	96	117	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 752599
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92648446001

METHOD BLANK: 3910295 Matrix: Water
Associated Lab Samples: 92648446001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/02/23 18:35	
Arsenic	mg/L	ND	0.0050	0.0022	02/02/23 18:35	
Barium	mg/L	ND	0.0050	0.00067	02/02/23 18:35	
Beryllium	mg/L	ND	0.00050	0.000054	02/02/23 18:35	
Boron	mg/L	ND	0.040	0.0086	02/02/23 18:35	
Cadmium	mg/L	ND	0.00050	0.00011	02/02/23 18:35	
Chromium	mg/L	ND	0.0050	0.0011	02/02/23 18:35	
Cobalt	mg/L	ND	0.0050	0.00039	02/02/23 18:35	
Lead	mg/L	ND	0.0010	0.00089	02/02/23 18:35	
Lithium	mg/L	ND	0.030	0.00073	02/02/23 18:35	
Molybdenum	mg/L	ND	0.010	0.00074	02/02/23 18:35	
Selenium	mg/L	ND	0.0050	0.0014	02/02/23 18:35	
Thallium	mg/L	ND	0.0010	0.00018	02/02/23 18:35	

LABORATORY CONTROL SAMPLE: 3910296

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.098	98	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.0	104	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3910297 3910298

Parameter	Units	92648446001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3910297 3910298

Parameter	Units	92648446001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.13	0.1	0.1	0.22	0.22	97	90	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.089	0.089	89	89	75-125	0	20	
Boron	mg/L	0.012J	1	1	0.92	0.93	91	92	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20	
Cobalt	mg/L	ND	0.1	0.1	0.098	0.097	98	97	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.097	0.095	97	95	75-125	2	20	
Lithium	mg/L	0.0030J	0.1	0.1	0.092	0.091	89	88	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	102	100	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 753097
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92648446002, 92648446003, 92648446004, 92648446005

METHOD BLANK: 3912787 Matrix: Water
Associated Lab Samples: 92648446002, 92648446003, 92648446004, 92648446005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/01/23 17:13	
Arsenic	mg/L	ND	0.0050	0.0022	02/01/23 17:13	
Barium	mg/L	ND	0.0050	0.00067	02/01/23 17:13	
Beryllium	mg/L	ND	0.00050	0.000054	02/01/23 17:13	
Boron	mg/L	ND	0.040	0.0086	02/01/23 17:13	
Cadmium	mg/L	ND	0.00050	0.00011	02/01/23 17:13	
Chromium	mg/L	ND	0.0050	0.0011	02/01/23 17:13	
Cobalt	mg/L	ND	0.0050	0.00039	02/01/23 17:13	
Lead	mg/L	ND	0.0010	0.00089	02/01/23 17:13	
Lithium	mg/L	ND	0.030	0.00073	02/01/23 17:13	
Molybdenum	mg/L	ND	0.010	0.00074	02/01/23 17:13	
Selenium	mg/L	ND	0.0050	0.0014	02/01/23 17:13	
Thallium	mg/L	ND	0.0010	0.00018	02/01/23 17:13	

LABORATORY CONTROL SAMPLE: 3912788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	
Lead	mg/L	0.1	0.10	103	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.10	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3912789 3912790

Parameter	Units	92649067001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	3.4 ug/L	0.1	0.1	0.11	0.11	105	102	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	100	99	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3912789 3912790

Parameter	Units	92649067001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	47.9 ug/L	0.1	0.1	0.15	0.15	104	99	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20	
Boron	mg/L	ND	1	1	1.0	1.0	103	102	75-125	1	20	
Cadmium	mg/L	1.2 ug/L	0.1	0.1	0.10	0.097	99	96	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	101	98	75-125	3	20	
Lead	mg/L	81.8 ug/L	0.1	0.1	0.19	0.18	105	101	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	103	101	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 752854
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92648446001, 92648446002, 92648446003, 92648446004, 92648446005

METHOD BLANK: 3911513 Matrix: Water
Associated Lab Samples: 92648446001, 92648446002, 92648446003, 92648446004, 92648446005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/01/23 12:44	

LABORATORY CONTROL SAMPLE: 3911514

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3911518 3911519

Parameter	Units	92648451002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0022	0.0022	88	88	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 752254 | 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: 92648446001, 92648446002, 92648446003, 92648446004, 92648446005

METHOD BLANK: 3908925 Matrix: Water
Associated Lab Samples: 92648446001, 92648446002, 92648446003, 92648446004, 92648446005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	01/27/23 14:00	

LABORATORY CONTROL SAMPLE: 3908926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	371	93	80-120	

SAMPLE DUPLICATE: 3908927

Parameter	Units	92648636001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	71.0		10	

SAMPLE DUPLICATE: 3908928

Parameter	Units	92649038017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	146	147	1	10	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 751618
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92648446001

METHOD BLANK: 3905644 Matrix: Water
Associated Lab Samples: 92648446001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/25/23 18:08	
Fluoride	mg/L	ND	0.10	0.050	01/25/23 18:08	
Sulfate	mg/L	ND	1.0	0.50	01/25/23 18:08	

LABORATORY CONTROL SAMPLE: 3905645

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.2	106	90-110	
Fluoride	mg/L	2.5	2.7	110	90-110	
Sulfate	mg/L	50	53.3	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3905646 3905647

Parameter	Units	92648208001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	8.7	50	50	57.0	59.0	97	100	90-110	3	10	
Fluoride	mg/L	0.47	2.5	2.5	2.9	3.0	98	102	90-110	3	10	
Sulfate	mg/L	3.9	50	50	52.2	54.1	97	100	90-110	4	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3905648 3905649

Parameter	Units	92648324002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	16.9	50	50	66.5	67.2	99	101	90-110	1	10	
Fluoride	mg/L	0.066J	2.5	2.5	2.6	2.6	101	101	90-110	0	10	
Sulfate	mg/L	19.0	50	50	69.4	69.8	101	102	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 752456
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92648446002, 92648446003

METHOD BLANK: 3909761 Matrix: Water
Associated Lab Samples: 92648446002, 92648446003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/29/23 05:16	
Fluoride	mg/L	ND	0.10	0.050	01/29/23 05:16	
Sulfate	mg/L	ND	1.0	0.50	01/29/23 05:16	

LABORATORY CONTROL SAMPLE: 3909762

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.6	103	90-110	
Sulfate	mg/L	50	50.7	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3909763 3909764

Parameter	Units	92649224020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	50.7	51.2	101	102	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	105	105	90-110	0	10	
Sulfate	mg/L	ND	50	50	50.3	50.7	101	101	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3909765 3909766

Parameter	Units	92649038010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.0	50	50	57.0	57.6	102	103	90-110	1	10	
Fluoride	mg/L	0.052J	2.5	2.5	2.6	2.6	100	102	90-110	1	10	
Sulfate	mg/L	228	50	50	269	270	83	84	90-110	0	10	M1

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

QC Batch: 752690
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92648446004, 92648446005

METHOD BLANK: 3910852 Matrix: Water
Associated Lab Samples: 92648446004, 92648446005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/30/23 22:32	
Fluoride	mg/L	ND	0.10	0.050	01/30/23 22:32	
Sulfate	mg/L	ND	1.0	0.50	01/30/23 22:32	

LABORATORY CONTROL SAMPLE: 3910853

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.6	99	90-110	
Fluoride	mg/L	2.5	2.6	104	90-110	
Sulfate	mg/L	50	49.7	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3910854 3910855

Parameter	Units	92648913001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.7	50	50	52.0	52.7	99	100	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	98	100	90-110	1	10	
Sulfate	mg/L	ND	50	50	48.5	49.4	97	99	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3910856 3910857

Parameter	Units	92649042009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	51.0	51.2	102	102	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	103	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	50.4	50.7	101	101	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

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

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

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond PooledUpgradient
Pace Project No.: 92648446

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92648446001	**HAM-HGWA-3**				
92648446002	**HAM-HGWA-2**				
92648446003	**HAM-HGWA-43D**				
92648446004	**HAM-HGWA-44D**				
92648446005	**HAM-HGWA-1**				
92648446001	**HAM-HGWA-3**	EPA 3010A	752651	EPA 6010D	752696
92648446002	**HAM-HGWA-2**	EPA 3010A	752956	EPA 6010D	753082
92648446003	**HAM-HGWA-43D**	EPA 3010A	752956	EPA 6010D	753082
92648446004	**HAM-HGWA-44D**	EPA 3010A	752956	EPA 6010D	753082
92648446005	**HAM-HGWA-1**	EPA 3010A	752956	EPA 6010D	753082
92648446001	**HAM-HGWA-3**	EPA 3005A	752599	EPA 6020B	752695
92648446002	**HAM-HGWA-2**	EPA 3005A	753097	EPA 6020B	753234
92648446003	**HAM-HGWA-43D**	EPA 3005A	753097	EPA 6020B	753234
92648446004	**HAM-HGWA-44D**	EPA 3005A	753097	EPA 6020B	753234
92648446005	**HAM-HGWA-1**	EPA 3005A	753097	EPA 6020B	753234
92648446001	**HAM-HGWA-3**	EPA 7470A	752854	EPA 7470A	753068
92648446002	**HAM-HGWA-2**	EPA 7470A	752854	EPA 7470A	753068
92648446003	**HAM-HGWA-43D**	EPA 7470A	752854	EPA 7470A	753068
92648446004	**HAM-HGWA-44D**	EPA 7470A	752854	EPA 7470A	753068
92648446005	**HAM-HGWA-1**	EPA 7470A	752854	EPA 7470A	753068
92648446001	**HAM-HGWA-3**	SM 2540C-2015	752254		
92648446002	**HAM-HGWA-2**	SM 2540C-2015	752254		
92648446003	**HAM-HGWA-43D**	SM 2540C-2015	752254		
92648446004	**HAM-HGWA-44D**	SM 2540C-2015	752254		
92648446005	**HAM-HGWA-1**	SM 2540C-2015	752254		
92648446001	**HAM-HGWA-3**	EPA 300.0 Rev 2.1 1993	751618		
92648446002	**HAM-HGWA-2**	EPA 300.0 Rev 2.1 1993	752456		
92648446003	**HAM-HGWA-43D**	EPA 300.0 Rev 2.1 1993	752456		
92648446004	**HAM-HGWA-44D**	EPA 300.0 Rev 2.1 1993	752690		
92648446005	**HAM-HGWA-1**	EPA 300.0 Rev 2.1 1993	752690		

Pace	DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt
	Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #:

WO# : 92648446

92648446

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 1/24/23 JH

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.4 **Correction Factor:** Add/Subtract (°C) 0.0

Cooler Temp Corrected (°C): 4.4

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt
	Effective Date: 11/14/2022

*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# : 92648446

PM: BV Due Date: 02/07/23

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			1																		1			
2																											
3																											
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12																											

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
	Task Code: HAM-CCR-ASSMT-2023S1
Purchase Order No.:	
Project Name:	Plant Hammond Pooled Upgradient
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Nicole D'Oleo
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N	N	N	N	N		92648446
1	HAM-HGWA-3	WG	G	1/23/2023	1649			17	5	2		3							X	X	X	X	N	pH = 7.32
2						TJ 1/23/2023																		
3																								
4																								
5																								
6																								
7						TJ 1/23/2023																			
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
HAM-CCR-ASSMT-2023S1	Thomas Kheder / Geosyntec	1/24/2023	[illegible]	Ryan Williams / Pace	1/24/2023	1040	
	Ryan Williams / Pace	1/24/2023	1238	[signature]	1/24/23	1238	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible] Connor Cain / Geosyntec Consultants, Inc

SIGNATURE of SAMPLER: CC DATE Signed (MM/DD/YY): 01/23/23

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

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

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

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mec ☐ ☐

WO# : 92648446
PM: BV Due Date: 02/07/23
CLIENT: GA-GA Power

Sample Condition Upon Receipt

Client Name: Georgia Power **Project #:**

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 1/26/23 JM

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.3 **Correction Factor:** Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.3

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WG/WQ				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY **Field Data Required?** ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Qualtrax ID: 69614

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt
	Effective Date: 11/14/2022

*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#: 92648446**

PM: BV Due Date: 02/07/23

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1		1																				2				
2		1	1		1																				2				
3		1	1		1																				2				
4		1	1		1																				2				
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11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Plant Hammond Pooled Upgradient
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Bonnie Vang
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

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

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																	Requested Analysis Filtered (Y/N)	N	N	N	N		92648446
1	HAM-HGWA-2	WG	G	1/24/2023	0935			16	5	2		3						X	X	X	X	N	002 pH = 5.22
2	HAM-HGWA-43D	WG	G	1/24/2023	1055			16	5	2		3						X	X	X	X	N	003 pH = 7.56
3	HAM-HGWA-44D	WG	G	1/24/2023	1057			15	5	2		3						X	X	X	X	N	004 pH = 8.22
4	HAM-HGWA-1	WG	G	1/24/2023		TJ 1/24/2023		16	5	2		3						X	X	X	X		005 pH = 6.76
5																							
6						TJ 1/24/2023																	
7																							
8																							
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Task Code: HAM-CCR-ASSMT-202351	Thomas Hester / Geosyntec	1/26/23	1100	/ GPC	1/26/23	1100	
	/ Geosyntec	1/26/23	1115	Ryan Williams / Pace	1/26/2023	1115	
	Ryan Williams / Pace	1/26/2023	1435		1/26/23	1435	

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Thomas Hester / Connor Lewis / Geosyntec Consultants, Inc.				
SIGNATURE of SAMPLER:	DATE Signed (MM/DD/YY): 1/24/2023				

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

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

May 05, 2023

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: Hammond AP-3
Pace Project No.: 92649042

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Noelia Gangi, Georgia Power
Ben Hodges, Georgia Power-CCR
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Laura Midkiff, Georgia Power
Michael Smilley, Georgia Power
Tina Sullivan, ERM
Anthony Szwast, Geosyntec

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Hammond AP-3
Pace Project No.: 92649042

Pace Analytical Services Charlotte
South Carolina Laboratory ID: 99006
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Laboratory ID: 99006
South Carolina Certification #: 99006001
South Carolina Drinking Water Cert. #: 99006003
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Louisiana DoH Drinking Water #: LA029
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Laboratory ID: 99030
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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

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

SAMPLE SUMMARY

Project: Hammond AP-3
Pace Project No.: 92649042

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92649042001	**HAM-HGWA-45D**	Water	01/24/23 11:03	01/26/23 11:15
92649042002	**HAM-HGWA-122**	Water	01/24/23 12:49	01/26/23 11:15
92649042003	**HAM-HGWC-121A**	Water	01/24/23 16:40	01/26/23 11:15
92649042004	**HAM-HGWC-124**	Water	01/24/23 15:13	01/26/23 11:15
92649042005	**HAM-HGWC-120**	Water	01/25/23 09:23	01/26/23 11:15
92649042006	**HAM-HGWC-125**	Water	01/25/23 10:56	01/26/23 11:15
92649042007	**HAM-HGWC-126**	Water	01/25/23 13:00	01/26/23 11:15
92649042008	**HAM-AP-3-FD-03**	Water	01/25/23 00:00	01/26/23 11:15
92649042009	**HAM-AP-3-EB-03**	Water	01/25/23 13:30	01/26/23 11:15
92649042010	**HAM-AP-3-FB-03**	Water	01/25/23 13:45	01/26/23 11:15

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

SAMPLE ANALYTE COUNT

Project: Hammond AP-3
Pace Project No.: 92649042

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92649042001	**HAM-HGWA-45D**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042002	**HAM-HGWA-122**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042003	**HAM-HGWC-121A**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042004	**HAM-HGWC-124**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042005	**HAM-HGWC-120**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042006	**HAM-HGWC-125**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042007	**HAM-HGWC-126**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042008	**HAM-AP-3-FD-03**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13

REPORT OF LABORATORY ANALYSIS

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

SAMPLE ANALYTE COUNT

Project: Hammond AP-3
Pace Project No.: 92649042

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042009	**HAM-AP-3-EB-03**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92649042010	**HAM-AP-3-FB-03**	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2540C-2015	DL1	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

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

SUMMARY OF DETECTION

Project: Hammond AP-3
Pace Project No.: 92649042

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92649042001	**HAM-HGWA-45D**					
	Performed by	Customer			02/15/23 11:34	
	pH	7.15	Std. Units		02/15/23 11:34	
EPA 6010D	Calcium	53.9	mg/L	1.0	02/02/23 21:48	
EPA 6020B	Barium	0.57	mg/L	0.0050	02/01/23 19:12	
EPA 6020B	Boron	0.14	mg/L	0.040	02/01/23 19:12	
EPA 6020B	Lithium	0.0044J	mg/L	0.030	02/01/23 19:12	
SM 2540C-2015	Total Dissolved Solids	289	mg/L	25.0	01/27/23 14:08	
EPA 300.0 Rev 2.1 1993	Chloride	3.5	mg/L	1.0	01/31/23 01:58	
EPA 300.0 Rev 2.1 1993	Fluoride	0.19	mg/L	0.10	01/31/23 01:58	
EPA 300.0 Rev 2.1 1993	Sulfate	5.2	mg/L	1.0	01/31/23 01:58	
92649042002	**HAM-HGWA-122**					
	Performed by	Customer			02/15/23 11:36	
	pH	6.43	Std. Units		02/15/23 11:36	
EPA 6010D	Calcium	63.3	mg/L	1.0	02/02/23 21:53	
EPA 6020B	Barium	0.035	mg/L	0.0050	02/03/23 15:32	
EPA 6020B	Boron	0.17	mg/L	0.040	02/03/23 15:32	
EPA 6020B	Molybdenum	0.0035J	mg/L	0.010	02/03/23 15:32	
SM 2540C-2015	Total Dissolved Solids	246	mg/L	25.0	01/27/23 14:09	
EPA 300.0 Rev 2.1 1993	Chloride	2.4	mg/L	1.0	01/31/23 02:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.13	mg/L	0.10	01/31/23 02:24	
EPA 300.0 Rev 2.1 1993	Sulfate	36.5	mg/L	1.0	01/31/23 02:24	
92649042003	**HAM-HGWC-121A**					
	Performed by	Customer			02/15/23 11:37	
	pH	6.75	Std. Units		02/15/23 11:37	
EPA 6010D	Calcium	156	mg/L	1.0	02/02/23 21:58	
EPA 6020B	Barium	0.059	mg/L	0.0050	02/03/23 15:38	
EPA 6020B	Boron	1.6	mg/L	0.040	02/03/23 15:38	
EPA 6020B	Lithium	0.0066J	mg/L	0.030	02/03/23 15:38	
SM 2540C-2015	Total Dissolved Solids	602	mg/L	25.0	01/27/23 14:09	
EPA 300.0 Rev 2.1 1993	Chloride	14.6	mg/L	1.0	01/31/23 03:42	
EPA 300.0 Rev 2.1 1993	Fluoride	0.18	mg/L	0.10	01/31/23 03:42	
EPA 300.0 Rev 2.1 1993	Sulfate	151	mg/L	3.0	01/31/23 17:28	
92649042004	**HAM-HGWC-124**					
	Performed by	Customer			02/15/23 11:58	
	pH	7.05	Std. Units		02/15/23 11:58	
EPA 6010D	Calcium	96.2	mg/L	1.0	02/02/23 22:02	
EPA 6020B	Antimony	0.0018J	mg/L	0.0030	02/03/23 16:02	
EPA 6020B	Barium	0.068	mg/L	0.0050	02/03/23 16:02	
EPA 6020B	Boron	0.34	mg/L	0.040	02/03/23 16:02	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	02/03/23 16:02	
SM 2540C-2015	Total Dissolved Solids	350	mg/L	25.0	01/27/23 14:10	
EPA 300.0 Rev 2.1 1993	Chloride	2.5	mg/L	1.0	01/31/23 04:08	
EPA 300.0 Rev 2.1 1993	Fluoride	0.068J	mg/L	0.10	01/31/23 04:08	
EPA 300.0 Rev 2.1 1993	Sulfate	69.6	mg/L	1.0	01/31/23 04:08	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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SUMMARY OF DETECTION

Project: Hammond AP-3
Pace Project No.: 92649042

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92649042005	**HAM-HGWC-120**					
	Performed by	Customer			02/15/23 12:01	
	pH	6.87	Std. Units		02/15/23 12:01	
EPA 6010D	Calcium	161	mg/L	1.0	02/02/23 22:07	
EPA 6020B	Barium	0.051	mg/L	0.0050	02/03/23 16:08	
EPA 6020B	Boron	0.94	mg/L	0.040	02/03/23 16:08	
EPA 6020B	Cobalt	0.0055	mg/L	0.0050	02/03/23 16:08	
EPA 6020B	Lithium	0.018J	mg/L	0.030	02/03/23 16:08	
EPA 6020B	Molybdenum	0.030	mg/L	0.010	02/03/23 16:08	
SM 2540C-2015	Total Dissolved Solids	656	mg/L	25.0	01/27/23 19:32	
EPA 300.0 Rev 2.1 1993	Chloride	2.6	mg/L	1.0	01/31/23 04:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.42	mg/L	0.10	01/31/23 04:33	
EPA 300.0 Rev 2.1 1993	Sulfate	230	mg/L	5.0	01/31/23 17:53	
92649042006	**HAM-HGWC-125**					
	Performed by	Customer			02/15/23 12:02	
	pH	6.32	Std. Units		02/15/23 12:02	
EPA 6010D	Calcium	174	mg/L	1.0	02/02/23 22:12	
EPA 6020B	Barium	0.042	mg/L	0.0050	02/03/23 16:14	
EPA 6020B	Boron	1.4	mg/L	0.040	02/03/23 16:14	
EPA 6020B	Cobalt	0.0097	mg/L	0.0050	02/03/23 16:14	
EPA 6020B	Lithium	0.0045J	mg/L	0.030	02/03/23 16:14	
EPA 6020B	Molybdenum	0.0053J	mg/L	0.010	02/03/23 16:14	
SM 2540C-2015	Total Dissolved Solids	798	mg/L	25.0	01/27/23 19:33	
EPA 300.0 Rev 2.1 1993	Chloride	8.7	mg/L	1.0	01/31/23 04:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.17	mg/L	0.10	01/31/23 04:59	
EPA 300.0 Rev 2.1 1993	Sulfate	306	mg/L	7.0	01/31/23 18:19	
92649042007	**HAM-HGWC-126**					
	Performed by	Customer			02/15/23 12:03	
	pH	6.89	Std. Units		02/15/23 12:03	
EPA 6010D	Calcium	132	mg/L	1.0	02/02/23 22:17	
EPA 6020B	Barium	0.24	mg/L	0.0050	02/03/23 17:39	
EPA 6020B	Boron	0.014J	mg/L	0.040	02/03/23 17:39	
EPA 6020B	Chromium	0.0014J	mg/L	0.0050	02/03/23 17:39	
EPA 6020B	Lithium	0.0046J	mg/L	0.030	02/03/23 17:39	
SM 2540C-2015	Total Dissolved Solids	517	mg/L	25.0	01/27/23 19:34	
EPA 300.0 Rev 2.1 1993	Chloride	8.7	mg/L	1.0	01/31/23 05:25	
EPA 300.0 Rev 2.1 1993	Fluoride	0.57	mg/L	0.10	01/31/23 05:25	
EPA 300.0 Rev 2.1 1993	Sulfate	63.7	mg/L	1.0	01/31/23 05:25	
92649042008	**HAM-AP-3-FD-03**					
EPA 6010D	Calcium	171	mg/L	1.0	02/02/23 22:32	
EPA 6020B	Barium	0.042	mg/L	0.0050	02/03/23 17:45	
EPA 6020B	Boron	1.4	mg/L	0.040	02/03/23 17:45	
EPA 6020B	Cobalt	0.0091	mg/L	0.0050	02/03/23 17:45	
EPA 6020B	Lithium	0.0046J	mg/L	0.030	02/03/23 17:45	
EPA 6020B	Molybdenum	0.0054J	mg/L	0.010	02/03/23 17:45	
SM 2540C-2015	Total Dissolved Solids	738	mg/L	25.0	01/27/23 19:34	
EPA 300.0 Rev 2.1 1993	Chloride	8.7	mg/L	1.0	01/31/23 05:51	

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SUMMARY OF DETECTION

Project: Hammond AP-3
Pace Project No.: 92649042

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92649042008	**HAM-AP-3-FD-03**					
EPA 300.0 Rev 2.1 1993	Fluoride	0.18	mg/L	0.10	01/31/23 05:51	
EPA 300.0 Rev 2.1 1993	Sulfate	308	mg/L	7.0	01/31/23 18:46	
92649042009	**HAM-AP-3-EB-03**					
SM 2540C-2015	Total Dissolved Solids	25.0	mg/L	25.0	01/27/23 19:35	
92649042010	**HAM-AP-3-FB-03**					
EPA 6020B	Chromium	0.0011J	mg/L	0.0050	02/03/23 17:57	

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ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-HGWA-45D **Lab ID: 92649042001** Collected: 01/24/23 11:03 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 11:34		
pH	**7.15**	Std. Units			1		02/15/23 11:34		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**53.9**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 21:48	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 10:17	02/01/23 19:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 10:17	02/01/23 19:12	7440-38-2	
Barium	**0.57**	mg/L	0.0050	0.00067	1	02/01/23 10:17	02/01/23 19:12	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 10:17	02/01/23 19:12	7440-41-7	
Boron	**0.14**	mg/L	0.040	0.0086	1	02/01/23 10:17	02/01/23 19:12	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 10:17	02/01/23 19:12	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 10:17	02/01/23 19:12	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 10:17	02/01/23 19:12	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 10:17	02/01/23 19:12	7439-92-1	
Lithium	**0.0044J**	mg/L	0.030	0.00073	1	02/01/23 10:17	02/01/23 19:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/23 10:17	02/01/23 19:12	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 10:17	02/01/23 19:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 10:17	02/01/23 19:12	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:22	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**289**	mg/L	25.0	25.0	1		01/27/23 14:08		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.5**	mg/L	1.0	0.60	1		01/31/23 01:58	16887-00-6	
Fluoride	**0.19**	mg/L	0.10	0.050	1		01/31/23 01:58	16984-48-8	
Sulfate	**5.2**	mg/L	1.0	0.50	1		01/31/23 01:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-HGWA-122 **Lab ID: 92649042002** Collected: 01/24/23 12:49 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 11:36		
pH	**6.43**	Std. Units			1		02/15/23 11:36		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**63.3**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 21:53	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 15:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 15:32	7440-38-2	
Barium	**0.035**	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 15:32	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 15:32	7440-41-7	
Boron	**0.17**	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 15:32	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 15:32	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 15:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 15:32	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 15:32	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 15:32	7439-93-2	
Molybdenum	**0.0035J**	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 15:32	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 15:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 15:32	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:38	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**246**	mg/L	25.0	25.0	1		01/27/23 14:09		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.4**	mg/L	1.0	0.60	1		01/31/23 02:24	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.050	1		01/31/23 02:24	16984-48-8	
Sulfate	**36.5**	mg/L	1.0	0.50	1		01/31/23 02:24	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-HGWC-121A **Lab ID: 92649042003** Collected: 01/24/23 16:40 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 11:37		
pH	**6.75**	Std. Units			1		02/15/23 11:37		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**156**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 21:58	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 15:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 15:38	7440-38-2	
Barium	**0.059**	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 15:38	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 15:38	7440-41-7	
Boron	**1.6**	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 15:38	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 15:38	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 15:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 15:38	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 15:38	7439-92-1	
Lithium	**0.0066J**	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 15:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 15:38	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 15:38	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 15:38	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:40	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**602**	mg/L	25.0	25.0	1		01/27/23 14:09		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**14.6**	mg/L	1.0	0.60	1		01/31/23 03:42	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	0.050	1		01/31/23 03:42	16984-48-8	
Sulfate	**151**	mg/L	3.0	1.5	3		01/31/23 17:28	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-HGWC-124 **Lab ID: 92649042004** Collected: 01/24/23 15:13 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 11:58		
pH	**7.05**	Std. Units			1		02/15/23 11:58		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**96.2**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 22:02	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0018J**	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 16:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 16:02	7440-38-2	
Barium	**0.068**	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 16:02	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 16:02	7440-41-7	
Boron	**0.34**	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 16:02	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 16:02	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 16:02	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 16:02	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 16:02	7439-92-1	
Lithium	**0.0011J**	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 16:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 16:02	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 16:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 16:02	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:43	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**350**	mg/L	25.0	25.0	1		01/27/23 14:10		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.5**	mg/L	1.0	0.60	1		01/31/23 04:08	16887-00-6	
Fluoride	**0.068J**	mg/L	0.10	0.050	1		01/31/23 04:08	16984-48-8	
Sulfate	**69.6**	mg/L	1.0	0.50	1		01/31/23 04:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-HGWC-120 **Lab ID: 92649042005** Collected: 01/25/23 09:23 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 12:01		
pH	**6.87**	Std. Units			1		02/15/23 12:01		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**161**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 22:07	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 16:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 16:08	7440-38-2	
Barium	**0.051**	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 16:08	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 16:08	7440-41-7	
Boron	**0.94**	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 16:08	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 16:08	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 16:08	7440-47-3	
Cobalt	**0.0055**	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 16:08	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 16:08	7439-92-1	
Lithium	**0.018J**	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 16:08	7439-93-2	
Molybdenum	**0.030**	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 16:08	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 16:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 16:08	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:45	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**656**	mg/L	25.0	25.0	1		01/27/23 19:32		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**2.6**	mg/L	1.0	0.60	1		01/31/23 04:33	16887-00-6	
Fluoride	**0.42**	mg/L	0.10	0.050	1		01/31/23 04:33	16984-48-8	
Sulfate	**230**	mg/L	5.0	2.5	5		01/31/23 17:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-HGWC-125 **Lab ID: 92649042006** Collected: 01/25/23 10:56 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 12:02		
pH	**6.32**	Std. Units			1		02/15/23 12:02		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**174**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 22:12	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 16:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 16:14	7440-38-2	
Barium	**0.042**	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 16:14	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 16:14	7440-41-7	
Boron	**1.4**	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 16:14	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 16:14	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 16:14	7440-47-3	
Cobalt	**0.0097**	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 16:14	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 16:14	7439-92-1	
Lithium	**0.0045J**	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 16:14	7439-93-2	
Molybdenum	**0.0053J**	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 16:14	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 16:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 16:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:48	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**798**	mg/L	25.0	25.0	1		01/27/23 19:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8.7**	mg/L	1.0	0.60	1		01/31/23 04:59	16887-00-6	
Fluoride	**0.17**	mg/L	0.10	0.050	1		01/31/23 04:59	16984-48-8	
Sulfate	**306**	mg/L	7.0	3.5	7		01/31/23 18:19	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-HGWC-126 **Lab ID: 92649042007** Collected: 01/25/23 13:00 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**Customer**				1		02/15/23 12:03		
pH	**6.89**	Std. Units			1		02/15/23 12:03		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**132**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 22:17	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 17:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 17:39	7440-38-2	
Barium	**0.24**	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 17:39	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 17:39	7440-41-7	
Boron	**0.014J**	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 17:39	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 17:39	7440-43-9	
Chromium	**0.0014J**	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 17:39	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 17:39	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 17:39	7439-92-1	
Lithium	**0.0046J**	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 17:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 17:39	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 17:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 17:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:51	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**517**	mg/L	25.0	25.0	1		01/27/23 19:34		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8.7**	mg/L	1.0	0.60	1		01/31/23 05:25	16887-00-6	
Fluoride	**0.57**	mg/L	0.10	0.050	1		01/31/23 05:25	16984-48-8	
Sulfate	**63.7**	mg/L	1.0	0.50	1		01/31/23 05:25	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-AP-3-FD-03 **Lab ID: 92649042008** Collected: 01/25/23 00:00 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**171**	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 22:32	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 17:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 17:45	7440-38-2	
Barium	**0.042**	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 17:45	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 17:45	7440-41-7	
Boron	**1.4**	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 17:45	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 17:45	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 17:45	7440-47-3	
Cobalt	**0.0091**	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 17:45	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 17:45	7439-92-1	
Lithium	**0.0046J**	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 17:45	7439-93-2	
Molybdenum	**0.0054J**	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 17:45	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 17:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 17:45	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:53	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**738**	mg/L	25.0	25.0	1		01/27/23 19:34		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**8.7**	mg/L	1.0	0.60	1		01/31/23 05:51	16887-00-6	
Fluoride	**0.18**	mg/L	0.10	0.050	1		01/31/23 05:51	16984-48-8	
Sulfate	**308**	mg/L	7.0	3.5	7		01/31/23 18:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-AP-3-EB-03 **Lab ID: 92649042009** Collected: 01/25/23 13:30 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 22:36	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 17:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 17:51	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 17:51	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 17:51	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 17:51	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 17:51	7440-43-9	
Chromium	ND	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 17:51	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 17:51	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 17:51	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 17:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 17:51	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 17:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 17:51	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:56	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**25.0**	mg/L	25.0	25.0	1		01/27/23 19:35		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		01/31/23 06:16	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		01/31/23 06:16	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		01/31/23 06:16	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: Hammond AP-3
Pace Project No.: 92649042

Sample: HAM-AP-3-FB-03 **Lab ID: 92649042010** Collected: 01/25/23 13:45 Received: 01/26/23 11:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.12	1	01/31/23 17:09	02/02/23 22:41	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00078	1	02/01/23 11:31	02/03/23 17:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.0022	1	02/01/23 11:31	02/03/23 17:57	7440-38-2	
Barium	ND	mg/L	0.0050	0.00067	1	02/01/23 11:31	02/03/23 17:57	7440-39-3	
Beryllium	ND	mg/L	0.00050	0.000054	1	02/01/23 11:31	02/03/23 17:57	7440-41-7	
Boron	ND	mg/L	0.040	0.0086	1	02/01/23 11:31	02/03/23 17:57	7440-42-8	
Cadmium	ND	mg/L	0.00050	0.00011	1	02/01/23 11:31	02/03/23 17:57	7440-43-9	
Chromium	**0.0011J**	mg/L	0.0050	0.0011	1	02/01/23 11:31	02/03/23 17:57	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00039	1	02/01/23 11:31	02/03/23 17:57	7440-48-4	
Lead	ND	mg/L	0.0010	0.00089	1	02/01/23 11:31	02/03/23 17:57	7439-92-1	
Lithium	ND	mg/L	0.030	0.00073	1	02/01/23 11:31	02/03/23 17:57	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00074	1	02/01/23 11:31	02/03/23 17:57	7439-98-7	
Selenium	ND	mg/L	0.0050	0.0014	1	02/01/23 11:31	02/03/23 17:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00018	1	02/01/23 11:31	02/03/23 17:57	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.00013	1	02/08/23 07:30	02/08/23 12:59	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2540C-2015 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		01/30/23 19:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		01/31/23 07:34	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		01/31/23 07:34	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		01/31/23 07:34	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

QC Batch: 752956
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92649042001, 92649042002, 92649042003, 92649042004, 92649042005, 92649042006, 92649042007, 92649042008, 92649042009, 92649042010

METHOD BLANK: 3912342 Matrix: Water
Associated Lab Samples: 92649042001, 92649042002, 92649042003, 92649042004, 92649042005, 92649042006, 92649042007, 92649042008, 92649042009, 92649042010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.12	02/02/23 20:40	

LABORATORY CONTROL SAMPLE: 3912343

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3912344 3912345

Parameter	Units	92649037012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L		1	1	4.1	4.3	96	117	75-125	5	20	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

QC Batch: 753097
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92649042001

METHOD BLANK: 3912787 Matrix: Water
Associated Lab Samples: 92649042001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/01/23 17:13	
Arsenic	mg/L	ND	0.0050	0.0022	02/01/23 17:13	
Barium	mg/L	ND	0.0050	0.00067	02/01/23 17:13	
Beryllium	mg/L	ND	0.00050	0.000054	02/01/23 17:13	
Boron	mg/L	ND	0.040	0.0086	02/01/23 17:13	
Cadmium	mg/L	ND	0.00050	0.00011	02/01/23 17:13	
Chromium	mg/L	ND	0.0050	0.0011	02/01/23 17:13	
Cobalt	mg/L	ND	0.0050	0.00039	02/01/23 17:13	
Lead	mg/L	ND	0.0010	0.00089	02/01/23 17:13	
Lithium	mg/L	ND	0.030	0.00073	02/01/23 17:13	
Molybdenum	mg/L	ND	0.010	0.00074	02/01/23 17:13	
Selenium	mg/L	ND	0.0050	0.0014	02/01/23 17:13	
Thallium	mg/L	ND	0.0010	0.00018	02/01/23 17:13	

LABORATORY CONTROL SAMPLE: 3912788

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	102	80-120	
Boron	mg/L	1	1.0	101	80-120	
Cadmium	mg/L	0.1	0.096	96	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	
Lead	mg/L	0.1	0.10	103	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.10	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3912789 3912790

Parameter	Units	92649067001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	3.4 ug/L	0.1	0.1	0.11	0.11	105	102	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	100	99	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3912789 3912790

Parameter	Units	92649067001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	47.9 ug/L	0.1	0.1	0.15	0.15	104	99	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20	
Boron	mg/L	ND	1	1	1.0	1.0	103	102	75-125	1	20	
Cadmium	mg/L	1.2 ug/L	0.1	0.1	0.10	0.097	99	96	75-125	3	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	101	98	75-125	3	20	
Lead	mg/L	81.8 ug/L	0.1	0.1	0.19	0.18	105	101	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	104	101	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	103	101	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

QC Batch: 753120
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92649042002, 92649042003, 92649042004, 92649042005, 92649042006, 92649042007, 92649042008, 92649042009, 92649042010

METHOD BLANK: 3912973 Matrix: Water
Associated Lab Samples: 92649042002, 92649042003, 92649042004, 92649042005, 92649042006, 92649042007, 92649042008, 92649042009, 92649042010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/03/23 15:19	
Arsenic	mg/L	ND	0.0050	0.0022	02/03/23 15:19	
Barium	mg/L	ND	0.0050	0.00067	02/03/23 15:19	
Beryllium	mg/L	ND	0.00050	0.000054	02/03/23 15:19	
Boron	mg/L	ND	0.040	0.0086	02/03/23 15:19	
Cadmium	mg/L	ND	0.00050	0.00011	02/03/23 15:19	
Chromium	mg/L	ND	0.0050	0.0011	02/03/23 15:19	
Cobalt	mg/L	ND	0.0050	0.00039	02/03/23 15:19	
Lead	mg/L	ND	0.0010	0.00089	02/03/23 15:19	
Lithium	mg/L	ND	0.030	0.00073	02/03/23 15:19	
Molybdenum	mg/L	ND	0.010	0.00074	02/03/23 15:19	
Selenium	mg/L	ND	0.0050	0.0014	02/03/23 15:19	
Thallium	mg/L	ND	0.0010	0.00018	02/03/23 15:19	

LABORATORY CONTROL SAMPLE: 3912974

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.12	117	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.11	109	80-120	
Boron	mg/L	1	1.1	108	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.11	105	80-120	
Lithium	mg/L	0.1	0.11	108	80-120	
Molybdenum	mg/L	0.1	0.10	104	80-120	
Selenium	mg/L	0.1	0.10	103	80-120	
Thallium	mg/L	0.1	0.11	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3912975 3912976

Parameter	Units	92649042003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.12	0.11	116	115	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3912975 3912976

Parameter	Units	92649042003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	102	104	75-125	1	20	
Barium	mg/L	0.059	0.1	0.1	0.16	0.16	102	102	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.088	0.085	88	85	75-125	4	20	
Boron	mg/L	1.6	1	1	2.5	2.5	93	85	75-125	3	20	
Cadmium	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	1	20	
Chromium	mg/L	ND	0.1	0.1	0.097	0.096	97	95	75-125	2	20	
Cobalt	mg/L	ND	0.1	0.1	0.098	0.095	97	95	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	0	20	
Lithium	mg/L	0.0066J	0.1	0.1	0.095	0.092	88	85	75-125	3	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	105	104	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	103	103	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
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QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

QC Batch: 754353
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92649042001, 92649042002, 92649042003, 92649042004, 92649042005, 92649042006, 92649042007, 92649042008, 92649042009, 92649042010

METHOD BLANK: 3918887 Matrix: Water
Associated Lab Samples: 92649042001, 92649042002, 92649042003, 92649042004, 92649042005, 92649042006, 92649042007, 92649042008, 92649042009, 92649042010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00020	0.00013	02/08/23 12:17	

LABORATORY CONTROL SAMPLE: 3918888

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3918889 3918890

Parameter	Units	92649042001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0025	98	101	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

QC Batch: 752254 | 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: 92649042001, 92649042002, 92649042003, 92649042004

METHOD BLANK: 3908925 Matrix: Water
Associated Lab Samples: 92649042001, 92649042002, 92649042003, 92649042004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	01/27/23 14:00	

LABORATORY CONTROL SAMPLE: 3908926

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	371	93	80-120	

SAMPLE DUPLICATE: 3908927

Parameter	Units	92648636001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	71.0		10	

SAMPLE DUPLICATE: 3908928

Parameter	Units	92649038017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	146	147	1	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

QC Batch: 752344 | 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: 92649042005, 92649042006, 92649042007, 92649042008, 92649042009

METHOD BLANK: 3909241 Matrix: Water
Associated Lab Samples: 92649042005, 92649042006, 92649042007, 92649042008, 92649042009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	01/27/23 19:22	

LABORATORY CONTROL SAMPLE: 3909242

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	392	98	80-120	

SAMPLE DUPLICATE: 3909243

Parameter	Units	92649136001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	89.0	91.0	2	10	

SAMPLE DUPLICATE: 3909244

Parameter	Units	92649038008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	289	264	9	10	

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QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

QC Batch: 752586
QC Batch Method: SM 2540C-2015
Analysis Method: SM 2540C-2015
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92649042010

METHOD BLANK: 3910228 Matrix: Water
Associated Lab Samples: 92649042010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	01/30/23 19:51	

LABORATORY CONTROL SAMPLE: 3910229

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	374	94	80-120	

SAMPLE DUPLICATE: 3910230

Parameter	Units	92649235001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	223	238	7	10	

SAMPLE DUPLICATE: 3910231

Parameter	Units	92649235018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Hammond AP-3
Pace Project No.: 92649042

QC Batch: 752690
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92649042001, 92649042002, 92649042003, 92649042004, 92649042005, 92649042006, 92649042007, 92649042008, 92649042009, 92649042010

METHOD BLANK: 3910852 Matrix: Water
Associated Lab Samples: 92649042001, 92649042002, 92649042003, 92649042004, 92649042005, 92649042006, 92649042007, 92649042008, 92649042009, 92649042010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	01/30/23 22:32	
Fluoride	mg/L	ND	0.10	0.050	01/30/23 22:32	
Sulfate	mg/L	ND	1.0	0.50	01/30/23 22:32	

LABORATORY CONTROL SAMPLE: 3910853

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.6	99	90-110	
Fluoride	mg/L	2.5	2.6	104	90-110	
Sulfate	mg/L	50	49.7	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3910854 3910855

Parameter	Units	92648913001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.7	50	50	52.0	52.7	99	100	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.5	2.5	98	100	90-110	1	10	
Sulfate	mg/L	ND	50	50	48.5	49.4	97	99	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3910856 3910857

Parameter	Units	92649042009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	51.0	51.2	102	102	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	103	104	90-110	1	10	
Sulfate	mg/L	ND	50	50	50.4	50.7	101	101	90-110	1	10	

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REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Hammond AP-3
Pace Project No.: 92649042

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.

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Peachtree Corners, GA 30092
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hammond AP-3
Pace Project No.: 92649042

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92649042001	**HAM-HGWA-45D**				
92649042002	**HAM-HGWA-122**				
92649042003	**HAM-HGWC-121A**				
92649042004	**HAM-HGWC-124**				
92649042005	**HAM-HGWC-120**				
92649042006	**HAM-HGWC-125**				
92649042007	**HAM-HGWC-126**				
92649042001	**HAM-HGWA-45D**	EPA 3010A	752956	EPA 6010D	753082
92649042002	**HAM-HGWA-122**	EPA 3010A	752956	EPA 6010D	753082
92649042003	**HAM-HGWC-121A**	EPA 3010A	752956	EPA 6010D	753082
92649042004	**HAM-HGWC-124**	EPA 3010A	752956	EPA 6010D	753082
92649042005	**HAM-HGWC-120**	EPA 3010A	752956	EPA 6010D	753082
92649042006	**HAM-HGWC-125**	EPA 3010A	752956	EPA 6010D	753082
92649042007	**HAM-HGWC-126**	EPA 3010A	752956	EPA 6010D	753082
92649042008	**HAM-AP-3-FD-03**	EPA 3010A	752956	EPA 6010D	753082
92649042009	**HAM-AP-3-EB-03**	EPA 3010A	752956	EPA 6010D	753082
92649042010	**HAM-AP-3-FB-03**	EPA 3010A	752956	EPA 6010D	753082
92649042001	**HAM-HGWA-45D**	EPA 3005A	753097	EPA 6020B	753234
92649042002	**HAM-HGWA-122**	EPA 3005A	753120	EPA 6020B	753253
92649042003	**HAM-HGWC-121A**	EPA 3005A	753120	EPA 6020B	753253
92649042004	**HAM-HGWC-124**	EPA 3005A	753120	EPA 6020B	753253
92649042005	**HAM-HGWC-120**	EPA 3005A	753120	EPA 6020B	753253
92649042006	**HAM-HGWC-125**	EPA 3005A	753120	EPA 6020B	753253
92649042007	**HAM-HGWC-126**	EPA 3005A	753120	EPA 6020B	753253
92649042008	**HAM-AP-3-FD-03**	EPA 3005A	753120	EPA 6020B	753253
92649042009	**HAM-AP-3-EB-03**	EPA 3005A	753120	EPA 6020B	753253
92649042010	**HAM-AP-3-FB-03**	EPA 3005A	753120	EPA 6020B	753253
92649042001	**HAM-HGWA-45D**	EPA 7470A	754353	EPA 7470A	754496
92649042002	**HAM-HGWA-122**	EPA 7470A	754353	EPA 7470A	754496
92649042003	**HAM-HGWC-121A**	EPA 7470A	754353	EPA 7470A	754496
92649042004	**HAM-HGWC-124**	EPA 7470A	754353	EPA 7470A	754496
92649042005	**HAM-HGWC-120**	EPA 7470A	754353	EPA 7470A	754496
92649042006	**HAM-HGWC-125**	EPA 7470A	754353	EPA 7470A	754496
92649042007	**HAM-HGWC-126**	EPA 7470A	754353	EPA 7470A	754496
92649042008	**HAM-AP-3-FD-03**	EPA 7470A	754353	EPA 7470A	754496
92649042009	**HAM-AP-3-EB-03**	EPA 7470A	754353	EPA 7470A	754496
92649042010	**HAM-AP-3-FB-03**	EPA 7470A	754353	EPA 7470A	754496
92649042001	**HAM-HGWA-45D**	SM 2540C-2015	752254		
92649042002	**HAM-HGWA-122**	SM 2540C-2015	752254		
92649042003	**HAM-HGWC-121A**	SM 2540C-2015	752254		
92649042004	**HAM-HGWC-124**	SM 2540C-2015	752254		
92649042005	**HAM-HGWC-120**	SM 2540C-2015	752344		
92649042006	**HAM-HGWC-125**	SM 2540C-2015	752344		
92649042007	**HAM-HGWC-126**	SM 2540C-2015	752344		
92649042008	**HAM-AP-3-FD-03**	SM 2540C-2015	752344		
92649042009	**HAM-AP-3-EB-03**	SM 2540C-2015	752344		

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hammond AP-3
Pace Project No.: 92649042

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92649042010	**HAM-AP-3-FB-03**	SM 2540C-2015	752586		
92649042001	**HAM-HGWA-45D**	EPA 300.0 Rev 2.1 1993	752690		
92649042002	**HAM-HGWA-122**	EPA 300.0 Rev 2.1 1993	752690		
92649042003	**HAM-HGWC-121A**	EPA 300.0 Rev 2.1 1993	752690		
92649042004	**HAM-HGWC-124**	EPA 300.0 Rev 2.1 1993	752690		
92649042005	**HAM-HGWC-120**	EPA 300.0 Rev 2.1 1993	752690		
92649042006	**HAM-HGWC-125**	EPA 300.0 Rev 2.1 1993	752690		
92649042007	**HAM-HGWC-126**	EPA 300.0 Rev 2.1 1993	752690		
92649042008	**HAM-AP-3-FD-03**	EPA 300.0 Rev 2.1 1993	752690		
92649042009	**HAM-AP-3-EB-03**	EPA 300.0 Rev 2.1 1993	752690		
92649042010	**HAM-AP-3-FB-03**	EPA 300.0 Rev 2.1 1993	752690		

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

WO# : 92649042

92649042

Sample Condition Upon Receipt

Client Name: Georgia Power Project #:

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

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 1/26/23 JM

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.3 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.3

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WG/WQ				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt
	Effective Date: 11/14/2022

WO# : 92649042

PM: BV Due Date: 02/09/23

CLIENT: GA-GA Power

***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

Project #

****Bottom half of box is to list number of bottles**

*****Check all unpreserved Nitrates for chlorine**

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG9A-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BPIN	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			1																			2				
2		1	1			1																			2				
3		1	1			1																			2				
4		1	1			1																			2				
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pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GA Power	Report To:	SCS Contacts	Attention:	Southern Co.
Address:	Atlanta, GA	Copy To:	Geosyntec Contacts	Company Name:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Hammond AP-3	Pace Project Manager:	Bonnie Vang
Requested Due Date/TAT:	10 Day	Project Number:		Pace Profile #:	10839

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analysis Test	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N			92469042
1	HAM-HGWA-45D	WG	G	1/24/2023	1103			17	5	2		3						N	Chloride, Fluoride, Sulfate	N	001 pH = 7.15
2	HAM-HGWA-122	WG	G	1/24/2023	1249			17	5	2		3						N	Full App. III and IV metals	N	002 pH = 6.43
3	HAM-HGWC-121A	WG	G	1/24/2023	1640			18	5	2		3						N	RAD 226/228	N	003 pH = 6.75
4	HAM-HGWC-124	WG	G	1/24/2023	1513			18	5	2		3						N	TDS	N	004 pH = 7.05
5					TJ 1/24/2023																
6																					
7																					
8																					
9					TJ 1/24/2023																
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Task Code: HAM-CCR-ASSMT-2023S1	Anthony Seward / Geosyntec	1/24/2023	2000	Thomas Hessler / Geosyntec	1/24	2000	
	Thomas Hessler / Geosyntec	1/26/23	1100	/ Geosyntec	1/26/23	1100	
	/ Geosyntec	1/26/23	1115	Ryan Williams / Pace	1/26/2023	1115	
	Ryan Williams / Pace	1/26/2023	1435		1/26/23	1435	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Anthony Seward / Geosyntec Consultants, Inc.

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/24/2023

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

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

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ M

WO# : 92649042

PM: BV Due Date: 02/09/23

CLIENT: GA-GA Power

Sample Condition Upon Receipt

Client Name: Georgia Power Project #

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

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: 1/26/23 JM

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.3 Correction Factor: Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.3

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WG/WG				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

***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# : 92649042**

PM: BV Due Date: 02/09/23

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP/N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			1																			2				
2		1	1			1																			2				
3		1	1			1																			2				
4		1	1			1																			2				
5		1	1			1																			2				
6		1	1			1																			2				
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GA Power	Report To:	SCS Contacts	Attention:	Southern Co.
Address:	Atlanta, GA	Copy To:	Geosyntec Contacts	Company Name:	
				Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Hammond AP-3	Pace Project Manager:	Bonnie Vang
Requested Due Date/TAT:	10 Day	Project Number:		Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Y/N	N	N	N	N		92469042
1	HAM-HGWC-120	WG	G	1/25/2023	0923				18	5	2	3							X	X	X	X	N	005 pH = 6.87
2	HAM-HGWC-125	WG	G	1/25/2023	1056				18	5	2	3							X	X	X	X	N	006 pH = 6.32
3	HAM-HGWC-126	WG	G	1/25/2023	1300				18	5	2	3							X	X	X	X	N	007 pH = 6.89
4	HAM-AP-3-FD-03	WQ	G	1/25/2023	0000				18	5	2	3							X	X	X	X	N	008 N/A
5	HAM-AP-3-EB-03	WQ	G	1/25/2023	1330				18	5	2	3							X	X	X	X	N	009 N/A
6	HAM-AP-3-FB-03	WQ	G	1/25/2023	1345				18	5	2	3							X	X	X	X	N	010 N/A
7						TJ 1/25/2023																		Last sample
8																								
9																								
10						TJ 1/25/2023																		
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Task Code: HAM-CCR-ASSMT-2023S1	Anthony Sewist / Geosyntec	1/25/2023	1900	Thomas Hassler / Geosyntec	1/25/2023	1900	
	Thomas Hassler / Geosyntec	1/26/23	1100	/ GEOSYNTEC	1/26/23	1100	
	/ Geosyntec	1/26/23	1115	Ryan Williams / Pace	1/24/2023	1115	
	Ryan Williams / Pace	1/24/2023	1455		1/26/23	1455	

SAMPLER NAME AND SIGNATURE			Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:	Anthony Sewist / Geosyntec Consultants, Inc.					
SIGNATURE of SAMPLER:		DATE Signed (MM/DD/YY): 01/25/2023				

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

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

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

March 23, 2023

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between January 24, 2023 and January 26, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Noelia Gangi, Georgia Power
Ben Hodges, Georgia Power-CCR
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Laura Midkiff, Georgia Power
Michael Smilley, Georgia Power
Tina Sullivan, ERM
Anthony Szwast, Geosyntec

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

CERTIFICATIONS

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

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

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

SAMPLE SUMMARY

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92648448001	**HAM-HGWA-3**	Water	01/23/23 16:49	01/24/23 12:38
92648448002	**HAM-HGWA-2**	Water	01/24/23 09:35	01/26/23 11:15
92648448003	**HAM-HGWA-43D**	Water	01/24/23 10:55	01/26/23 11:15
92648448004	**HAM-HGWA-44D**	Water	01/24/23 10:57	01/26/23 11:15
92648448005	**HAM-HGWA-1**	Water	01/24/23 09:35	01/26/23 11:15

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

SAMPLE ANALYTE COUNT

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92648448001	**HAM-HGWA-3**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92648448002	**HAM-HGWA-2**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92648448003	**HAM-HGWA-43D**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92648448004	**HAM-HGWA-44D**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92648448005	**HAM-HGWA-1**	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

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

SUMMARY OF DETECTION

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92648448001	**HAM-HGWA-3**					
EPA 9315	Radium-226	0.0154 ± 0.0951 (0.254) C:94% T:NA	pCi/L		02/20/23 10:18	
EPA 9320	Radium-228	0.296 ± 0.260 (0.535) C:94% T:91%	pCi/L		02/06/23 14:48	
Total Radium Calculation	Total Radium	0.311 ± 0.355 (0.789)	pCi/L		03/21/23 16:16	
92648448002	**HAM-HGWA-2**					
EPA 9315	Radium-226	0.230 ± 0.165 (0.266) C:92% T:NA	pCi/L		02/20/23 10:18	
EPA 9320	Radium-228	0.599 ± 0.364 (0.677) C:84% T:89%	pCi/L		02/08/23 14:36	
Total Radium Calculation	Total Radium	0.829 ± 0.529 (0.943)	pCi/L		03/21/23 16:16	
92648448003	**HAM-HGWA-43D**					
EPA 9315	Radium-226	0.304 ± 0.186 (0.279) C:95% T:NA	pCi/L		02/20/23 10:18	
EPA 9320	Radium-228	0.950 ± 0.437 (0.730) C:81% T:84%	pCi/L		02/08/23 14:36	
Total Radium Calculation	Total Radium	1.25 ± 0.623 (1.01)	pCi/L		03/21/23 16:16	
92648448004	**HAM-HGWA-44D**					
EPA 9315	Radium-226	0.112 ± 0.122 (0.232) C:96% T:NA	pCi/L		02/20/23 10:18	
EPA 9320	Radium-228	0.309 ± 0.319 (0.657) C:83% T:82%	pCi/L		02/08/23 14:39	
Total Radium Calculation	Total Radium	0.421 ± 0.441 (0.889)	pCi/L		03/21/23 16:16	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92648448005	**HAM-HGWA-1**					
EPA 9315	Radium-226	0.0747 ± 0.114 (0.248) C:96% T:NA	pCi/L		02/20/23 10:18	
EPA 9320	Radium-228	0.474 ± 0.314 (0.587) C:84% T:86%	pCi/L		02/08/23 14:39	
Total Radium Calculation	Total Radium	0.549 ± 0.428 (0.835)	pCi/L		03/21/23 16:16	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Sample: HAM-HGWA-3 **Lab ID: 92648448001** Collected: 01/23/23 16:49 Received: 01/24/23 12:38 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0154 ± 0.0951 (0.254) C:94% T:NA**	pCi/L	02/20/23 10:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.296 ± 0.260 (0.535) C:94% T:91%**	pCi/L	02/06/23 14:48	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.311 ± 0.355 (0.789)**	pCi/L	03/21/23 16:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Sample: HAM-HGWA-2 **Lab ID: 92648448002** Collected: 01/24/23 09:35 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.230 ± 0.165 (0.266) C:92% T:NA**	pCi/L	02/20/23 10:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.599 ± 0.364 (0.677) C:84% T:89%**	pCi/L	02/08/23 14:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.829 ± 0.529 (0.943)**	pCi/L	03/21/23 16:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Sample: HAM-HGWA-43D **Lab ID: 92648448003** Collected: 01/24/23 10:55 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.304 ± 0.186 (0.279) C:95% T:NA**	pCi/L	02/20/23 10:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.950 ± 0.437 (0.730) C:81% T:84%**	pCi/L	02/08/23 14:36	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.25 ± 0.623 (1.01)**	pCi/L	03/21/23 16:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Sample: HAM-HGWA-44D **Lab ID: 92648448004** Collected: 01/24/23 10:57 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.112 ± 0.122 (0.232) C:96% T:NA**	pCi/L	02/20/23 10:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.309 ± 0.319 (0.657) C:83% T:82%**	pCi/L	02/08/23 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.421 ± 0.441 (0.889)**	pCi/L	03/21/23 16:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Sample: HAM-HGWA-1 **Lab ID: 92648448005** Collected: 01/24/23 09:35 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0747 ± 0.114 (0.248) C:96% T:NA**	pCi/L	02/20/23 10:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.474 ± 0.314 (0.587) C:84% T:86%**	pCi/L	02/08/23 14:39	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.549 ± 0.428 (0.835)**	pCi/L	03/21/23 16:16	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

QC Batch: 567003
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92648448001, 92648448002, 92648448003, 92648448004, 92648448005

METHOD BLANK: 2753256 Matrix: Water
Associated Lab Samples: 92648448001, 92648448002, 92648448003, 92648448004, 92648448005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0414 ± 0.0994 (0.240) C:92% T:NA	pCi/L	02/20/23 10:18	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

QC Batch: 567029
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92648448001, 92648448002, 92648448003, 92648448004, 92648448005

METHOD BLANK: 2753383 Matrix: Water
Associated Lab Samples: 92648448001, 92648448002, 92648448003, 92648448004, 92648448005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.482 ± 0.308 (0.572) C:92% T:84%	pCi/L	02/06/23 14:47	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

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

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.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Hammond Pooled - RADS
Pace Project No.: 92648448

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92648448001	**HAM-HGWA-3**	EPA 9315	567003		
92648448002	**HAM-HGWA-2**	EPA 9315	567003		
92648448003	**HAM-HGWA-43D**	EPA 9315	567003		
92648448004	**HAM-HGWA-44D**	EPA 9315	567003		
92648448005	**HAM-HGWA-1**	EPA 9315	567003		
92648448001	**HAM-HGWA-3**	EPA 9320	567029		
92648448002	**HAM-HGWA-2**	EPA 9320	567029		
92648448003	**HAM-HGWA-43D**	EPA 9320	567029		
92648448004	**HAM-HGWA-44D**	EPA 9320	567029		
92648448005	**HAM-HGWA-1**	EPA 9320	567029		
92648448001	**HAM-HGWA-3**	Total Radium Calculation	575358		
92648448002	**HAM-HGWA-2**	Total Radium Calculation	575358		
92648448003	**HAM-HGWA-43D**	Total Radium Calculation	575358		
92648448004	**HAM-HGWA-44D**	Total Radium Calculation	575358		
92648448005	**HAM-HGWA-1**	Total Radium Calculation	575358		

Pace	DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt
	Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: G A Power

Project #: WO# : 92648448

92648448

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 1/24/23 (JH)

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.4 **Correction Factor:** Add/Subtract (°C) 0.0

Cooler Temp Corrected (°C): 4.4

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: W				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt
	Effective Date: 11/14/2022

***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#: 92648448

PM: BV Due Date: 02/14/23

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			1																		3				
2																												
3																												
4																												
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GA Power	Report To:	SCS Contacts	Attention:	Southern Co.
Address:	Atlanta, GA	Copy To:	Geosyntec Contacts	Company Name:	
			Task Code: HAM-CCR-ASSMT-2023S1	Address:	
Email To:	SCS Contacts	Purchase Order No.:		Pace Quote Reference:	
Phone:	Fax:	Project Name:	Plant Hammond Pooled Upgradient	Pace Project Manager:	Nicole D'Oleo
Requested Due Date/TAT:	10 Day	Project Number:		Pace Profile #:	10839

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	HAM-HGWA-3	WG	G	1/23/2023	1649			17	5	2		3						N	X	X	X	X	N	92648448
2						TJ 1/23/2023																		pH = 7.32
3																								
4																								
5																								
6																								
7						TJ 1/23/2023																			
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
1-HAM-CCR-ASSMT-2023S1	Thomas Kessler / Geosyntec	1/24/2023	1040	Ryan Williams / Pace	1/24/2023	1040	
	Ryan Williams / Pace	1/24/2023	1238		1/24/23	1238	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Connor Cain / Geosyntec Consultants, Inc

SIGNATURE of SAMPLER: CC DATE Signed (MM/DD/YY): 01/23/23

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

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

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

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Georgia Power **Project #:**

WO#: 92648448

PM: BV Due Date: 02/09/23

CLIENT: GA-GA Power

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 1/26/23 JM

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.3 **Correction Factor:** Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.3

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WG/WG				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt
	Effective Date: 11/14/2022

WO# : 92648448
PM: BV Due Date: 02/09/23
CLIENT: GA-GA Power

*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

Project #

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

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP1U	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1																									2				
2																									2				
3																									2				
4																									2				
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: GA Power	Report To: SCS Contacts	Attention: Southern Co.
Address: Atlanta, GA	Copy To: Geosyntec Contacts	Company Name:
		Address:
Email To: SCS Contacts	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: Plant Hammond Pooled Upgradient	Pace Project Manager: Bonnie Vang
Requested Due Date/TAT: 10 Day	Project Number:	Pace Profile #: 10839

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes: DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chloride, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
																		Requested Analysis Filtered (Y/N)	N	N	N	N		92648448
1	HAM-HGWA-2	WG	G	1/24/2023	0935				10	5	2		3						X	X	X	X	N	001 pH = 5.22
2	HAM-HGWA-43D	WG	G	1/24/2023	1055				10	5	2		3						X	X	X	X	N	003 pH = 7.56
3	HAM-HGWA-44D	WG	G	1/24/2023	1057				15	5	2		3						X	X	X	X	N	004 pH = 8.22
4	HAM-HGWA-1	WG	G	1/24/2023		TJ 1/24/2023			10	5	2		3						X	X	X	X		005 pH = 6.76
5																								
6																								
7																								
8						TJ 1/24/2023																		
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Task Code: HAM-CCR-ASSMT-202351	Thomas Hester / Geosyntec	1/26/23	1100	[signature] / GEOSYNTEC	1/26/23	1100	
	[signature] / Geosyntec	1/26/23	1115	Ryan Williams / Pace	1/26/2023	1115	
	Ryan Williams / Pace	1/26/2023	1435	[signature]	1/26/23	1435	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Thomas Hester / Connor Clark / Geosyntec Consultants, Inc.

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 1/24/2023

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

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

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

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

February 18, 2023

Joju Abraham
Georgia Power-CCR
2480 Maner Road
Atlanta, GA 30339

RE: Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on January 26, 2023. 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,

Bonnie Vang
bonnie.vang@pacelabs.com
(704)875-9092
Project Manager

Enclosures

cc: Noelia Gangi, Georgia Power
Ben Hodges, Georgia Power
Christine Hug, Geosyntec Consultants, Inc.
Kristen Jurinko
Thomas Kessler, Geosyntec
Whitney Law, Geosyntec Consultants
Laura Midkiff, Georgia Power
Noelia Muskus, Geosyntec Consultants
Ms. Lauren Petty, Southern Company
Michael Smilley, Georgia Power
Tina Sullivan, ERM
Anthony Szwast, Geosyntec
Nardos Tilahun, GeoSyntec
Dawit Yifru, Geosyntec Consultants, Inc.

REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

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

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

SAMPLE SUMMARY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92649043001	**HAM-HGWA-45D**	Water	01/24/23 11:03	01/26/23 11:15
92649043002	**HAM-HGWA-122**	Water	01/24/23 12:49	01/26/23 11:15
92649043003	**HAM-HGWC-121A**	Water	01/24/23 18:40	01/26/23 11:15
92649043004	**HAM-HGWC-124**	Water	01/24/23 15:13	01/26/23 11:15
92649043005	**HAM-HGWC-120**	Water	01/25/23 09:23	01/26/23 11:15
92649043006	**HAM-HGWC-125**	Water	01/25/23 10:56	01/26/23 11:15
92649043007	**HAM-HGWC-126**	Water	01/25/23 13:00	01/26/23 11:15
92649043008	**HAM-AP-3-FD-03**	Water	01/25/23 00:00	01/26/23 11:15
92649043009	**HAM-AP-3-EB-03**	Water	01/25/23 13:30	01/26/23 11:15
92649043010	**HAM-AP-3-FB-03**	Water	01/25/23 13:45	01/26/23 11:15

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

SAMPLE ANALYTE COUNT

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92649043001	**HAM-HGWA-45D**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043002	**HAM-HGWA-122**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043003	**HAM-HGWC-121A**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043004	**HAM-HGWC-124**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043005	**HAM-HGWC-120**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043006	**HAM-HGWC-125**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043007	**HAM-HGWC-126**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043008	**HAM-AP-3-FD-03**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043009	**HAM-AP-3-EB-03**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92649043010	**HAM-AP-3-FB-03**	EPA 9315	RMS	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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

SUMMARY OF DETECTION

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92649043001	**HAM-HGWA-45D**					
EPA 9315	Radium-226	0.402 ± 0.166 (0.189) C:97% T:NA	pCi/L		02/15/23 18:29	
EPA 9320	Radium-228	0.341 ± 0.378 (0.792) C:80% T:84%	pCi/L		02/13/23 13:02	
Total Radium Calculation	Total Radium	0.743 ± 0.544 (0.981)	pCi/L		02/17/23 12:29	
92649043002	**HAM-HGWA-122**					
EPA 9315	Radium-226	0.135 ± 0.0979 (0.154) C:101% T:NA	pCi/L		02/15/23 18:29	
EPA 9320	Radium-228	0.307 ± 0.373 (0.788) C:81% T:78%	pCi/L		02/13/23 13:02	
Total Radium Calculation	Total Radium	0.442 ± 0.471 (0.942)	pCi/L		02/17/23 12:29	
92649043003	**HAM-HGWC-121A**					
EPA 9315	Radium-226	0.0982 ± 0.0909 (0.165) C:101% T:NA	pCi/L		02/15/23 18:29	
EPA 9320	Radium-228	0.659 ± 0.362 (0.636) C:84% T:84%	pCi/L		02/13/23 13:02	
Total Radium Calculation	Total Radium	0.757 ± 0.453 (0.801)	pCi/L		02/17/23 12:29	
92649043004	**HAM-HGWC-124**					
EPA 9315	Radium-226	0.126 ± 0.0971 (0.158) C:100% T:NA	pCi/L		02/15/23 18:29	
EPA 9320	Radium-228	0.475 ± 0.341 (0.647) C:81% T:79%	pCi/L		02/13/23 13:02	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92649043004	**HAM-HGWC-124**					
Total Radium Calculation	Total Radium	0.601 ± 0.438 (0.805)	pCi/L		02/17/23 12:29	
92649043005	**HAM-HGWC-120**					
EPA 9315	Radium-226	0.258 ± 0.128 (0.153) C:101% T:NA	pCi/L		02/15/23 18:29	
EPA 9320	Radium-228	0.734 ± 0.368 (0.629) C:80% T:89%	pCi/L		02/13/23 13:02	
Total Radium Calculation	Total Radium	0.992 ± 0.496 (0.782)	pCi/L		02/17/23 12:29	
92649043006	**HAM-HGWC-125**					
EPA 9315	Radium-226	0.310 ± 0.159 (0.231) C:92% T:NA	pCi/L		02/15/23 18:29	
EPA 9320	Radium-228	0.796 ± 0.408 (0.692) C:78% T:79%	pCi/L		02/13/23 13:02	
Total Radium Calculation	Total Radium	1.11 ± 0.567 (0.923)	pCi/L		02/17/23 12:29	
92649043007	**HAM-HGWC-126**					
EPA 9315	Radium-226	0.747 ± 0.232 (0.179) C:97% T:NA	pCi/L		02/15/23 18:29	
EPA 9320	Radium-228	1.16 ± 0.512 (0.875) C:81% T:86%	pCi/L		02/13/23 13:03	
Total Radium Calculation	Total Radium	1.91 ± 0.744 (1.05)	pCi/L		02/17/23 12:29	
92649043008	**HAM-AP-3-FD-03**					
EPA 9315	Radium-226	0.262 ± 0.134 (0.173) C:99% T:NA	pCi/L		02/15/23 18:29	

REPORT OF LABORATORY ANALYSIS

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

SUMMARY OF DETECTION

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92649043008	**HAM-AP-3-FD-03**					
EPA 9320	Radium-228	0.933 ± 0.505 (0.920) C:78% T:78%	pCi/L		02/13/23 13:03	
Total Radium Calculation	Total Radium	1.20 ± 0.639 (1.09)	pCi/L		02/17/23 12:29	
92649043009	**HAM-AP-3-EB-03**					
EPA 9315	Radium-226	-0.00792 ± 0.0515 (0.159) C:101% T:NA	pCi/L		02/15/23 18:29	
EPA 9320	Radium-228	0.702 ± 0.530 (1.05) C:69% T:78%	pCi/L		02/13/23 13:03	
Total Radium Calculation	Total Radium	0.702 ± 0.582 (1.21)	pCi/L		02/17/23 12:29	
92649043010	**HAM-AP-3-FB-03**					
EPA 9315	Radium-226	0.0134 ± 0.0958 (0.245) C:100% T:NA	pCi/L		02/15/23 19:46	
EPA 9320	Radium-228	0.389 ± 0.452 (0.957) C:80% T:82%	pCi/L		02/13/23 13:03	
Total Radium Calculation	Total Radium	0.402 ± 0.548 (1.20)	pCi/L		02/17/23 12:29	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-HGWA-45D **Lab ID: 92649043001** Collected: 01/24/23 11:03 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.402 ± 0.166 (0.189) C:97% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.341 ± 0.378 (0.792) C:80% T:84%**	pCi/L	02/13/23 13:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.743 ± 0.544 (0.981)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-HGWA-122 **Lab ID: 92649043002** Collected: 01/24/23 12:49 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.135 ± 0.0979 (0.154) C:101% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.307 ± 0.373 (0.788) C:81% T:78%**	pCi/L	02/13/23 13:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.442 ± 0.471 (0.942)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-HGWC-121A **Lab ID: 92649043003** Collected: 01/24/23 18:40 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0982 ± 0.0909 (0.165) C:101% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.659 ± 0.362 (0.636) C:84% T:84%**	pCi/L	02/13/23 13:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.757 ± 0.453 (0.801)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-HGWC-124 **Lab ID: 92649043004** Collected: 01/24/23 15:13 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.126 ± 0.0971 (0.158) C:100% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.475 ± 0.341 (0.647) C:81% T:79%**	pCi/L	02/13/23 13:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.601 ± 0.438 (0.805)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-HGWC-120 **Lab ID: 92649043005** Collected: 01/25/23 09:23 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.258 ± 0.128 (0.153) C:101% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.734 ± 0.368 (0.629) C:80% T:89%**	pCi/L	02/13/23 13:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.992 ± 0.496 (0.782)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-HGWC-125 **Lab ID: 92649043006** Collected: 01/25/23 10:56 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.310 ± 0.159 (0.231) C:92% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.796 ± 0.408 (0.692) C:78% T:79%**	pCi/L	02/13/23 13:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.11 ± 0.567 (0.923)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-HGWC-126 **Lab ID: 92649043007** Collected: 01/25/23 13:00 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.747 ± 0.232 (0.179) C:97% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.16 ± 0.512 (0.875) C:81% T:86%**	pCi/L	02/13/23 13:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.91 ± 0.744 (1.05)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-AP-3-FD-03 **Lab ID: 92649043008** Collected: 01/25/23 00:00 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.262 ± 0.134 (0.173) C:99% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.933 ± 0.505 (0.920) C:78% T:78%**	pCi/L	02/13/23 13:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.20 ± 0.639 (1.09)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-AP-3-EB-03 **Lab ID: 92649043009** Collected: 01/25/23 13:30 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**-0.00792 ± 0.0515 (0.159) C:101% T:NA**	pCi/L	02/15/23 18:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.702 ± 0.530 (1.05) C:69% T:78%**	pCi/L	02/13/23 13:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.702 ± 0.582 (1.21)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Sample: HAM-AP-3-FB-03 **Lab ID: 92649043010** Collected: 01/25/23 13:45 Received: 01/26/23 11:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0134 ± 0.0958 (0.245) C:100% T:NA**	pCi/L	02/15/23 19:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.389 ± 0.452 (0.957) C:80% T:82%**	pCi/L	02/13/23 13:03	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.402 ± 0.548 (1.20)**	pCi/L	02/17/23 12:29	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

QC Batch: 563640
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92649043001, 92649043002, 92649043003, 92649043004, 92649043005, 92649043006, 92649043007, 92649043008, 92649043009, 92649043010

METHOD BLANK: 2736994 Matrix: Water
Associated Lab Samples: 92649043001, 92649043002, 92649043003, 92649043004, 92649043005, 92649043006, 92649043007, 92649043008, 92649043009, 92649043010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.204 ± 0.336 (0.731) C:81% T:82%	pCi/L	02/13/23 13:01	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL - RADIOCHEMISTRY

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

QC Batch: 563637
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92649043001, 92649043002, 92649043003, 92649043004, 92649043005, 92649043006, 92649043007, 92649043008, 92649043009, 92649043010

METHOD BLANK: 2736986
Matrix: Water
Associated Lab Samples: 92649043001, 92649043002, 92649043003, 92649043004, 92649043005, 92649043006, 92649043007, 92649043008, 92649043009, 92649043010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0170 ± 0.0627 (0.161) C:102% T:NA	pCi/L	02/15/23 18:29	

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

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

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.

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hammond AP-3 - RADS
Pace Project No.: 92649043

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92649043001	**HAM-HGWA-45D**	EPA 9315	563637		
92649043002	**HAM-HGWA-122**	EPA 9315	563637		
92649043003	**HAM-HGWC-121A**	EPA 9315	563637		
92649043004	**HAM-HGWC-124**	EPA 9315	563637		
92649043005	**HAM-HGWC-120**	EPA 9315	563637		
92649043006	**HAM-HGWC-125**	EPA 9315	563637		
92649043007	**HAM-HGWC-126**	EPA 9315	563637		
92649043008	**HAM-AP-3-FD-03**	EPA 9315	563637		
92649043009	**HAM-AP-3-EB-03**	EPA 9315	563637		
92649043010	**HAM-AP-3-FB-03**	EPA 9315	563637		
92649043001	**HAM-HGWA-45D**	EPA 9320	563640		
92649043002	**HAM-HGWA-122**	EPA 9320	563640		
92649043003	**HAM-HGWC-121A**	EPA 9320	563640		
92649043004	**HAM-HGWC-124**	EPA 9320	563640		
92649043005	**HAM-HGWC-120**	EPA 9320	563640		
92649043006	**HAM-HGWC-125**	EPA 9320	563640		
92649043007	**HAM-HGWC-126**	EPA 9320	563640		
92649043008	**HAM-AP-3-FD-03**	EPA 9320	563640		
92649043009	**HAM-AP-3-EB-03**	EPA 9320	563640		
92649043010	**HAM-AP-3-FB-03**	EPA 9320	563640		
92649043001	**HAM-HGWA-45D**	Total Radium Calculation	567961		
92649043002	**HAM-HGWA-122**	Total Radium Calculation	567961		
92649043003	**HAM-HGWC-121A**	Total Radium Calculation	567961		
92649043004	**HAM-HGWC-124**	Total Radium Calculation	567961		
92649043005	**HAM-HGWC-120**	Total Radium Calculation	567961		
92649043006	**HAM-HGWC-125**	Total Radium Calculation	567961		
92649043007	**HAM-HGWC-126**	Total Radium Calculation	567961		
92649043008	**HAM-AP-3-FD-03**	Total Radium Calculation	567961		
92649043009	**HAM-AP-3-EB-03**	Total Radium Calculation	567961		
92649043010	**HAM-AP-3-FB-03**	Total Radium Calculation	567961		

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt
	Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: Georgia Power **Project #:**

WO# : 92649043

92649043

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 1/26/23 JM

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230 **Type of Ice:** ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.3 **Correction Factor:** Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.3

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WG/WQ				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

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

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

*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#: 92649043

PM: BV Due Date: 02/09/23

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG9A-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP1N	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		—	—			1																			2				
2		—	—			1																			2				
3		—	—			1																			2				
4		—	—			1																			2				
5																									2				
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-3
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Bonnie Vang
Pace Profile #:	10839

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / , -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END DATE	COLLECTED COMPOSITE END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chlorides, Fluoride, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D. 92649043
																				Requested Analysis Filtered (Y/N)	N	N	N	N		
1	HAM-HGWA-45D		WG	G	1/24/2023	1103			17	5	2		3								X	X	X	X	N	001 pH = 7.15
2	HAM-HGWA-122		WG	G	1/24/2023	1249			17	5	2		3								X	X	X	X	N	002 pH = 6.43
3	HAM-HGWC-121A		WG	G	1/24/2023	1640			18	5	2		3								X	X	X	X	N	003 pH = 6.75
4	HAM-HGWC-124		WG	G	1/24/2023	1513			18	5	2		3								X	X	X	X	N	004 pH = 7.05
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

TJ 1/24/2023

TJ 1/24/2023

ADDITIONAL COMMENTS

Task Code: HAM-CCR-ASSMT-2023S1

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
Anthony Seward / Geosyntec	1/24/2023	2000	Thomas Kessler / Geosyntec	1/24	2000
Thomas Kessler / Geosyntec	1/25/23	1100	/ Geosyntec	1/25/23	1100
/ Geosyntec	1/26/23	1115	Ryan Williams / Pace	1/26/2023	1115
Ryan Williams / Pace	1/26/2023	1435		1/26/23	1435

SAMPLE CONDITIONS

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Anthony Seward / Geosyntec Consultants, Inc.

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 01/24/2023

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

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

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

Laboratory receiving samples:

Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑

WO# : 92649043

PM: BV **Due Date: 02/09/23**

CLIENT: GA-GA Power

Sample Condition Upon Receipt

Client Name: Georgia Power **Project #:**

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

Custody Seal Present? ☐ Yes ☑ No **Seals Intact?** ☐ Yes ☐ No

Date/Initials Person Examining Contents: 1/26/23 JM

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

Biological Tissue Frozen? ☐ Yes ☐ No ☑ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 1.3 **Correction Factor:** Add/Subtract (°C) 0.0

Temp should be above freezing to 6°C

☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 1.3

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC? -Includes Date/Time/ID/Analysis Matrix: WG/WQ	☑ Yes	☐ No	☐ N/A	9.
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☑ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: **Date:**

Project Manager SRF Review: **Date:**

Pace ANALYTICAL SERVICES

DC#_Title: ENV-FRM-HUN1-0083 v02_Sample Condition Upon Receipt

Effective Date: 11/14/2022

***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#: 92649043

PM: BV **Due Date: 02/09/23**

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4B-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	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)	DG94-40 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unpreserved (N/A)	DG9V-40 mL VOA H3PO4 (N/A)	KP7U-50 mL Plastic Unpreserved (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)	BP/W	BP3R-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved (N/A) (Cl-)	V5GU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			2																			2				
2		1	1			1																			2				
3		1	1			1																			2				
4		1	1			1																			2				
5		1	1			1																			2				
6		1	1			1																			2				
7																									2				
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

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

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

Qualtrax ID: 69614

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company:	GA Power
Address:	Atlanta, GA
Email To:	SCS Contacts
Phone:	Fax:
Requested Due Date/TAT:	10 Day

Section B Required Project Information:

Report To:	SCS Contacts
Copy To:	Geosyntec Contacts
Purchase Order No.:	
Project Name:	Hammond AP-3
Project Number:	

Section C Invoice Information:

Attention:	Southern Co.
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	Bonnie Vang
Pace Profile #:	10639

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☑ OTHER CCR

Site Location STATE: GA

Section D Required Client Information

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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	COLLECTED COMPOSITE DATE	COLLECTED COMPOSITE TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N	Chlorides, Fluorides, Sulfate	Full App. III and IV metals	RAD 226/228	TDS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
	Requested Analysis Filtered (Y/N)																		N	N	N	N		
1	HAM-HGWC-120	WG	G	1/25/2023	0923			18	5	2		3							X	X	X	X	N	pH = 6.87
2	HAM-HGWC-125	WG	G	1/25/2023	1056			18	5	2		3							X	X	X	X	N	pH = 6.32
3	HAM-HGWC-126	WG	G	1/25/2023	1300			18	5	2		3							X	X	X	X	N	pH = 6.89
4	HAM-AP-3-FD-03	WQ	G	1/25/2023	0000			18	5	2		3							X	X	X	X	N	N/A
5	HAM-AP-3-EB-03	WQ	G	1/25/2023	1330			18	5	2		3							X	X	X	X	N	N/A
6	HAM-AP-3-FB-03	WQ	G	1/25/2023	1345			18	5	2		3							X	X	X	X	N	N/A
7						TJ 1/25/2023																		Last sample
8																								
9																								
10						TJ 1/252023																		
11																								
12																								

92649043

Pace Project No./ Lab I.D.

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Task Code: HAM-CCR-ASSMT-2023S1D	Anthony Sewell / Geosyntec	1/25/2023	1900	Thomas Hassler / Geosyntec	1/25/2023	1900	
	Thomas Hassler / Geosyntec	1/26/23	1140	/ GEOSYNTEC	1/26/23	1140	
	/ Geosyntec	1/26/23	1115	Ryan William / Pace	1/26/23	1115	
	Ryan William / Pace	1/26/2023	1445		1/26/23	1445	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Anthony Sewell / Geosyntec Consultants, Inc.

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 01/25/2023

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

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

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

VALIDATION REPORTS

August 2022

Geosyntec consultants

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Knoxville, TN 37922
PH 865.330.0037
www.geosyntec.com

Memorandum

Date:	14 December 2022
To:	Christine Hug
From:	Ashley Wilson
CC:	J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverables – Pace Analytical Project Nos.: 92618823 and 92618829**

SITE: Plant Hammond AP-3 and Plant Hammond Pooled Upgradient

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twelve aqueous samples, one field blank, one equipment blank and one field duplicate, collected 2 and 4 August 2022, as part of the Plant Hammond sampling event.

The samples were analyzed at Pace Analytical Services – Peachtree Corners, Peachtree Corners, Georgia, for the following analytical tests:

- Metals by United States (US) Environmental Protection Agency (EPA) Methods 3005A/6020B
- Metals by US EPA Method 3010A/6010D
- Mercury by US EPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C-2015

The samples were analyzed at Pace Analytical Services - Asheville, Asheville, North Carolina, for the following analytical tests:

- Anions (chloride, fluoride and sulfate) by US EPA Method 300.0 Rev 2.1 1993
- Alkalinity as CaCO3 (total, bicarbonate and carbonate) by SM 2320B-2011
- Sulfide by SM 4500-S2D-2011

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for supporting project objectives. Qualified data should be used within the limitation of the qualification.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment and the following documents:

- United States Environmental Protection Agency (US EPA) Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011) and
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 540-R-20-006).

The following samples were analyzed and reported in the laboratory report:

Laboratory IDs	Client IDs
92618823001	HGWA-45D
92618823002	HGWA-122
92618823003	HGWC-120
92618823004	HGWC-121A
92618823005	HGWC-124
92618823006	HGWC-125
92618823007	HGWC-126
92618823008	DUP-3

Laboratory IDs	Client IDs
92618823009	EB-3
92618823010	FB-3
92618829001	HGWA-1
92618829002	HGWA-2
92618829003	HGWA-3
92618829004	HGWA-43D
92618829005	HGWA-44D

The chain of custody (COC) indicates the samples were received between 0-6 ºC. No preservation issues were noted by the laboratory.

The laboratory reported results for pH, however, those results were not validated in this report.

Radium 226/228 was requested on the COC. However, this data was reported separately.

1.0 METALS

The samples were analyzed for metals by US EPA methods 3005A/6020B and 3010A/6010D.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
⊗ Equipment Blank
✓ Field Blank

- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

1.1 Overall Assessment

The metals data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for metals by US EPA method 6020B (batches 715918 and 716035), and two method blanks for metals by US EPA Method 6010D (batches 716032 and 716036). Metals were not detected in the method blanks at or above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Sample set specific MS/MSD pairs were reported for metals by US EPA methods 6020B and 6010D, using samples HGWC-120 and HGWC-125, respectively. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria, with the following exceptions.

One or both recoveries of calcium, magnesium and sodium in the MS/MSD pair using sample HGWC-125 were low or high and outside of laboratory specified acceptance criteria. Since the calcium, magnesium and sodium concentrations in sample HGWC-125 were greater than four times the spiked concentrations, no qualifications were applied to the data based on the MS/MSD recovery results.

Batch MS/MSDs were also reported for both methods. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported with each batch. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank was collected with the sample set, EB-3. Metals were not detected in the equipment blank at or above the MDLs, with the following exception.

Boron was detected at an estimated concentration greater than the MDL and less than the reporting limit (RL) in EB-3. Therefore, the estimated boron concentrations in the associated samples were U qualified as not detected at the RL.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
HGWC-126	Boron	0.023	J	0.040	U	3
HGWA-1	Boron	0.012	J	0.040	U	3

mg/L- milligram per liter
J-estimated concentration greater than the MDL and less than the RL
* Validation qualifiers are defined in Attachment 1 at the end of this report
**Reason codes are defined in Attachment 2 at the end of this report

1.7 Field Blank

One field blank was collected with the sample set, FB-3. Metals were not detected in the field blank at or above the MDLs.

1.8 Field Duplicate

One field duplicate was collected with the sample set, DUP-3. Acceptable precision (RPD ≤ 30%) was demonstrated between the field duplicate and the original sample, HGWC-121A, with the following exceptions.

Antimony was not detected in DUP-3 and detected at an estimated concentration greater than the MDL and less than the RL in HGWC-121A, resulting in a noncalculable RPD. Therefore, based on professional and technical judgment, the antimony concentration in HGWC-121A was J qualified as estimated and the non-detect result in DUP-3 was UJ qualified as estimated less than the MDL.

The iron RPD for field duplicate pair HGWC-121A/DUP-3 was greater than 30%. Therefore, the concentrations of iron in HGWC-121A and DUP-3 were J qualified as estimated.

Sample	Analyte	Laboratory Result (mg/l)	Laboratory Flag	RPD	Validation Result (mg/l)	Validation Qualifier	Reason Code
HGWC-121A	Antimony	0.0016	J	NC	0.0016	J	7
DUP-3	Antimony	0.00078	U		0.00078	UJ	7
HGWC-121A	Iron	0.086	NA	39	0.086	J	7
DUP-3	Iron	0.058	NA		0.058	J	7

mg/L- milligram per liter
NC-noncalculable
NA-not applicable
J-the result is less than RL but greater than the MDL and the concentration is an approximate value
U-not detected at or above the MDL

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were reported for cadmium in sample HGWC-120 due to dilution because of matrix interference.

1.10 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by US EPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate

- ✓ Sensitivity
- ✓ Electronic Data Deliverable Review

2.1 Overall Assessment

The mercury data reported in this data package are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this dataset is 100%.

2.2 Holding Time

The holding time for the mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported (batches 716252 and 716247). Mercury was not detected in the method blank at or above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

Two batch MS/MSD pairs were reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

2.6 Equipment Blank

One equipment blank was collected with the sample set, EB-3. Mercury was not detected in the equipment blank at or above the MDL.

2.7 Field Blank

One field blank was collected with the sample set, FB-3. Mercury was not detected in the field blank at or above the MDL.

2.8 Field Duplicate

One field duplicate was collected with the sample set, DUP-3. Acceptable precision (RPD ≤ 30%) was demonstrated between the field duplicate and the original sample, HGWC-121A.

2.9 Sensitivity

The samples were reported to the MDL. Elevated non-detect results were not reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for chloride, fluoride and sulfate by US EPA method 300.0 Rev 2.1 1993, TDS by SM 2540C-2015, alkalinity as CaCO3 (total, bicarbonate and carbonate) by SM 2320B-2011 and sulfide by SM 4500-S2D-2011.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
⊗ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverable Review

3.1 Overall Assessment

The wet chemistry data reported in this data package are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this dataset is 100%.

3.2 Holding Times

The holding times for water samples are listed below. The holding times were met for the sample analyses.

Analysis	Holding Time
Anions (fluoride, chloride and sulfate)	28 days from collection to analysis
TDS	7 days from collection to analysis
Alkalinity	14 days from collection to analysis
Sulfide	28 days from collection to analysis

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Two method blanks were reported for TDS (batches 715874 and 715879). Three method blanks were reported for chloride, fluoride and sulfate (batches 716707, 717488 and 717487). Four method blanks were reported for alkalinity (batches 716055, 717515, 717728 and 716212). Four method blanks were reported for sulfide (batches 715461, 715462, 716114 and 716115). The wet chemistry parameters were not detected in the method blanks at or above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported for chloride, fluoride and sulfate using sample HGWC-120. One sample set specific MS/MSD pair was reported for alkalinity using sample EB-3. One sample set specific MS/MSD pair was reported for sulfide using sample HGWC-126. The recovery and RPD results were within the laboratory specified acceptance criteria, with the following exceptions.

The recoveries of sulfide in the MS/MSD pair using sample HGWC-126 were low and outside of laboratory specified acceptance criteria. Therefore, the nondetect result for sulfide in sample HGWC-126 was UJ qualified as estimated less than the RL.

The recoveries of alkalinity in the MS/MSD pair using sample HGWA-44D were low and outside of laboratory specified acceptance limits. However, since the sample concentration is greater than four times the spike amount, the recovery limits were not applicable. Therefore, no qualifications were applied to the data.

Batch MS/MSD pairs were also reported. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
HGWC-126	Sulfide	0.10	U M1	0.10	UJ	4

mg/L- milligram per liter
U-not detected at or above the MDL
M1-Matrix spike recovery exceeded QC limits

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). LCSs were reported for each analysis and batch. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Two laboratory duplicates were reported for TDS using samples HGWC-124 and HGWA-44D. The RPD result was within the laboratory specified acceptance criteria.

Four batch laboratory duplicates were also reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank was collected with the sample set, EB-3. The wet chemistry parameters were not detected in the equipment blank at or above the MDLs.

3.8 Field Blank

One field blank was collected with the sample set, FB-3. The wet chemistry parameters were not detected in the field blank at or above the MDLs.

3.9 Field Duplicate

One field duplicate was collected with the sample set, DUP-3. Acceptable precision (RPD $\leq$ 30%) was demonstrated between the field duplicate and the original sample, HGWC-121A.

3.10 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS
AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result".

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS recovery outside limits and RPD outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample duplicate
RPD - Relative percent difference

Geosyntec consultants

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PH 865.330.0037
www.geosyntec.com

Memorandum

Date:	January 10, 2023
To:	Whitney Law
From:	Kristoffer Henderson
CC:	J. Caprio
Subject:	**Stage 2A Data Validation - Level II Data Deliverables – Pace Analytical Services, LLC Project Numbers 92618780 and 92618785**

SITE: Plant Hammond AP-3 and Plant Hammond Pooled Upgradient

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of twelve aqueous samples, one field duplicate, one equipment blank and one field blank, collected August 2 and 4 2022, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Greensburg, PA for the following analytical tests:

- Radium-226 by US EPA Method 9315
- Radium-228 by US EPA Method 9320
- Total Radium by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory report:

Laboratory ID	Client ID
92618780001	HGWA-45D
92618780002	HGWA-122
92618780003	HGWC-120
92618780004	HGWC-121A
92618780005	HGWC-124
92618780006	HGWC-125
92618780007	HGWC-126
92618780008	DUP-3

Laboratory ID	Client ID
92618780009	EB-3
92618780010	FB-3
92618785001	HGWA-1
92618785002	HGWA-2
92618785003	HGWA-3
92618785004	HGWA-43D
92618785005	HGWA-44D

The samples were received within 0-6 degrees Celsius (ºC). No sample preservation issues were noted by the laboratory.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by US EPA method 9315, radium-228 by US EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data set are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported for the radium-226 data (batches 525508, 525513 and 525510). Three method blanks were reported for the radium-228 data (batches 525976, 525944 and 525947). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCS/LCS duplicate (LCSD) pairs were reported for radium-226. One LCS and two LCS/LCSD pairs were reported for radium-228. The recovery and replicate error ratio (RER) [1 sigma (1σ)] results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for radium-226 using sample FB-3. The RER result was within the laboratory specified acceptance criteria.

Two batch laboratory duplicates were also reported for radium-226. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Equipment Blank

One equipment blank was collected with the sample set, EB-4. Radium-226 and radium-228 were not detected in the equipment blank above the MDCs.

1.9 Field Blank

One field blank was collected with the sample set, FB-3. Radium-226 and radium-228 were not detected in the field blank above the MDCs.

1.10 Field Duplicate

One field duplicate sample was collected with the sample set, DUP-3. Acceptable precision (RER (1σ) < 3) was demonstrated between the field duplicate and the original sample, HGWC-121A.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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* * * * *

ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result".

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample duplicate
RPD - Relative percent difference

January 2023

Geosyntec consultants

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Memorandum

Date: May 24, 2023

To: Whitney Law

From: Amani Royce

CC: K. Henderson

Subject: Stage 2A Data Validation - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 92648446

SITE: Plant Hammond AP-1/ AP-2/AP-3 (Pooled Upgradient)

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of five aqueous samples, collected 23 and 24 January 2023, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services Atlanta, Peachtree Corners, Georgia, for the following analytical tests:

- Calcium by United States Environmental Protection Agency (US EPA) Methods 3010A/6010D
- Metals by USEPA Methods 3005A/6020B
- Mercury by USEPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method 2540C

The samples were analyzed at Pace Analytical Services Asheville, North Carolina, for the following analytical test:

- Anions (Chloride, Fluoride and Sulfate) by USEPA Method 300.0

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data are usable for supporting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);

- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
92648446001	HAM-HGWA-3
92648446002	HAM-HGWA-2
92648446003	HAM-HGWA-43D

Laboratory ID	Client ID
92648446004	HAM-HGWA-44D
92648446005	HAM-HGWA-1

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

The sample collection time was not listed on the chain of custody (COC) for sample HAM-HGWA-1. The laboratory assigned collection times of 9:35.

The laboratory report revised on 5 May 2023 was used for data validation.

The results flagged as "ND" in the electronic data deliverable (EDD) were changed to U.

The field pH data included in the laboratory report were not validated.

1.0 METALS

The samples were analyzed for metals by USEPA methods 3010A/6010D and USEPA methods 3005A/6020B. (Mercury was evaluated separately in Section 2.0, below).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Equipment Blank
✓ Field Blank
✓ Field Duplicate

- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four method blanks were reported (batches 752651, 752956, 752599, and 753097). Metals were not detected in the method blanks above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

One sample set specific MS/MSD pair was reported for calcium by US EPA method, using sample HAM-HGWA-3. The relative percent difference (RPD) result was within the laboratory specified acceptance criteria, and the recoveries of calcium in the MS/MSD pair using sample HAM-HGWA-3 were low and outside of the laboratory specified acceptance criteria. Since the calcium concentration in sample HAM-HGWA-3 was greater than four times the spike concentration, no qualifications were applied to the data.

One batch MS/MSD pair was reported for calcium. Since this was batch QC, the result does not affect the samples in this data set and qualifications were not applied to the data.

One sample set specific MS/MSD pair was reported for metals by US EPA method 6020B, using sample HAM-HGWA-3. The recovery and RPD results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was reported for metals by US EPA method 6020B. Since this was batch QC, the result does not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Four LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

An equipment blank was not collected with the sample set.

1.7 Field Blank

A field blank was not collected with the sample set.

1.8 Field Duplicate

A field duplicate sample was not collected with the sample set.

1.9 Sensitivity

The samples were reported to the MDLs. Elevated non-detect results were not reported.

1.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by USEPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Time

- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

2.2 Holding Time

The holding time for mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 752854). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

One batch MS/MSD pair was reported. Since this was batch QC, the result does not affect the samples in this data set and qualifications were not applied to the data.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory specified acceptance criteria.

2.6 Equipment Blank

An equipment blank was not collected with the sample set.

2.7 Field Blank

A field blank was not collected with the sample set.

2.8 Field Duplicate

A field duplicate sample was not collected with the sample set.

2.9 Sensitivity

The samples were reported to the MDL. No elevated non-detect results were reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for TDS by Standard method 2540C and anions by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

3.1 Overall Assessment

The wet chemistry data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this data set is 100%.

3.2 Holding Times

The holding time for the TDS analysis of a water sample is 7 days from sample collection to analysis. The holding time for the anions (chloride, fluoride, and sulfate) analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for TDS (batch 752254) and three method blanks were reported for the anions (batches 751618, 752456, and 752690). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

Six batch MS/MSD pairs were reported for the anions. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported for TDS and three LCSs were reported for the anions. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Two batch laboratory duplicates were reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

An equipment blank was not collected with the sample set.

3.8 Field Blank

A field blank was not collected with the sample set.

3.9 Field Duplicate

A field duplicate sample was not collected with the sample set.

3.10 Sensitivity

The samples were reported to the MDLs for the anions and the reporting limit (RL) for TDS. No elevated non-detect results were reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result".

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample duplicate
RPD - Relative percent difference

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Memorandum

Date:	June 13, 2023
To:	Whitney Law
From:	Amani Royce
CC:	K. Henderson
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 92648448**

SITE: Plant Hammond AP-1/AP-2/AP-3 (Pooled Upgradient RADS)

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of five aqueous samples, collected 23 and 24 January 2023, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Greensburg, Pennsylvania, for the following analytical tests:

- Radium-226 by United States (US) Environmental Protection Agency (EPA) Method 9315
- Radium-228 by US EPA Method 9320
- Total Radium by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
92648448001	HAM-HGWA-3
92648448002	HAM-HGWA-2
92648448003	HAM-HGWA-43D

Laboratory ID	Client ID
92648448004	HAM-HGWA-44D
92648448005	HAM-HGWA-1

The samples were received within 0-6 degrees Celsius (ºC). No sample preservation issues were noted by the laboratory.

The sample collection time was not listed on the COC for sample HAM-HGWA-1. The laboratory assigned collection time of 9:35.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by US EPA method 9315, radium-228 by US EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data set are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the radium-228 data (batch 567029). One method blank was reported for the radium-226 data (batch 567003). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS/LCS duplicate (LCSD) pair was reported for radium-226. One LCS was reported for radium-228. The recovery and replicate error ratio (RER) [1 sigma (1σ)] results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

One batch laboratory duplicate was reported for radium-226 and one batch laboratory duplicate was reported for radium-228. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Equipment Blank

An equipment blank was not collected with the sample set.

1.9 Field Blank

A field blank was not collected with the sample set.

1.10 Field Duplicate

A field duplicate was not collected with the sample set.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable (EDD) Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result."

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample duplicate
RPD - Relative percent difference

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Memorandum

Date:	May 20, 2023
To:	Whitney Law
From:	Amani Royce
CC:	K. Henderson
Subject:	**Stage 2A Data Validation - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 92649042**

SITE: Plant Hammond AP-3

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of seven aqueous samples, one field duplicate, one field blank, and one equipment blank, collected 24 and 25 January 2023, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services Atlanta, Peachtree Corners, Georgia, for the following analytical tests:

- Calcium by United States Environmental Protection Agency (US EPA) Methods 3010A/6010D
- Metals by USEPA Methods 3005A/6020B
- Mercury by USEPA Method 7470A
- Total Dissolved Solids (TDS) by Standard Method (SM) 2540C

The samples were analyzed at Pace Analytical Services Asheville, North Carolina, for the following analytical test:

- Anions (Chloride, Fluoride and Sulfate) by USEPA Method 300.0

EXECUTIVE SUMMARY

Overall, based on this Stage 2A data validation covering the quality control (QC) parameters listed below and based on the information provided, the data as qualified are usable for supporting project objectives. The qualified data should be used within the limitations of the qualifications. If there are results with two or more different qualifications due to multiple QC failures, the final qualification is reconciled in the electronic data deliverable (EDD) with qualifications.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
92649042001	HAM-HGWA-45D
92649042002	HAM-HGWA-122
92649042003	HAM-HGWC-121A
92649042004	HAM-HGWC-124
92649042005	HAM-HGWC-120

Laboratory ID	Client ID
92649042006	HAM-HGWC-125
92649042007	HAM-HGWC-126
92649042008	HAM-AP-3-FD-03
92649042009	HAM-AP-3-EB-03
92649042010	HAM-AP-3-FB-03

The samples were received within 0-6 degrees Celsius (°C). No sample preservation issues were noted by the laboratory.

The initial receipt year was not documented on the chain of custody (COC) for the samples collected on 24 January 2023.

The laboratory report revised on 5 May 2023 was used for data validation.

The results flagged as "ND" in the EDD were changed to U.

The field pH data included in the laboratory report were not validated.

1.0 METALS

The samples were analyzed for metals by USEPA methods 3010A/6010D and USEPA methods 3005A/6020B. (Mercury was evaluated separately in Section 2.0, below).

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ⊗ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The metals data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Time

The holding time for the metals analysis of a water sample is 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported (batches 752956, 753097, and 753120). Metals were not detected in the method blanks above the method detection limits (MDLs).

1.4 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

One batch MS/MSD pair was reported for calcium. Since this was batch QC, the result does not affect the samples in this data set and qualifications were not applied to the data.

One sample set specific MS/MSD pair was reported for metals by US EPA method 6020B, using sample HAM-HGWC-121A. The recovery and relative percent difference (RPD) results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was reported for metals by US EPA method 6020B. Since this was batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

1.5 Laboratory Control Sample (LCS)

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported. The recovery results were within the laboratory specified acceptance criteria.

1.6 Equipment Blank

One equipment blank was collected with the sample set, HAM-AP-3-EB-03. Metals were not detected in the equipment blank above the MDLs.

1.7 Field Blank

One field blank was collected with the sample set, HAM-AP-3-FB-03. Metals were not detected in the field blank above the MDLs, with the following exception.

Chromium was detected in the field blank at an estimated concentration greater than the MDL and less than the reporting limit (RL). Therefore, the estimated chromium concentration in sample HAM-HGWC-126 was U qualified as not detected at the RL. Since chromium was not detected in the remaining samples, no additional qualifications were applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier*	Reason Code**
HAM-HGWC-126	chromium	0.0014	J	0.005	U	3

mg/L-milligrams per liter
J - Laboratory flag indicating the result is less than the RL, but greater than or equal to the MDL and the concentration is an approximate value.
* Validation qualifiers are defined in Attachment 1 at the end of this report.
**Reason codes are defined in Attachment 2 at the end of this report.

1.8 Field Duplicate

One field duplicate sample was collected with the sample set, HAM-AP-3-FD-03. Acceptable precision (RPD $\leq$ 30%) was demonstrated between the field duplicate and the original sample, HAM-HGWC-125.

1.9 Sensitivity

The samples were reported to the MDLs. No elevated non-detect results were reported.

1.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

2.0 MERCURY

The samples were analyzed for mercury by USEPA method 7470A.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Time
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

2.1 Overall Assessment

The mercury data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

2.2 Holding Time

The holding time for mercury analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

2.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported (batch 754353). Mercury was not detected in the method blank above the MDL.

2.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One sample set specific MS/MSD pair was reported, using sample HAM-HGWA-45D. The recovery and RPD results were within the laboratory specified acceptance criteria.

2.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS was reported. The recovery result was within the laboratory specified acceptance criteria.

2.6 Equipment Blank

One equipment blank was collected with the sample set, HAM-AP-3-EB-03. Mercury was not detected in the equipment blank above the MDL.

2.7 Field Blank

One field blank was collected with the sample set, HAM-AP-3-FB-03. Mercury was not detected in the field blank above the MDL.

2.8 Field Duplicate

One field duplicate sample was collected with the sample set, HAM-AP-3-FD-03. Acceptable precision (RPD $\leq$ 30%) was demonstrated between the field duplicate and the original sample, HAM-HGWC-125.

2.9 Sensitivity

The samples were reported to the MDL. No elevated non-detect results were reported.

2.10 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

3.0 WET CHEMISTRY

The samples were analyzed for TDS by SM 2540C and anions by USEPA method 300.0.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

✓ Overall Assessment
✓ Holding Times
✓ Method Blank
✓ Matrix Spike/Matrix Spike Duplicate
✓ Laboratory Control Sample
✓ Laboratory Duplicate
⊗ Equipment Blank
✓ Field Blank
✓ Field Duplicate
✓ Sensitivity
✓ Electronic Data Deliverables Review

3.1 Overall Assessment

The wet chemistry data reported in this data set are considered usable for supporting project objectives. The results are considered valid; the analytical completeness defined as the ratio of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for these analyses, for this data set is 100%.

3.2 Holding Times

The holding time for the TDS analysis of a water sample is 7 days from sample collection to analysis. The holding time for the anions (chloride, fluoride, and sulfate) analysis of a water sample is 28 days from sample collection to analysis. The holding times were met for the sample analyses.

3.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three method blanks were reported for TDS (batches 752254, 752344, and 752586) and one method blank was reported for the anions (batch 752690). The wet chemistry parameters were not detected in the method blanks above the MDLs.

3.4 Matrix Spike/Matrix Spike Duplicate

MS/MSDs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples).

One sample set specific MS/MSD pair was reported for anions, using samples HAM-AP-3-EB-03. The recovery and RPD results were within the laboratory specified acceptance criteria.

One batch MS/MSD pair was reported for the anions. Since this was batch QC, the result does not affect the samples in this data set and qualifications were not applied to the data.

3.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). Three LCSs were reported for TDS and one LCS was reported for anions. The recovery results were within the laboratory specified acceptance criteria.

3.6 Laboratory Duplicate

Six batch laboratory duplicates were reported for TDS. Since these were batch QC, the results do not affect the samples in this data set and qualifications were not applied to the data.

3.7 Equipment Blank

One equipment blank was collected with the sample set HAM-AP-3-EB-03. The wet chemistry parameters were not detected in the equipment blank above the MDLs, with the following exception.

TDS was detected in the equipment blank at the RL. Therefore, the TDS concentration in sample HAM-HGWA-122 was J+ qualified as estimated with a high bias. Since TDS was detected at concentrations 10x greater than the equipment blank contamination in the remaining samples, no additional qualifications were applied to the data.

Sample ID	Compound	Laboratory Result (mg/L)	Laboratory Flag	Validation Result (mg/L)	Validation Qualifier	Reason Code
HAM-HGWA-122	TDS	246	NA	246	J+	3

mg/L-milligrams per liter
NA-Not Applicable

3.8 Field Blank

One field blank was collected with the sample set, HAM-AP-3-FB-03. The wet chemistry parameters were not detected in the field blank above the MDLs.

3.9 Field Duplicate

One field duplicate sample was collected with the sample set, HAM-AP-3-FD-03. Acceptable precision (RPD $\leq$ 30%) was demonstrated between the field duplicate and the original sample, HAM-HGWC-125.

3.10 Sensitivity

The samples were reported to the MDLs for the anions and the RL for TDS. No elevated non-detect results were reported.

3.11 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected at or above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result."

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected at or above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
RPD - Relative Percent Difference

Geosyntec consultants

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Memorandum

Date: June 1, 2023

To: Whitney Law

From: Amani Royce

CC: K. Henderson

Subject: Stage 2A Data Validation - Level II Data Deliverable – Pace Analytical Services, LLC Project Number 92649043

SITE: Plant Hammond AP-3 (RADS)

INTRODUCTION

This report summarizes the findings of the Stage 2A data validation of seven aqueous samples, one field duplicate, one field blank, and one equipment blank, collected 24 and 25 January 2023, as part of the Plant Hammond AP on-site sampling event.

The samples were analyzed at Pace Analytical Services, LLC, Greensburg, Pennsylvania, for the following analytical tests:

- Radium-226 by United States (US) Environmental Protection Agency (EPA) Method 9315
- Radium-228 by US EPA Method 9320
- Total Radium by Calculation

EXECUTIVE SUMMARY

Based on the Stage 2A data validation covering the quality control (QC) parameters listed below and the information provided, the data as qualified are usable for meeting project objectives.

The data were reviewed based on the pertinent methods referenced in the laboratory reports, professional and technical judgment, and the following documents:

- US EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011);
- USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review, November 2020 (EPA 542-R-20-006); and
- American National Standard, Verification and Validation of Radiological Data for use in Waste Management and Environmental Remediation, February 15, 2012 (ANSI/ANS-41.5-2012).

The following samples were analyzed and reported in the laboratory reports:

Laboratory ID	Client ID
92649043001	HAM-HGWA-45D
92649043002	HAM-HGWA-122
92649043003	HAM-HGWC-121A
92649043004	HAM-HGWC-124
92649043005	HAM-HGWC-120

Laboratory ID	Client ID
92649043006	HAM-HGWC-125
92649043007	HAM-HGWC-126
92649043008	HAM-AP-3-FD-03
92649043009	HAM-AP-3-EB-03
92649043010	HAM-AP-3-FB-03

The samples were received within 0-6 degrees Celsius (^{o}C). No sample preservation issues were noted by the laboratory.

The initial receipt year was not documented on the chain of custody (COC) for the samples collected on 24 January 2023.

1.0 RADIOCHEMISTRY

The samples were analyzed for radium-226 by US EPA method 9315, radium-228 by US EPA method 9320 and total radium by calculation.

The areas of data review are listed below. A leading check mark (✓) indicates an area of review in which the data were acceptable. A preceding crossed circle (⊗) signifies areas where issues were raised during the course of the validation review and should be considered to determine any impact on data quality and usability.

- ✓ Overall Assessment
- ✓ Holding Times
- ✓ Method Blank
- ✓ Matrix Spike/Matrix Spike Duplicate
- ✓ Laboratory Control Sample
- ✓ Laboratory Duplicate
- ✓ Tracers and Carriers
- ✓ Equipment Blank
- ✓ Field Blank
- ✓ Field Duplicate
- ✓ Sensitivity
- ✓ Electronic Data Deliverables Review

1.1 Overall Assessment

The radium-226 and radium-228 data reported in this data set are considered usable for meeting project objectives. The results are considered valid; the analytical completeness defined as the ratio

of the number of valid analytical results (valid analytical results include values qualified as estimated) to the total number of analytical results requested on samples submitted for this analysis, for this data set is 100%.

1.2 Holding Times

The holding times for the radium-226 and radium-228 analyses of a water sample are 180 days from sample collection to analysis. The holding times were met for the sample analyses.

1.3 Method Blank

Method blanks were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One method blank was reported for the radium-228 data (batch 563640). One method blank was reported for the radium-226 data (batch 563637). Radium-226 and radium-228 were not detected in the method blanks above the minimum detectable concentrations (MDCs).

1.4 Matrix Spike/Matrix Spike Duplicate

MS/MSD pairs were not reported with the data.

1.5 Laboratory Control Sample

LCSs were analyzed at the proper frequency for the number and types of samples analyzed (one per batch of 20 samples). One LCS/LCS duplicate (LCSD) pair was reported for radium-226. One LCS/LCSD pair was reported for radium-228. The recovery and replicate error ratio (RER) [1 sigma (1σ)] results were within the laboratory specified acceptance criteria.

1.6 Laboratory Duplicate

One sample set specific laboratory duplicate was reported for radium-226 using sample HAM-HGWA-45D. The RER result was within the laboratory specified acceptance criteria.

1.7 Tracers and Carriers

Carriers were reported for the radium-226 and radium-228 analyses and a tracer was reported for the radium-228 analyses. The recovery results were within the laboratory specified acceptance criteria.

1.8 Equipment Blank

One equipment blank was collected with the sample set, HAM-AP-3-EB-03. Radium-226 and radium-228 were not detected in the equipment blank above the MDCs.

1.9 Field Blank

One field blank was collected with the sample set, HAM-AP-3-FB-03. Radium-226 and radium-228 were not detected in the field blank above the MDCs.

1.10 Field Duplicate

One field duplicate sample was collected with the sample set, HAM-AP-3-FD-03. Acceptable precision (RER (1σ) < 3) was demonstrated between the field duplicate and the original sample, HAM-HGWC-125.

1.11 Sensitivity

The samples were reported to the MDCs. No elevated non-detect results were reported.

1.12 Electronic Data Deliverable Review

The results and sample IDs in the EDD were reviewed against the information provided by the associated level II report at a minimum of 20% as part of the data validation process. No discrepancies were identified between the level II report and the EDD.

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ATTACHMENT 1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by Geosyntec's Data Validation Team

DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for but was not detected above the reported sample quantitation limit. Upon application of the U qualifier to a reported result, the definition changes to "not detected at or above the reported result."

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

J+ The analyte was positively identified; however, the associated numerical value is likely to be higher than the concentration of the analyte in the sample due to positive bias of associated QC or calibration data or attributable to matrix interference.

J- The analyte was positively identified; however, the associated numerical value is likely to be lower than the concentration of the analyte in the sample due to negative bias of associated QC or calibration data or attributable to matrix interference.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

ATTACHMENT 2
DATA VALIDATION REASON CODES
Assigned by Geosyntec's Data Validation Team

Valid Value	Description
1	Preservation requirement not met
2	Analysis holding time exceeded
3	Blank contamination (i.e., method, trip, equipment, etc.)
4	Matrix spike/matrix spike duplicate recovery or RPD outside limits
5	LCS or RPD recovery outside limits (LCS/LCSD)
6	Surrogate recovery outside limits
7	Field Duplicate RPD exceeded
8	Serial dilution percent difference exceeded
9	Calibration criteria not met
10	Linear range exceeded
11	Internal standard criteria not met
12	Lab duplicates RPD exceeded
13	Other
14	Lab flag removed or modified: no validation qualification required

LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
RPD - Relative Percent Difference

FIELD SAMPLING REPORTS

August 2022

Low-Flow Test Report:

Test Date / Time: 8/2/2022 9:00:28 AM
Project: GP-Plant Hammond
Operator Name: Tristan Orndorff

Location Name: HGWA-1 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 22.49 ft** **Total Depth: 32.29 ft** **Initial Depth to Water: 18.63 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 27.49 ft** **Estimated Total Volume Pumped: 8.6 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.46 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883546**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Overcast, 80 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/2/2022 9:00 AM	00:00	7.03 pH	20.95 °C	637.61 µS/cm	4.24 mg/L	1.20 NTU	-36.3 mV	18.63 ft	200.00 ml/min
8/2/2022 9:05 AM	05:00	7.03 pH	18.97 °C	652.98 µS/cm	1.65 mg/L	1.11 NTU	-52.7 mV	19.00 ft	200.00 ml/min
8/2/2022 9:09 AM	08:34	7.03 pH	18.58 °C	663.62 µS/cm	0.78 mg/L	1.06 NTU	-62.5 mV	19.03 ft	200.00 ml/min
8/2/2022 9:14 AM	13:34	7.03 pH	18.50 °C	671.01 µS/cm	0.27 mg/L	0.92 NTU	-71.9 mV	19.05 ft	200.00 ml/min
8/2/2022 9:19 AM	18:34	7.03 pH	18.50 °C	673.17 µS/cm	0.18 mg/L	0.83 NTU	-76.3 mV	19.06 ft	200.00 ml/min
8/2/2022 9:24 AM	23:34	7.03 pH	18.50 °C	675.48 µS/cm	0.16 mg/L	0.70 NTU	-78.1 mV	19.06 ft	200.00 ml/min
8/2/2022 9:29 AM	28:34	7.03 pH	18.55 °C	675.72 µS/cm	0.14 mg/L	0.65 NTU	-78.4 mV	19.06 ft	200.00 ml/min
8/2/2022 9:34 AM	33:34	7.03 pH	18.58 °C	675.56 µS/cm	0.14 mg/L	0.51 NTU	-76.1 mV	19.07 ft	200.00 ml/min
8/2/2022 9:39 AM	38:34	7.03 pH	18.65 °C	677.86 µS/cm	0.14 mg/L	0.40 NTU	-75.1 mV	19.09 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-1	Grab.

Low-Flow Test Report:

Test Date / Time: 8/2/2022 11:54:00 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-2 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.95 ft** **Total Depth: 28.37 ft** **Initial Depth to Water: 10.58 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 22.95 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.1 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Cloudy, 80-90 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/2/2022 11:54 AM	00:00	4.67 pH	20.80 °C	253.71 µS/cm	0.83 mg/L	53.70 NTU	127.8 mV	10.65 ft	200.00 ml/min
8/2/2022 11:59 AM	05:00	4.62 pH	20.40 °C	261.39 µS/cm	0.39 mg/L	13.00 NTU	132.9 mV	10.65 ft	200.00 ml/min
8/2/2022 12:04 PM	10:00	4.59 pH	20.33 °C	262.13 µS/cm	0.22 mg/L	11.90 NTU	161.7 mV	10.67 ft	200.00 ml/min
8/2/2022 12:09 PM	15:00	4.59 pH	20.31 °C	263.18 µS/cm	0.17 mg/L	9.01 NTU	133.8 mV	10.67 ft	200.00 ml/min
8/2/2022 12:14 PM	20:00	4.58 pH	20.30 °C	262.89 µS/cm	0.14 mg/L	6.98 NTU	162.5 mV	10.65 ft	200.00 ml/min
8/2/2022 12:19 PM	25:00	4.57 pH	20.24 °C	262.79 µS/cm	0.13 mg/L	4.20 NTU	164.8 mV	10.67 ft	200.00 ml/min
8/2/2022 12:24 PM	30:00	4.57 pH	20.30 °C	262.99 µS/cm	0.12 mg/L	3.10 NTU	165.6 mV	10.68 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-2	Grab.

Low-Flow Test Report:

Test Date / Time: 8/2/2022 1:33:03 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-3 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 34.51 ft** **Total Depth: 45.32 ft** **Initial Depth to Water: 10.33 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 39.51 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Cloudy, 80-90 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/2/2022 1:33 PM	00:00	6.87 pH	21.37 °C	449.26 µS/cm	0.69 mg/L	12.50 NTU	20.7 mV	10.33 ft	200.00 ml/min
8/2/2022 1:38 PM	05:00	6.99 pH	20.39 °C	459.07 µS/cm	0.40 mg/L	27.20 NTU	-18.6 mV	10.33 ft	200.00 ml/min
8/2/2022 1:43 PM	10:00	7.02 pH	20.13 °C	457.06 µS/cm	0.21 mg/L	68.90 NTU	-32.4 mV	10.33 ft	200.00 ml/min
8/2/2022 1:48 PM	15:00	7.03 pH	20.13 °C	455.59 µS/cm	0.11 mg/L	16.30 NTU	-42.4 mV	10.33 ft	200.00 ml/min
8/2/2022 1:53 PM	20:00	7.02 pH	20.05 °C	455.72 µS/cm	0.09 mg/L	8.89 NTU	-31.8 mV	10.33 ft	200.00 ml/min
8/2/2022 1:58 PM	25:00	7.02 pH	19.99 °C	454.96 µS/cm	0.08 mg/L	5.40 NTU	-51.4 mV	10.33 ft	200.00 ml/min
8/2/2022 2:03 PM	30:00	7.02 pH	19.97 °C	453.40 µS/cm	0.08 mg/L	2.86 NTU	-54.1 mV	10.33 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-3	Grab.

Low-Flow Test Report:

Test Date / Time: 8/2/2022 8:58:46 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-43D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 51.25 ft** **Total Depth: 61.75 ft** **Initial Depth to Water: 18.46 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 56.25 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 3.22 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Cloudy, 80-90 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/2/2022 8:58 AM	00:00	7.21 pH	18.79 °C	501.75 µS/cm	0.90 mg/L	3.87 NTU	6.6 mV	20.08 ft	200.00 ml/min
8/2/2022 9:03 AM	05:00	7.17 pH	18.45 °C	503.84 µS/cm	0.83 mg/L	2.32 NTU	-7.5 mV	20.58 ft	200.00 ml/min
8/2/2022 9:08 AM	10:00	7.15 pH	18.35 °C	501.27 µS/cm	0.66 mg/L	1.14 NTU	-22.5 mV	21.06 ft	200.00 ml/min
8/2/2022 9:13 AM	15:00	7.15 pH	18.35 °C	499.69 µS/cm	0.48 mg/L	0.98 NTU	-21.7 mV	21.34 ft	200.00 ml/min
8/2/2022 9:18 AM	20:00	7.14 pH	18.35 °C	498.70 µS/cm	0.39 mg/L	0.88 NTU	-31.6 mV	21.47 ft	200.00 ml/min
8/2/2022 9:23 AM	25:00	7.15 pH	18.39 °C	496.27 µS/cm	0.32 mg/L	0.64 NTU	-39.6 mV	21.60 ft	200.00 ml/min
8/2/2022 9:28 AM	30:00	7.15 pH	18.41 °C	493.24 µS/cm	0.28 mg/L	0.71 NTU	-60.8 mV	21.68 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-43D	Grab.

Low-Flow Test Report:

Test Date / Time: 8/2/2022 9:23:04 AM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: HGWA-44D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 103.5 ft** **Total Depth: 111.42 ft** **Initial Depth to Water: 17.96 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 108.5 ft** **Estimated Total Volume Pumped: 17 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 4.4 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 884186**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Overcast, 80 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/2/2022 9:23 AM	00:00	7.86 pH	19.86 °C	651.13 µS/cm	0.97 mg/L	11.77 NTU	49.4 mV	18.90 ft	200.00 ml/min
8/2/2022 9:28 AM	05:00	7.89 pH	19.36 °C	636.97 µS/cm	0.44 mg/L	8.91 NTU	35.2 mV	19.21 ft	200.00 ml/min
8/2/2022 9:33 AM	10:00	7.90 pH	19.24 °C	616.45 µS/cm	0.31 mg/L	4.71 NTU	30.1 mV	20.10 ft	200.00 ml/min
8/2/2022 9:38 AM	15:00	7.91 pH	19.19 °C	610.73 µS/cm	0.25 mg/L	6.74 NTU	22.9 mV	20.30 ft	200.00 ml/min
8/2/2022 9:43 AM	20:00	7.90 pH	19.24 °C	603.41 µS/cm	0.21 mg/L	6.71 NTU	14.6 mV	20.70 ft	200.00 ml/min
8/2/2022 9:48 AM	25:00	7.91 pH	19.17 °C	597.68 µS/cm	0.19 mg/L	5.76 NTU	7.4 mV	20.95 ft	200.00 ml/min
8/2/2022 9:53 AM	30:00	7.91 pH	19.19 °C	593.78 µS/cm	0.17 mg/L	9.05 NTU	-2.2 mV	21.20 ft	200.00 ml/min
8/2/2022 9:58 AM	35:00	7.91 pH	19.24 °C	590.84 µS/cm	0.15 mg/L	6.55 NTU	-11.3 mV	21.35 ft	200.00 ml/min
8/2/2022 10:03 AM	40:00	7.91 pH	19.28 °C	589.33 µS/cm	0.14 mg/L	6.24 NTU	-18.8 mV	21.60 ft	200.00 ml/min
8/2/2022 10:08 AM	45:00	7.91 pH	19.24 °C	585.61 µS/cm	0.13 mg/L	5.53 NTU	-30.2 mV	21.75 ft	200.00 ml/min
8/2/2022 10:13 AM	50:00	7.91 pH	19.27 °C	584.58 µS/cm	0.12 mg/L	5.10 NTU	-39.4 mV	21.90 ft	200.00 ml/min
8/2/2022 10:18 AM	55:00	7.91 pH	19.24 °C	584.97 µS/cm	0.11 mg/L	5.24 NTU	-45.3 mV	22.05 ft	200.00 ml/min
8/2/2022 10:23 AM	01:00:00	7.91 pH	19.19 °C	581.00 µS/cm	0.10 mg/L	2.61 NTU	-57.3 mV	22.10 ft	200.00 ml/min

8/2/2022 10:28 AM	01:05:00	7.91 pH	19.24 °C	581.38 µS/cm	0.09 mg/L	4.98 NTU	-61.5 mV	22.25 ft	200.00 ml/min
8/2/2022 10:33 AM	01:10:00	7.91 pH	19.24 °C	577.68 µS/cm	0.08 mg/L	9.68 NTU	-75.0 mV	22.35 ft	200.00 ml/min
8/2/2022 10:38 AM	01:15:00	7.90 pH	19.23 °C	575.44 µS/cm	0.07 mg/L	2.99 NTU	-75.7 mV	22.36 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-44D	Grab.

Low-Flow Test Report:

Test Date / Time: 8/2/2022 11:55:36 AM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: HGWA-45D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 52.87 ft** **Total Depth: 62.75 ft** **Initial Depth to Water: 11.65 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 57.87 ft** **Estimated Total Volume Pumped: 8 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.75 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 884186**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Sunny, 85 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/2/2022 11:55 AM	00:00	7.46 pH	21.91 °C	513.43 µS/cm	0.18 mg/L	1.03 NTU	-76.5 mV	12.25 ft	200.00 ml/min
8/2/2022 12:00 PM	05:00	7.41 pH	21.12 °C	500.08 µS/cm	0.11 mg/L	0.96 NTU	-95.0 mV	12.35 ft	200.00 ml/min
8/2/2022 12:05 PM	10:00	7.39 pH	20.98 °C	487.94 µS/cm	0.09 mg/L	0.79 NTU	-113.5 mV	12.40 ft	200.00 ml/min
8/2/2022 12:10 PM	15:00	7.38 pH	20.91 °C	480.24 µS/cm	0.09 mg/L	0.78 NTU	-96.9 mV	12.40 ft	200.00 ml/min
8/2/2022 12:15 PM	20:00	7.38 pH	21.11 °C	474.45 µS/cm	0.09 mg/L	0.95 NTU	-95.5 mV	12.40 ft	200.00 ml/min
8/2/2022 12:20 PM	25:00	7.38 pH	21.15 °C	472.79 µS/cm	0.09 mg/L	0.83 NTU	-94.4 mV	12.40 ft	200.00 ml/min
8/2/2022 12:25 PM	30:00	7.39 pH	21.20 °C	469.32 µS/cm	0.10 mg/L	0.89 NTU	-93.8 mV	12.40 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-45D	Grab.

Low-Flow Test Report:

Test Date / Time: 8/2/2022 12:10:37 PM
Project: GP-Plant Hammond
Operator Name: Tristan Orndorff

Location Name: HGWA-122 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.76 ft** **Total Depth: 27.78 ft** **Initial Depth to Water: 12.74 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 22.76 ft** **Estimated Total Volume Pumped: 22.5 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.02 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883546**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Partially cloudy, 90 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/2/2022 12:10 PM	00:00	6.56 pH	20.69 °C	351.43 µS/cm	1.81 mg/L	1.52 NTU	27.4 mV	12.74 ft	200.00 ml/min
8/2/2022 12:15 PM	05:00	6.57 pH	20.70 °C	355.27 µS/cm	2.08 mg/L	1.22 NTU	34.9 mV	12.75 ft	200.00 ml/min
8/2/2022 12:20 PM	10:00	6.58 pH	20.72 °C	358.15 µS/cm	2.20 mg/L	1.08 NTU	38.1 mV	12.75 ft	200.00 ml/min
8/2/2022 12:25 PM	15:00	6.59 pH	20.68 °C	360.36 µS/cm	2.01 mg/L	0.94 NTU	39.9 mV	12.75 ft	200.00 ml/min
8/2/2022 12:30 PM	20:00	6.60 pH	20.67 °C	361.22 µS/cm	2.02 mg/L	0.85 NTU	41.0 mV	12.75 ft	200.00 ml/min
8/2/2022 12:35 PM	25:14	6.61 pH	20.61 °C	363.21 µS/cm	1.97 mg/L	0.74 NTU	37.8 mV	12.75 ft	200.00 ml/min
8/2/2022 12:36 PM	26:22	6.61 pH	20.44 °C	364.59 µS/cm	1.91 mg/L	0.69 NTU	39.5 mV	12.75 ft	200.00 ml/min
8/2/2022 12:41 PM	31:22	6.61 pH	20.63 °C	365.35 µS/cm	1.68 mg/L	0.50 NTU	42.0 mV	12.75 ft	200.00 ml/min
8/2/2022 12:46 PM	36:22	6.62 pH	20.68 °C	366.50 µS/cm	1.68 mg/L	0.57 NTU	43.8 mV	12.75 ft	200.00 ml/min
8/2/2022 12:51 PM	41:22	6.63 pH	20.71 °C	366.57 µS/cm	1.83 mg/L	1.01 NTU	45.1 mV	12.75 ft	200.00 ml/min
8/2/2022 12:56 PM	46:22	6.63 pH	20.64 °C	365.32 µS/cm	1.75 mg/L	0.56 NTU	46.2 mV	12.75 ft	200.00 ml/min
8/2/2022 1:01 PM	51:22	6.64 pH	20.57 °C	365.57 µS/cm	1.96 mg/L	0.53 NTU	47.0 mV	12.75 ft	200.00 ml/min
8/2/2022 1:06 PM	56:22	6.65 pH	20.61 °C	366.66 µS/cm	1.89 mg/L	0.53 NTU	47.8 mV	12.75 ft	200.00 ml/min

8/2/2022 1:11 PM	01:01:22	6.64 pH	20.64 °C	365.63 µS/cm	1.95 mg/L	0.49 NTU	49.1 mV	12.75 ft	200.00 ml/min
8/2/2022 1:16 PM	01:06:22	6.65 pH	20.63 °C	365.89 µS/cm	1.92 mg/L	0.46 NTU	49.6 mV	12.75 ft	200.00 ml/min
8/2/2022 1:21 PM	01:11:22	6.65 pH	20.62 °C	364.53 µS/cm	1.68 mg/L	0.43 NTU	50.6 mV	12.75 ft	200.00 ml/min
8/2/2022 1:26 PM	01:16:22	6.65 pH	20.55 °C	366.85 µS/cm	1.56 mg/L	0.45 NTU	51.5 mV	12.75 ft	200.00 ml/min
8/2/2022 1:31 PM	01:21:22	6.67 pH	20.50 °C	373.67 µS/cm	1.89 mg/L	0.54 NTU	52.2 mV	12.75 ft	200.00 ml/min
8/2/2022 1:36 PM	01:26:22	6.66 pH	20.60 °C	372.82 µS/cm	2.44 mg/L	0.42 NTU	49.8 mV	12.76 ft	200.00 ml/min
8/2/2022 1:41 PM	01:31:22	6.66 pH	20.55 °C	374.00 µS/cm	1.92 mg/L	0.49 NTU	50.5 mV	12.76 ft	200.00 ml/min
8/2/2022 1:46 PM	01:36:22	6.66 pH	20.62 °C	373.64 µS/cm	1.78 mg/L	0.86 NTU	54.5 mV	12.76 ft	200.00 ml/min
8/2/2022 1:51 PM	01:41:22	6.67 pH	20.60 °C	373.65 µS/cm	1.92 mg/L	0.50 NTU	51.6 mV	12.76 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWA-122	Grab.

Low-Flow Test Report:

Test Date / Time: 8/4/2022 3:12:07 PM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: HGWC-120 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 57.0 ft** **Total Depth: 67.65 ft** **Initial Depth to Water: 40.50 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 62.0 ft** **Estimated Total Volume Pumped: 9 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.1 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 884186**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Partly cloudy, 93 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/4/2022 3:12 PM	00:00	7.09 pH	23.77 °C	865.83 µS/cm	2.22 mg/L	0.99 NTU	-113.3 mV	40.54 ft	200.00 ml/min
8/4/2022 3:17 PM	05:00	6.92 pH	21.64 °C	910.41 µS/cm	0.75 mg/L	0.83 NTU	-61.1 mV	40.60 ft	200.00 ml/min
8/4/2022 3:22 PM	10:00	6.96 pH	21.48 °C	916.94 µS/cm	0.65 mg/L	0.68 NTU	-14.4 mV	40.60 ft	200.00 ml/min
8/4/2022 3:27 PM	15:00	6.95 pH	21.53 °C	917.32 µS/cm	0.50 mg/L	0.70 NTU	-1.8 mV	40.60 ft	200.00 ml/min
8/4/2022 3:32 PM	20:00	6.93 pH	21.38 °C	913.61 µS/cm	0.74 mg/L	0.73 NTU	-34.1 mV	40.60 ft	200.00 ml/min
8/4/2022 3:37 PM	25:00	6.93 pH	21.44 °C	918.33 µS/cm	0.64 mg/L	0.80 NTU	-10.8 mV	40.60 ft	200.00 ml/min
8/4/2022 3:42 PM	30:00	6.93 pH	21.11 °C	915.96 µS/cm	0.47 mg/L	0.87 NTU	-9.2 mV	40.60 ft	200.00 ml/min
8/4/2022 3:47 PM	35:00	6.93 pH	21.10 °C	917.58 µS/cm	0.43 mg/L	0.85 NTU	-8.8 mV	40.60 ft	200.00 ml/min
8/4/2022 3:52 PM	40:00	6.93 pH	21.07 °C	915.20 µS/cm	0.38 mg/L	0.62 NTU	-30.1 mV	40.60 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-120	Grab.

Low-Flow Test Report:

Test Date / Time: 8/4/2022 12:41:13 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-121A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 27.98 ft** **Total Depth: 41.34 ft** **Initial Depth to Water: 17.60 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 32.98 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.11 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Sunny, 85 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/4/2022 12:41 PM	00:00	6.79 pH	22.13 °C	880.67 µS/cm	1.11 mg/L	15.20 NTU	76.8 mV	17.68 ft	200.00 ml/min
8/4/2022 12:46 PM	05:00	6.74 pH	21.42 °C	913.74 µS/cm	0.60 mg/L	8.15 NTU	64.8 mV	17.71 ft	200.00 ml/min
8/4/2022 12:51 PM	10:00	6.77 pH	21.28 °C	920.25 µS/cm	0.45 mg/L	4.43 NTU	44.0 mV	17.71 ft	200.00 ml/min
8/4/2022 12:56 PM	15:00	6.78 pH	21.20 °C	925.77 µS/cm	0.38 mg/L	2.97 NTU	38.4 mV	17.71 ft	200.00 ml/min
8/4/2022 1:01 PM	20:00	6.79 pH	21.19 °C	923.64 µS/cm	0.29 mg/L	2.44 NTU	61.7 mV	17.71 ft	200.00 ml/min
8/4/2022 1:06 PM	25:00	6.80 pH	21.18 °C	925.16 µS/cm	0.23 mg/L	1.89 NTU	64.2 mV	17.71 ft	200.00 ml/min
8/4/2022 1:11 PM	30:00	6.80 pH	21.28 °C	927.94 µS/cm	0.18 mg/L	1.67 NTU	57.8 mV	17.71 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-121A	Grab.
Dup-3	Grab.

Low-Flow Test Report:

Test Date / Time: 8/4/2022 10:43:59 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-124 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 25.12 ft** **Total Depth: 35.22 ft** **Initial Depth to Water: 15.62 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 30.12 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.39 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Cloudy, 80 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/4/2022 10:43 AM	00:00	7.21 pH	20.34 °C	535.11 µS/cm	0.89 mg/L	16.70 NTU	-23.6 mV	16.01 ft	200.00 ml/min
8/4/2022 10:48 AM	05:00	7.19 pH	19.78 °C	543.74 µS/cm	0.37 mg/L	4.33 NTU	4.6 mV	16.01 ft	200.00 ml/min
8/4/2022 10:53 AM	10:00	7.19 pH	19.88 °C	544.06 µS/cm	0.28 mg/L	4.06 NTU	-8.2 mV	16.01 ft	200.00 ml/min
8/4/2022 10:58 AM	15:00	7.19 pH	19.90 °C	545.13 µS/cm	0.22 mg/L	2.51 NTU	29.1 mV	16.01 ft	200.00 ml/min
8/4/2022 11:03 AM	20:00	7.18 pH	19.95 °C	543.30 µS/cm	0.20 mg/L	2.30 NTU	35.7 mV	16.01 ft	200.00 ml/min
8/4/2022 11:08 AM	25:00	7.16 pH	19.95 °C	541.14 µS/cm	0.21 mg/L	1.74 NTU	18.8 mV	16.01 ft	200.00 ml/min
8/4/2022 11:13 AM	30:00	7.15 pH	20.08 °C	541.55 µS/cm	0.19 mg/L	1.92 NTU	43.4 mV	16.01 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-124	Grab.

Low-Flow Test Report:

Test Date / Time: 8/4/2022 3:05:42 PM
Project: GP-Plant Hammond
Operator Name: Tristan Orndorff

Location Name: HGWC-125 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 53.19 ft** **Total Depth: 63.83 ft** **Initial Depth to Water: 43.76 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 58.19 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.05 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883546**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Partly cloudy, 90 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/4/2022 3:05 PM	00:00	6.03 pH	21.49 °C	937.43 µS/cm	1.43 mg/L	5.71 NTU	83.8 mV	43.81 ft	200.00 ml/min
8/4/2022 3:10 PM	05:00	5.98 pH	20.98 °C	938.27 µS/cm	0.64 mg/L	4.43 NTU	129.3 mV	43.81 ft	200.00 ml/min
8/4/2022 3:15 PM	10:00	5.99 pH	20.81 °C	950.47 µS/cm	0.40 mg/L	2.06 NTU	124.5 mV	43.81 ft	200.00 ml/min
8/4/2022 3:20 PM	15:00	6.03 pH	20.99 °C	968.68 µS/cm	0.33 mg/L	2.33 NTU	119.8 mV	43.81 ft	200.00 ml/min
8/4/2022 3:25 PM	20:00	6.06 pH	20.88 °C	981.26 µS/cm	0.29 mg/L	1.20 NTU	115.9 mV	43.81 ft	200.00 ml/min
8/4/2022 3:30 PM	25:00	6.08 pH	20.99 °C	987.65 µS/cm	0.28 mg/L	0.84 NTU	87.2 mV	43.81 ft	200.00 ml/min
8/4/2022 3:35 PM	30:00	6.09 pH	20.77 °C	992.44 µS/cm	0.27 mg/L	0.80 NTU	110.7 mV	43.81 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-125	Grab.

Low-Flow Test Report:

Test Date / Time: 8/4/2022 2:59:55 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-126 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 58.52 ft** **Total Depth: 68.44 ft** **Initial Depth to Water: 40.79 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 63.52 ft** **Estimated Total Volume Pumped: 21.2 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 1.63 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 843593**

Test Notes:
Seven bottles: Full app. III and IV and Major Ions

Weather Conditions:
Cloudy, 85 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
8/4/2022 2:59 PM	00:00	6.59 pH	22.08 °C	841.13 µS/cm	2.31 mg/L	2.28 NTU	-15.3 mV	41.41 ft	200.00 ml/min
8/4/2022 3:04 PM	05:00	6.63 pH	22.89 °C	854.29 µS/cm	1.86 mg/L	2.32 NTU	-19.3 mV	41.43 ft	200.00 ml/min
8/4/2022 3:09 PM	10:00	6.68 pH	22.54 °C	841.25 µS/cm	1.29 mg/L	2.40 NTU	-18.3 mV	41.58 ft	200.00 ml/min
8/4/2022 3:14 PM	15:00	6.77 pH	22.40 °C	842.35 µS/cm	1.07 mg/L	2.42 NTU	-20.8 mV	41.68 ft	200.00 ml/min
8/4/2022 3:19 PM	20:00	6.83 pH	22.64 °C	843.94 µS/cm	0.84 mg/L	1.10 NTU	-23.1 mV	41.75 ft	200.00 ml/min
8/4/2022 3:24 PM	25:00	6.83 pH	23.76 °C	851.17 µS/cm	0.82 mg/L	1.67 NTU	-49.7 mV	41.60 ft	200.00 ml/min
8/4/2022 3:29 PM	30:00	6.84 pH	22.88 °C	865.35 µS/cm	0.71 mg/L	1.22 NTU	-51.6 mV	41.72 ft	200.00 ml/min
8/4/2022 3:34 PM	35:00	6.88 pH	22.31 °C	837.87 µS/cm	0.54 mg/L	0.81 NTU	-25.5 mV	41.83 ft	200.00 ml/min
8/4/2022 3:39 PM	40:00	6.89 pH	22.50 °C	847.18 µS/cm	0.55 mg/L	1.12 NTU	-28.9 mV	41.81 ft	200.00 ml/min
8/4/2022 3:45 PM	46:02	6.91 pH	22.22 °C	847.55 µS/cm	0.40 mg/L	0.52 NTU	-32.0 mV	41.93 ft	200.00 ml/min
8/4/2022 3:50 PM	51:02	6.93 pH	21.79 °C	848.41 µS/cm	0.34 mg/L	0.70 NTU	-28.5 mV	41.98 ft	200.00 ml/min
8/4/2022 3:55 PM	56:02	6.94 pH	22.62 °C	855.05 µS/cm	0.33 mg/L	0.62 NTU	-30.7 mV	42.00 ft	200.00 ml/min
8/4/2022 4:00 PM	01:01:02	6.94 pH	21.64 °C	846.35 µS/cm	0.30 mg/L	0.39 NTU	-29.8 mV	42.02 ft	200.00 ml/min

8/4/2022 4:05 PM	01:06:02	6.96 pH	22.54 °C	839.92 µS/cm	0.30 mg/L	1.12 NTU	-54.8 mV	41.99 ft	200.00 ml/min
8/4/2022 4:10 PM	01:11:02	7.00 pH	25.24 °C	855.04 µS/cm	0.38 mg/L	0.81 NTU	-60.7 mV	42.07 ft	200.00 ml/min
8/4/2022 4:15 PM	01:16:02	7.02 pH	21.59 °C	842.02 µS/cm	0.32 mg/L	0.34 NTU	-56.0 mV	42.14 ft	200.00 ml/min
8/4/2022 4:20 PM	01:21:02	7.00 pH	21.06 °C	845.53 µS/cm	0.29 mg/L	0.39 NTU	-54.3 mV	42.19 ft	200.00 ml/min
8/4/2022 4:25 PM	01:26:02	7.00 pH	21.24 °C	840.20 µS/cm	0.29 mg/L	0.33 NTU	-54.1 mV	42.29 ft	200.00 ml/min
8/4/2022 4:30 PM	01:31:02	7.00 pH	21.17 °C	842.37 µS/cm	0.28 mg/L	0.67 NTU	-28.3 mV	42.25 ft	200.00 ml/min
8/4/2022 4:35 PM	01:36:02	6.99 pH	20.88 °C	843.71 µS/cm	0.26 mg/L	0.34 NTU	-53.0 mV	42.35 ft	200.00 ml/min
8/4/2022 4:40 PM	01:41:02	6.99 pH	21.28 °C	845.72 µS/cm	0.23 mg/L	0.36 NTU	-28.4 mV	42.42 ft	200.00 ml/min

Samples

Sample ID:	Description:
HGWC-126	Grab.

January 2023

Low-Flow Test Report:

Test Date / Time: 1/24/2023 9:00:17 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-1 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 22.49 ft** **Total Depth: 32.49 ft** **Initial Depth to Water: 10.05 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 27.49 ft** **Estimated Total Volume Pumped: 4 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.63 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883533**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Sunny, 30 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
1/24/2023 9:00 AM	00:00	6.90 pH	13.36 °C	707.06 µS/cm	1.45 mg/L	1.50 NTU	-14.6 mV	10.55 ft	200.00 ml/min
1/24/2023 9:05 AM	05:00	6.76 pH	15.30 °C	684.25 µS/cm	0.82 mg/L	1.12 NTU	-38.1 mV	10.68 ft	200.00 ml/min
1/24/2023 9:10 AM	10:00	6.74 pH	15.59 °C	674.83 µS/cm	0.40 mg/L	0.85 NTU	-53.2 mV	10.69 ft	200.00 ml/min
1/24/2023 9:15 AM	15:00	6.75 pH	15.71 °C	670.89 µS/cm	0.17 mg/L	0.70 NTU	-62.5 mV	10.65 ft	200.00 ml/min
1/24/2023 9:20 AM	20:00	6.76 pH	15.84 °C	667.23 µS/cm	0.10 mg/L	0.57 NTU	-69.0 mV	10.67 ft	200.00 ml/min
1/24/2023 9:25 AM	25:00	6.75 pH	15.88 °C	664.63 µS/cm	0.07 mg/L	0.48 NTU	-73.7 mV	10.68 ft	200.00 ml/min
1/24/2023 9:30 AM	30:00	6.76 pH	15.98 °C	661.32 µS/cm	0.06 mg/L	0.84 NTU	-76.5 mV	10.68 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-1	Grab.

Low-Flow Test Report:

Test Date / Time: 1/24/2023 8:50:01 AM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: HGWA-2 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.95 ft** **Total Depth: 27.95 ft** **Initial Depth to Water: 7.96 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 22.95 ft** **Estimated Total Volume Pumped: 9 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 8.05 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 966090**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Sunny 28 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 5	
1/24/2023 8:50 AM	00:00	5.37 pH	15.92 °C	216.37 µS/cm	1.95 mg/L	74.60 NTU	164.4 mV	8.05 ft	200.00 ml/min
1/24/2023 8:55 AM	05:00	5.30 pH	16.05 °C	221.01 µS/cm	0.58 mg/L	16.40 NTU	133.9 mV	8.05 ft	200.00 ml/min
1/24/2023 9:00 AM	10:00	5.29 pH	16.10 °C	222.99 µS/cm	0.41 mg/L	9.97 NTU	119.9 mV	8.05 ft	200.00 ml/min
1/24/2023 9:05 AM	15:00	5.27 pH	16.19 °C	221.63 µS/cm	0.36 mg/L	6.72 NTU	109.2 mV	8.05 ft	200.00 ml/min
1/24/2023 9:10 AM	20:00	5.25 pH	16.19 °C	220.30 µS/cm	0.48 mg/L	5.21 NTU	101.6 mV	8.05 ft	200.00 ml/min
1/24/2023 9:15 AM	25:00	5.24 pH	16.28 °C	219.03 µS/cm	0.59 mg/L	4.43 NTU	95.7 mV	8.05 ft	200.00 ml/min
1/24/2023 9:20 AM	30:00	5.20 pH	16.36 °C	221.26 µS/cm	0.29 mg/L	3.35 NTU	93.3 mV	8.05 ft	200.00 ml/min
1/24/2023 9:25 AM	35:00	5.22 pH	16.37 °C	221.85 µS/cm	0.28 mg/L	2.68 NTU	87.9 mV	8.05 ft	200.00 ml/min
1/24/2023 9:30 AM	40:00	5.22 pH	16.38 °C	221.37 µS/cm	0.41 mg/L	2.49 NTU	86.4 mV	8.05 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-1	Grab.

Low-Flow Test Report:

Test Date / Time: 1/23/2023 4:14:39 PM
Project: GP-Plant Hammond
Operator Name: Connor Cain

Location Name: HGWA-3 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 34.51 ft** **Total Depth: 44.51 ft** **Initial Depth to Water: 7.53 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 39.51 ft** **Estimated Total Volume Pumped: 6 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 966090**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 5	
1/23/2023 4:14 PM	00:00	7.24 pH	15.85 °C	463.88 µS/cm	2.68 mg/L	7.83 NTU	-31.1 mV	7.53 ft	200.00 ml/min
1/23/2023 4:19 PM	05:00	7.31 pH	16.42 °C	459.57 µS/cm	0.98 mg/L	7.64 NTU	-49.6 mV	7.53 ft	200.00 ml/min
1/23/2023 4:24 PM	10:00	7.32 pH	16.54 °C	459.25 µS/cm	0.65 mg/L	4.84 NTU	-82.6 mV	7.53 ft	200.00 ml/min
1/23/2023 4:29 PM	15:00	7.32 pH	16.55 °C	459.71 µS/cm	0.38 mg/L	3.16 NTU	-88.0 mV	7.53 ft	200.00 ml/min
1/23/2023 4:34 PM	20:00	7.33 pH	16.67 °C	458.35 µS/cm	0.28 mg/L	2.46 NTU	-89.3 mV	7.53 ft	200.00 ml/min
1/23/2023 4:39 PM	25:00	7.34 pH	16.59 °C	457.27 µS/cm	0.23 mg/L	2.48 NTU	-58.6 mV	7.53 ft	200.00 ml/min
1/23/2023 4:44 PM	30:00	7.32 pH	16.58 °C	457.27 µS/cm	0.20 mg/L	1.02 NTU	-87.8 mV	7.53 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-3	Grab.

Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:20:06 AM
Project:GP-Plant Hammond
Operator Name: Connor Cain

Location Name: HGWA-43D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 51.25 ft** **Total Depth: 61.25 ft** **Initial Depth to Water: 10.02 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 22.95 ft** **Estimated Total Volume Pumped: 6 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 13.52 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 966090**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Sunny, 35 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 5	
1/24/2023 10:20 AM	00:00	7.50 pH	15.38 °C	453.99 µS/cm	1.76 mg/L	4.94 NTU	-100.1 mV	10.89 ft	200.00 ml/min
1/24/2023 10:25 AM	05:00	7.56 pH	16.19 °C	451.81 µS/cm	0.95 mg/L	8.69 NTU	-115.8 mV	11.73 ft	200.00 ml/min
1/24/2023 10:30 AM	10:00	7.58 pH	16.37 °C	450.15 µS/cm	0.92 mg/L	6.38 NTU	-114.4 mV	12.50 ft	200.00 ml/min
1/24/2023 10:35 AM	15:00	7.58 pH	16.41 °C	451.67 µS/cm	0.67 mg/L	5.04 NTU	-118.5 mV	12.97 ft	200.00 ml/min
1/24/2023 10:40 AM	20:00	7.57 pH	16.43 °C	442.00 µS/cm	0.61 mg/L	4.93 NTU	-115.4 mV	13.27 ft	200.00 ml/min
1/24/2023 10:45 AM	25:00	7.55 pH	16.59 °C	441.08 µS/cm	0.57 mg/L	4.49 NTU	-112.1 mV	13.43 ft	200.00 ml/min
1/24/2023 10:50 AM	30:00	7.56 pH	16.46 °C	437.56 µS/cm	0.67 mg/L	3.92 NTU	-111.9 mV	13.52 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-43D	Grab.

Low-Flow Test Report:

Test Date / Time: 1/24/2023 9:23:00 AM
Project: GP-Plant Hammond
Operator Name: Thomas Kessler

Location Name: HGWA-44D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 103.5 ft** **Total Depth: 113.5 ft** **Initial Depth to Water: 10.72 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 103.5 ft** **Estimated Total Volume Pumped: 10 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 100 ml/min** **Final Draw Down: 4.03 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 850724**

Test Notes:
Five bottles: Full app. III and IV.

Weather Conditions:
Foggy, 30 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 5	
1/24/2023 9:23 AM	00:00	8.16 pH	12.41 °C	55.30 µS/cm	1.94 mg/L	67.00 NTU	11.8 mV	10.95 ft	200.00 ml/min
1/24/2023 9:28 AM	05:00	8.20 pH	12.90 °C	54.41 µS/cm	1.25 mg/L	71.00 NTU	-37.5 mV	11.30 ft	200.00 ml/min
1/24/2023 9:33 AM	10:00	8.20 pH	12.94 °C	54.45 µS/cm	0.99 mg/L	12.80 NTU	-61.7 mV	11.70 ft	200.00 ml/min
1/24/2023 9:38 AM	15:00	8.21 pH	12.98 °C	54.49 µS/cm	0.89 mg/L	12.70 NTU	-75.1 mV	12.00 ft	200.00 ml/min
1/24/2023 9:43 AM	20:00	8.21 pH	13.21 °C	54.60 µS/cm	0.76 mg/L	26.50 NTU	-89.8 mV	12.30 ft	200.00 ml/min
1/24/2023 9:48 AM	25:00	8.21 pH	13.58 °C	54.65 µS/cm	0.95 mg/L	25.30 NTU	-118.5 mV	12.60 ft	200.00 ml/min
1/24/2023 9:53 AM	30:00	8.21 pH	13.70 °C	54.66 µS/cm	0.81 mg/L	31.20 NTU	-106.2 mV	12.80 ft	200.00 ml/min
1/24/2023 9:58 AM	35:00	8.20 pH	14.46 °C	55.60 µS/cm	0.71 mg/L	14.80 NTU	-131.2 mV	12.95 ft	200.00 ml/min
1/24/2023 10:03 AM	40:00	8.20 pH	14.70 °C	54.64 µS/cm	0.79 mg/L	16.80 NTU	-116.0 mV	13.10 ft	200.00 ml/min
1/24/2023 10:08 AM	45:00	8.20 pH	14.98 °C	54.61 µS/cm	0.67 mg/L	17.30 NTU	-118.3 mV	13.30 ft	200.00 ml/min
1/24/2023 10:13 AM	50:00	8.20 pH	15.19 °C	52.56 µS/cm	0.64 mg/L	16.30 NTU	-113.7 mV	13.35 ft	200.00 ml/min
1/24/2023 10:18 AM	55:00	8.21 pH	15.29 °C	54.53 µS/cm	0.47 mg/L	17.70 NTU	-121.9 mV	13.42 ft	200.00 ml/min
1/24/2023 10:23 AM	01:00:00	8.21 pH	15.26 °C	54.41 µS/cm	0.60 mg/L	14.20 NTU	-128.2 mV	13.55 ft	200.00 ml/min

1/24/2023 10:28 AM	01:05:00	8.21 pH	15.33 °C	54.56 µS/cm	0.75 mg/L	11.14 NTU	-133.1 mV	14.70 ft	200.00 ml/min
1/24/2023 10:33 AM	01:10:00	8.21 pH	15.32 °C	54.58 µS/cm	0.49 mg/L	14.75 NTU	-135.2 mV	14.75 ft	200.00 ml/min
1/24/2023 10:38 AM	01:15:00	8.21 pH	15.41 °C	54.48 µS/cm	0.47 mg/L	9.05 NTU	-137.7 mV	14.75 ft	200.00 ml/min
1/24/2023 10:43 AM	01:20:00	8.21 pH	15.49 °C	54.36 µS/cm	0.35 mg/L	8.27 NTU	-141.0 mV	14.75 ft	200.00 ml/min
1/24/2023 10:48 AM	01:25:00	8.21 pH	15.36 °C	54.54 µS/cm	0.42 mg/L	6.79 NTU	-141.9 mV	14.75 ft	200.00 ml/min
1/24/2023 10:53 AM	01:30:00	8.22 pH	15.16 °C	54.68 µS/cm	0.29 mg/L	4.41 NTU	-144.2 mV	14.75 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-44D	Grab.

Low-Flow Test Report:

Test Date / Time: 1/24/2023 10:28:12 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-45D **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 52.87 ft** **Total Depth: 62.87 ft** **Initial Depth to Water: 5.32 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 57.87 ft** **Estimated Total Volume Pumped: 4 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.75 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883533**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Sunny, 35 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
1/24/2023 10:28 AM	00:00	7.13 pH	16.34 °C	538.89 µS/cm	0.45 mg/L	3.77 NTU	-54.4 mV	5.98 ft	200.00 ml/min
1/24/2023 10:33 AM	05:00	7.13 pH	16.56 °C	529.18 µS/cm	0.17 mg/L	2.33 NTU	-96.6 mV	6.04 ft	200.00 ml/min
1/24/2023 10:38 AM	10:00	7.12 pH	16.67 °C	520.86 µS/cm	0.09 mg/L	1.92 NTU	-114.0 mV	6.01 ft	200.00 ml/min
1/24/2023 10:43 AM	15:00	7.14 pH	16.79 °C	515.47 µS/cm	0.06 mg/L	1.05 NTU	-129.7 mV	6.07 ft	200.00 ml/min
1/24/2023 10:48 AM	20:00	7.12 pH	16.87 °C	510.25 µS/cm	0.05 mg/L	0.87 NTU	-151.9 mV	6.07 ft	200.00 ml/min
1/24/2023 10:53 AM	25:00	7.14 pH	16.88 °C	505.77 µS/cm	0.05 mg/L	0.75 NTU	-173.1 mV	6.07 ft	200.00 ml/min
1/24/2023 10:58 AM	30:00	7.15 pH	16.95 °C	502.92 µS/cm	0.05 mg/L	0.69 NTU	-178.7 mV	6.07 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-45D	Grab.

Low-Flow Test Report:

Test Date / Time: 1/24/2023 11:49:45 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWA-122 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 17.76 ft** **Total Depth: 27.76 ft** **Initial Depth to Water: 6.29 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 22.76 ft** **Estimated Total Volume Pumped: 12 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.03 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883533**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Sunny, 40 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
1/24/2023 11:49 AM	00:00	6.43 pH	17.01 °C	314.18 µS/cm	5.98 mg/L	26.10 NTU	-15.2 mV	6.29 ft	200.00 ml/min
1/24/2023 11:54 AM	05:00	6.38 pH	16.93 °C	321.09 µS/cm	5.69 mg/L	13.10 NTU	-11.2 mV	6.34 ft	200.00 ml/min
1/24/2023 11:59 AM	10:00	6.38 pH	16.96 °C	329.27 µS/cm	5.41 mg/L	11.02 NTU	-7.8 mV	6.31 ft	200.00 ml/min
1/24/2023 12:04 PM	15:00	6.38 pH	17.03 °C	334.70 µS/cm	5.17 mg/L	8.81 NTU	-5.0 mV	6.30 ft	200.00 ml/min
1/24/2023 12:09 PM	20:00	6.38 pH	17.11 °C	337.95 µS/cm	4.98 mg/L	7.49 NTU	-3.1 mV	6.32 ft	200.00 ml/min
1/24/2023 12:14 PM	25:00	6.39 pH	17.10 °C	343.01 µS/cm	4.80 mg/L	5.36 NTU	-0.9 mV	6.30 ft	200.00 ml/min
1/24/2023 12:19 PM	30:00	6.39 pH	17.18 °C	346.03 µS/cm	4.63 mg/L	5.18 NTU	1.6 mV	6.32 ft	200.00 ml/min
1/24/2023 12:24 PM	35:00	6.40 pH	17.15 °C	349.84 µS/cm	4.47 mg/L	4.48 NTU	2.8 mV	6.34 ft	200.00 ml/min
1/24/2023 12:29 PM	40:00	6.40 pH	17.20 °C	354.73 µS/cm	4.33 mg/L	3.64 NTU	4.4 mV	6.32 ft	200.00 ml/min
1/24/2023 12:34 PM	45:00	6.41 pH	17.23 °C	358.93 µS/cm	4.17 mg/L	3.12 NTU	5.0 mV	6.33 ft	200.00 ml/min
1/24/2023 12:39 PM	50:00	6.42 pH	17.27 °C	357.84 µS/cm	4.04 mg/L	3.06 NTU	6.2 mV	6.32 ft	200.00 ml/min
1/24/2023 12:44 PM	55:00	6.43 pH	17.27 °C	362.26 µS/cm	3.92 mg/L	2.84 NTU	6.6 mV	6.32 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWA-122	Grab.

Low-Flow Test Report:

Test Date / Time: 1/25/2023 8:48:14 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-120 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 57 ft** **Total Depth: 67 ft** **Initial Depth to Water: 39.56 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 62 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.01 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883533**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Cloudy, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
1/25/2023 8:48 AM	00:00	6.80 pH	17.26 °C	946.86 µS/cm	0.27 mg/L	23.30 NTU	-12.6 mV	39.55 ft	200.00 ml/min
1/25/2023 8:53 AM	05:00	6.81 pH	17.45 °C	948.79 µS/cm	0.09 mg/L	12.31 NTU	-22.9 mV	39.59 ft	200.00 ml/min
1/25/2023 8:58 AM	10:00	6.83 pH	17.45 °C	950.70 µS/cm	0.05 mg/L	8.32 NTU	-25.6 mV	39.59 ft	200.00 ml/min
1/25/2023 9:03 AM	15:00	6.84 pH	17.50 °C	951.65 µS/cm	0.04 mg/L	6.64 NTU	-21.7 mV	39.58 ft	200.00 ml/min
1/25/2023 9:08 AM	20:00	6.86 pH	17.57 °C	952.67 µS/cm	0.04 mg/L	4.53 NTU	-31.1 mV	39.58 ft	200.00 ml/min
1/25/2023 9:13 AM	25:00	6.87 pH	17.52 °C	952.92 µS/cm	0.03 mg/L	3.33 NTU	-32.5 mV	39.57 ft	200.00 ml/min
1/25/2023 9:18 AM	30:00	6.87 pH	17.50 °C	952.25 µS/cm	0.03 mg/L	2.62 NTU	-25.5 mV	39.57 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-120	Grab.

Low-Flow Test Report:

Test Date / Time: 1/24/2023 4:05:31 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-121A **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 27.91 ft** **Total Depth: 37.91 ft** **Initial Depth to Water: 17.1 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 32.91 ft** **Estimated Total Volume Pumped: 7 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.13 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883533**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
1/24/2023 4:05 PM	00:00	6.73 pH	18.43 °C	935.05 µS/cm	1.67 mg/L	10.19 NTU	19.3 mV	17.18 ft	200.00 ml/min
1/24/2023 4:10 PM	05:00	6.71 pH	18.40 °C	956.00 µS/cm	0.72 mg/L	5.68 NTU	13.1 mV	17.23 ft	200.00 ml/min
1/24/2023 4:15 PM	10:00	6.71 pH	18.17 °C	966.49 µS/cm	0.48 mg/L	4.26 NTU	9.6 mV	17.23 ft	200.00 ml/min
1/24/2023 4:20 PM	15:00	6.70 pH	18.34 °C	968.71 µS/cm	0.34 mg/L	3.79 NTU	7.1 mV	17.23 ft	200.00 ml/min
1/24/2023 4:25 PM	20:00	6.70 pH	18.30 °C	971.16 µS/cm	0.26 mg/L	2.65 NTU	4.2 mV	17.23 ft	200.00 ml/min
1/24/2023 4:30 PM	25:00	6.71 pH	18.01 °C	974.20 µS/cm	0.21 mg/L	2.87 NTU	4.6 mV	17.23 ft	200.00 ml/min
1/24/2023 4:35 PM	30:00	6.75 pH	17.96 °C	975.53 µS/cm	0.19 mg/L	1.83 NTU	3.8 mV	17.23 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-121A	Grab.

Low-Flow Test Report:

Test Date / Time: 1/24/2023 2:28:10 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-124 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 25.12 ft** **Total Depth: 35.12 ft** **Initial Depth to Water: 10.25 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 30.12 ft** **Estimated Total Volume Pumped: 9 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 0.5 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883533**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Sunny, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
1/24/2023 2:28 PM	00:00	7.02 pH	17.68 °C	558.86 µS/cm	1.77 mg/L	18.40 NTU	-20.2 mV	10.73 ft	200.00 ml/min
1/24/2023 2:33 PM	05:00	7.05 pH	17.55 °C	561.01 µS/cm	1.18 mg/L	11.80 NTU	-16.1 mV	10.75 ft	200.00 ml/min
1/24/2023 2:38 PM	10:00	7.05 pH	17.64 °C	562.70 µS/cm	0.85 mg/L	9.91 NTU	-13.3 mV	10.74 ft	200.00 ml/min
1/24/2023 2:43 PM	15:00	7.05 pH	17.67 °C	562.11 µS/cm	0.63 mg/L	7.62 NTU	-11.4 mV	10.75 ft	200.00 ml/min
1/24/2023 2:48 PM	20:00	7.05 pH	17.63 °C	561.41 µS/cm	0.50 mg/L	8.60 NTU	-8.2 mV	10.75 ft	200.00 ml/min
1/24/2023 2:53 PM	25:00	7.05 pH	17.65 °C	558.16 µS/cm	0.43 mg/L	6.64 NTU	-9.0 mV	10.75 ft	200.00 ml/min
1/24/2023 2:58 PM	30:00	7.05 pH	17.63 °C	557.01 µS/cm	0.39 mg/L	5.75 NTU	-6.8 mV	10.75 ft	200.00 ml/min
1/24/2023 3:03 PM	35:00	7.04 pH	17.63 °C	553.93 µS/cm	0.36 mg/L	5.60 NTU	-8.0 mV	10.75 ft	200.00 ml/min
1/24/2023 3:08 PM	40:00	7.05 pH	17.72 °C	553.06 µS/cm	0.34 mg/L	4.71 NTU	-6.4 mV	10.75 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-124	Grab.

Low-Flow Test Report:

Test Date / Time: 1/25/2023 10:01:02 AM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-125 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 53.19 ft** **Total Depth: 63.19 ft** **Initial Depth to Water: 42.92 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 58.19 ft** **Estimated Total Volume Pumped: 11 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: -0.05 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883533**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Cloudy, 50 degrees F

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
1/25/2023 10:01 AM	00:00	6.35 pH	17.55 °C	1,031.5 µS/cm	3.90 mg/L	1.13 NTU	23.4 mV	42.92 ft	200.00 ml/min
1/25/2023 10:06 AM	05:00	6.31 pH	17.81 °C	1,032.0 µS/cm	3.06 mg/L	1.03 NTU	25.8 mV	42.92 ft	200.00 ml/min
1/25/2023 10:11 AM	10:00	6.31 pH	17.99 °C	1,034.0 µS/cm	2.73 mg/L	0.54 NTU	26.6 mV	42.92 ft	200.00 ml/min
1/25/2023 10:16 AM	15:00	6.31 pH	17.81 °C	1,039.3 µS/cm	2.41 mg/L	0.59 NTU	26.5 mV	42.92 ft	200.00 ml/min
1/25/2023 10:21 AM	20:00	6.31 pH	17.81 °C	1,039.6 µS/cm	2.19 mg/L	0.58 NTU	26.8 mV	42.92 ft	200.00 ml/min
1/25/2023 10:26 AM	25:00	6.31 pH	17.77 °C	1,039.4 µS/cm	2.03 mg/L	0.49 NTU	27.1 mV	42.91 ft	200.00 ml/min
1/25/2023 10:31 AM	30:00	6.31 pH	17.77 °C	1,040.3 µS/cm	1.90 mg/L	0.39 NTU	27.2 mV	42.90 ft	200.00 ml/min
1/25/2023 10:36 AM	35:00	6.31 pH	17.74 °C	1,038.5 µS/cm	1.80 mg/L	0.34 NTU	27.7 mV	42.90 ft	200.00 ml/min
1/25/2023 10:41 AM	40:00	6.32 pH	17.72 °C	1,043.5 µS/cm	0.20 mg/L	0.31 NTU	28.4 mV	42.89 ft	200.00 ml/min
1/25/2023 10:46 AM	45:00	6.32 pH	17.68 °C	1,047.6 µS/cm	0.19 mg/L	0.40 NTU	28.0 mV	42.88 ft	200.00 ml/min
1/25/2023 10:51 AM	50:00	6.32 pH	17.63 °C	1,045.9 µS/cm	0.18 mg/L	0.36 NTU	28.3 mV	42.87 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-125	Grab.
HAM-AP-3-FD-03	Grab.

Low-Flow Test Report:

Test Date / Time: 1/25/2023 12:13:31 PM
Project: GP-Plant Hammond
Operator Name: Anthony Szwast

Location Name: HGWC-126 **Well Diameter: 2 in** **Casing Type: PVC** **Screen Length: 10 ft** **Top of Screen: 58.52 ft** **Total Depth: 68.52 ft** **Initial Depth to Water: 39.51 ft**	**Pump Type: Bladder** **Tubing Type: Poly** **Pump Intake From TOC: 63.52 ft** **Estimated Total Volume Pumped: 9.4 liter** **Flow Cell Volume: 90 ml** **Final Flow Rate: 200 ml/min** **Final Draw Down: 1.94 ft**	**Instrument Used: Aqua TROLL 400** **Serial Number: 883533**

Test Notes:
Five bottles: Full App. III and IV.

Weather Conditions:
Cloudy and windy, 50 deg F.

Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth to Water	Flow
		+/- 0.1	+/- 0.5	+/- 5 %	+/- 0.2	+/- 5	+/- 10	+/- 0.3	
1/25/2023 12:13 PM	00:00	6.81 pH	18.39 °C	892.49 µS/cm	2.16 mg/L	12.00 NTU	-30.9 mV	40.38 ft	200.00 ml/min
1/25/2023 12:18 PM	05:00	6.84 pH	18.43 °C	896.20 µS/cm	1.79 mg/L	12.01 NTU	-40.8 mV	40.54 ft	200.00 ml/min
1/25/2023 12:23 PM	10:00	6.86 pH	18.43 °C	893.67 µS/cm	1.46 mg/L	11.98 NTU	-52.6 mV	40.77 ft	200.00 ml/min
1/25/2023 12:28 PM	15:00	6.87 pH	18.49 °C	890.30 µS/cm	1.24 mg/L	9.48 NTU	-58.0 mV	40.95 ft	200.00 ml/min
1/25/2023 12:33 PM	20:00	6.88 pH	18.23 °C	887.18 µS/cm	1.11 mg/L	7.56 NTU	-60.9 mV	41.05 ft	200.00 ml/min
1/25/2023 12:38 PM	25:00	6.88 pH	18.10 °C	883.23 µS/cm	1.01 mg/L	6.60 NTU	-62.8 mV	41.17 ft	200.00 ml/min
1/25/2023 12:43 PM	30:00	6.89 pH	18.17 °C	878.90 µS/cm	0.87 mg/L	5.51 NTU	-64.2 mV	41.27 ft	200.00 ml/min
1/25/2023 12:48 PM	35:00	6.89 pH	18.16 °C	877.58 µS/cm	0.79 mg/L	4.57 NTU	-65.4 mV	41.35 ft	200.00 ml/min
1/25/2023 12:53 PM	40:00	6.89 pH	18.57 °C	873.24 µS/cm	0.71 mg/L	3.70 NTU	-66.7 mV	41.44 ft	200.00 ml/min
1/25/2023 12:55 PM	41:43	6.89 pH	18.44 °C	874.47 µS/cm	0.69 mg/L	3.83 NTU	-61.3 mV	41.45 ft	200.00 ml/min

Samples

Sample ID:	Description:
HAM-HGWC-126	Grab.

CALIBRATION REPORTS

August 2022

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Anthony S. | Date: 8/11/2022 | Time (start): 720 | Time (finish): 735

smarTroll SN: 843593 | Turbidity Meter Type: LaMote 2020we | SN: 15 11-4111

Weather Conditions: Cloudy, 8890 °F | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193	24.03	4490	4589	4490	+/- 5 %	Yes / No	
pH (4)	08/22	24.03	4.00	4.09	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	21070193 08/22	30.29	4.00	3.97	4.00	+/- 0.1 SU	Yes / No	
pH (7)	21380102 04/23	24.26	7.00	7.38	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	21380102 04/23	30.26	7.00	6.77	7.00	+/- 0.1 SU	Yes / No	
pH (10)	20080056 04/23	24.42	10.00	10.53	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	20080056 04/23	29.74	10.00	9.72	10.00	+/- 0.1 SU	Yes / No	
ORP (mV)	21140143 04/23	24.35	228	235.7	228.0	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]		100	104.59	100.0	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU	[redacted]		0	0.07	—	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU	[redacted]		1.00	1.17	—	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU	[redacted]		10.00	10.35	—	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Tristan O | Date: 8/2/22 | Time (start): 718 | Time (finish): 740

smarTroll SN: 883546 | Turbidity Meter Type: LaMote 2020we | SN: 1603

Weather Conditions: Cloudy, 80° | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21470032 04/2023	25°	4490	4291	4490	+/- 5 %	Yes / No	
pH (4)			4.00	4.16	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check			4.00	4.08	4.00	+/- 0.1 SU	Yes / No	
pH (7)	21380102 04/23	24.1	7.00	7.16	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check			7.00	7.01	7.00	+/- 0.1 SU	Yes / No	
pH (10)	20080056 04/23	23.9	10.00	10.47	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check			10.00	9.95	10.00	+/- 0.1 SU	Yes / No	
ORP (mV)	21140143 04/23	24.2	228	225.1	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	101.54	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.88	0.00	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	0.99	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	10.18	9.99	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Kessler | Date: 8/2/2022 | Time (start): 0715 | Time (finish): ~~0730~~ 0745

smarTroll SN: 884186 | Turbidity Meter Type: LaMote 2020we | SN: 2289-2672

Weather Conditions: Cloudy, 75° | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21470032 04/23	25	4490	4537	4490	+/- 5 %	Yes No	
pH (4)			4.00	4.07	4.0	+/- 0.1 SU	Yes No	
Mid-Day pH (4) check			4.00	4.05		+/- 0.1 SU	Yes No	
pH (7)	21380652 04/23	23.91	7.00	7.25	7.0	+/- 0.1 SU	Yes No	
Mid-Day pH (7) check			7.00	7.00		+/- 0.1 SU	Yes No	
pH (10)	20060656 4/23	24.12	10.00	10.91	10.0	+/- 0.1 SU	Yes No	
Mid-Day pH (10) check		~~24.24~~	10.00	9.96		+/- 0.1 SU	Yes No	
ORP (mV)	21140143 4/23	24.24	228	215	228	+/- 20mV	Yes No	
DO (%) (1pt, 100% water saturated air cal)			100	104.83	100	+/- 6 % saturation	Yes No	
Turbidity 0 NTU			0	0.94	0	+/- 0.5 NTU	Yes No	
Turbidity 1 NTU			1.00	0.96	0.98	+/- 0.5 NTU	Yes No	
Turbidity 10 NTU			10.00	9.85	10.01	+/- 0.5 NTU	Yes No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Anthony S. | Date: 8/4/2022 | Time (start): 735 | Time (finish): 752

smarTroll SN: 843593 | Turbidity Meter Type: LaMote 2020we | SN: 1511-4111

Weather Conditions: Sunny, | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21070193 08/2022	25.40	4490	4563.2	4490	+/- 5 %	Yes / No	
pH (4)		26.24	4.00	4.17	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	21090193 08/2022	33.41	4.00	4.05	—	+/- 0.1 SU	Yes / No	
pH (7)	21380102 04/2023	27.11	7.00	7.14	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	21380102 04/2023	32.31	7.00	6.96	—	+/- 0.1 SU	Yes / No	
pH (10)	20890056 04/2023	27.43	10.00	10.06	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	20890056 04/2023	31.75	10.00	9.94	—	+/- 0.1 SU	Yes / No	
ORP (mV)	21140143 04/2023	27.55	228	224.5	228.0	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]		100	102.57	100.0	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.07	0.00	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	1.17	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	9.64	10.00	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Tristan O. | Date: 8/4/22 | Time (start): 7:35 | Time (finish): 750

smarTroll SN: 8835246 | Turbidity Meter Type: LaMote 2020we | SN: 1603

Weather Conditions: partly cloudy, high of 91 | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21470032 04/2023	22.91	4490	4457.3	4490	+/- 5 %	Yes / No	
pH (4)			4.00	3.97	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check			4.00	4.12	4.00	+/- 0.1 SU	Yes / No	
pH (7)	21380102 04/23	24.48	7.00	7.01	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check			7.00	6.98	7.00	+/- 0.1 SU	Yes / No	
pH (10)	20080056 04/23	24.85	10.00	9.99	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check			10.00	9.94	10.00	+/- 0.1 SU	Yes / No	
ORP (mV)	2140143 04/23	25.21	228	232.9	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]		100	101.01	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.3	0.	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	1.79	1.04	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	7.78	10.02	+/- 0.5 NTU	Yes / No	

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EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Viessler | Date: 8/4/22 | Time (start): 0730 | Time (finish): 0800

smarTroll SN: 884186 | Turbidity Meter Type: LaMote 2020we | SN: 22897672

Weather Conditions: overcast, 75° | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	21170032 04/23	24.41	4490	41504.9	44190	+/- 5 %	Yes / No	
pH (4)			4.00	4.01	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check			4.00	3.99		+/- 0.1 SU	Yes / No	
pH (7)	21380102 04/23	25.40	7.00	6.97	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check			7.00	7.02		+/- 0.1 SU	Yes / No	
pH (10)	20080656 4/23	25.84	10.00	9.94	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check			10.00	10.05		+/- 0.1 SU	Yes / No	
ORP (mV)	21140143 4/23	25.96	228	227.6	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	101.13	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.82	0.00	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	0.73	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	10.96	10.00	+/- 0.5 NTU	Yes / No	

January 2023

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Anthony S. | Date: 1/23/2023 | Time (start): 1540 | Time (finish): 1600

smarTroll SN: 833533 | Turbidity Meter Type: LaMote 2020we | SN: 7007-1416

Weather Conditions: 45°F, Partly cloudy | Facility and Unit: Hammond | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/2023	13.95	4490	3729.1	4490	+/- 5 %	(Yes) No	
pH (4)		14.13	4.00	3.95	4.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (4) check	—	—	~~4.00~~	—	—	+/- 0.1 SU	Yes No	
pH (7)	2216893 11/2023	14.09	7.00	7.34	7.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (7) check	—	—	~~7.00~~	—	—	+/- 0.1 SU	Yes No	
pH (10)	21320202 12/2023	14.40	10.00	11.09	10.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (10) check	—	—	~~10.00~~	—	—	+/- 0.1 SU	Yes No	
ORP (mV)	2139 0144 11/2023	14.22	228	246.4	228.0	+/- 20mV	(Yes) No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]	[redacted]	100	105.08	100.0	+/- 6 % saturation	(Yes) No	
Turbidity 0 NTU	[redacted]	[redacted]	0	0.00	—	+/- 0.5 NTU	(Yes) No	
Turbidity 1 NTU	[redacted]	[redacted]	1.00	0.44	0.71	+/- 0.5 NTU	(Yes) No	
Turbidity 10 NTU	[redacted]	[redacted]	10.00	11.07	10.06	+/- 0.5 NTU	(Yes) No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: C. CAIN | Date: 1/23/23 | Time (start): 1455 | Time (finish): 1520

smarTroll SN: 966090 | Turbidity Meter Type: LaMote 2020we | SN: 3009

Weather Conditions: Sunny 50F | Facility and Unit: Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/23	15.74	4490	4284	4490	+/- 5 %	Yes / No	
pH (4)			4.00	4.06	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check			4.00			+/- 0.1 SU	Yes / No	
pH (7)	22168893 11/23	16.55	7.00	7.37	7.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check			7.00			+/- 0.1 SU	Yes / No	
pH (10)	21232020Z 12/23	16.96	10.00	10.99	10	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check			10.00			+/- 0.1 SU	Yes / No	
ORP (mV)	21390149 11/23	16.72	228	243	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]		100	101.05	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.31	0.25	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	0.85	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	9.56	10.00	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Kessler | Date: 1/23/23 | Time (start): 1545 | Time (finish): 1555

smarTroll SN: 8507241 | Turbidity Meter Type: LaMote 2020we | SN: 5896-3715

Weather Conditions: Partly Cloudy, 50° | Facility and Unit: Plant Hammond | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/23	17.0°C	4490	4307.1	4490	+/- 5 %	Yes / No	
pH (4)			4.00	4.07	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	22165493 11/23	16.55	4.00	6.97	7.0	+/- 0.1 SU	Yes / No	
pH (7)			7.00			+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check			7.00			+/- 0.1 SU	Yes / No	
pH (10)	21320202 12/23	16.20	10.00	9.65	10.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check			10.00			+/- 0.1 SU	Yes / No	
ORP (mV)	21390144 11/23	15.43	228	241.1	225	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	99.8	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0	0	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	0.82	1.0	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	9.44	10.1	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Anthony S. | Date: 1/24/2023 | Time (start): 755 | Time (finish): 815

smarTroll SN: 883533 | Turbidity Meter Type: LaMote 2020we | SN: 7007-1416

Weather Conditions: Clear, 25°F | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/2023	-0.14	4490	4315.5	4490	+/- 5 %	(Yes) No	
pH (4)		-0.11	4.00	4.74	4.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (4) check	22250153 11/2023	19.36	4.00	3.37	4.00	+/- 0.1 SU	(Yes) No	
pH (7)	2216893 11/2023	0.41	7.00	7.31	7.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (7) check	2216893 11/2023	11.01	7.00	6.93	7.06	+/- 0.1 SU	(Yes) No	
pH (10)	21320202 12/2023	1.01	10.00	10.21	10.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (10) check	21320202 12/2023	10.55	10.00	10.07	10.14	+/- 0.1 SU	(Yes) No	
ORP (mV)	21340144 11/2023	1.11	228	248.0	228	+/- 20mV	(Yes) No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]		100	94.50	100.0	+/- 6 % saturation	(Yes) No	
Turbidity 0 NTU			0	0.00	—	+/- 0.5 NTU	(Yes) No	
Turbidity 1 NTU			1.00	0.45	0.59	+/- 0.5 NTU	(Yes) No	
Turbidity 10 NTU			10.00	11.79	9.99	+/- 0.5 NTU	(Yes) No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: C. CAIN

Date: 1/24/23

Time (start): 0716

Time (finish): 0735

smarTroll SN: 966040

Turbidity Meter Type: LaMote 2020we

SN: 709

Weather Conditions: Cloudy 28F

Facility and Unit: Plant Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	222501153 11/23	6.33	4490	~~3900~~	4490	+/- 5 %	Yes No	
pH (4)	↓		4.00	3.92 ~~3.96~~	4.0	+/- 0.1 SU	Yes No	
Mid-Day pH (4) check		/	4.00	~~3.90~~ 3.96	~~4.06~~ 4.0	+/- 0.1 SU	Yes No	
pH (7)	2216893 11/23	7.42	7.00	7.05	7.0	+/- 0.1 SU	Yes No	
Mid-Day pH (7) check	↓	/	7.00	7.06	7.0	+/- 0.1 SU	Yes No	
pH (10)	2123202.02 12/23	7.69	10.00	10.19	10.0	+/- 0.1 SU	Yes No	
Mid-Day pH (10) check	↓	/	10.00	9.97	10.0	+/- 0.1 SU	Yes No	
ORP (mV)	213901.44 11/23	7.59	228	242.8	228	+/- 20mV	Yes No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]	[redacted]	100	100.02	100	+/- 6 % saturation	Yes No	
Turbidity 0 NTU	[redacted]	[redacted]	0	0.35	0.0	+/- 0.5 NTU	Yes No	
Turbidity 1 NTU	[redacted]	[redacted]	1.00	0.72	1.00	+/- 0.5 NTU	Yes No	
Turbidity 10 NTU	[redacted]	[redacted]	10.00	10.83	10.00	+/- 0.5 NTU	Yes No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Kessler

Date: 11/24/2023

Time (start): 0700

Time (finish): 0750

smarTroll SN: 850724

Turbidity Meter Type: LaMote 2020we

SN: 5896-3715

Weather Conditions: Sunny, 27°F

Facility and Unit: Plant Hammond

Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22750153	7.55	4490	4166.0	4490	+/- 5 %	Yes / No	
pH (4)	11/23		4.00	3.91	4.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	2216893	9.22	4.00	4.01	—	+/- 0.1 SU	Yes / No	
pH (7)	2216893 11/23	9.76	7.00	7.00	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check			7.00	6.98	—	+/- 0.1 SU	Yes / No	
pH (10)	21270602 12/23	9.94	10.00	10.13	10.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check			10.00	10.00	—	+/- 0.1 SU	Yes / No	
ORP (mV)	213901441 11/23	10.09	228	240.4	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	100.4	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.11	0.00	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	1.07	1.00	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	10.34	9.98	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: A. Szwast | Date: 1/25/2023 | Time (start): 740 | Time (finish): 805

smarTroll SN: 883533 | Turbidity Meter Type: LaMote 2020we | SN: 7007-146

Weather Conditions: cloudy/rainy, 40-55°F | Facility and Unit: Plant Hammond | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153	10.08	4490	4562.2	4490	+/- 5 %	(Yes) No	
pH (4)	11/2023	10.16	4.00	3.89	4.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (4) check	22250153 11/2023	16.17	4.00	4.10	4.00	+/- 0.1 SU	(Yes) No	
pH (7)	2216893 11/2023	10.69	7.00	6.97	7.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (7) check	2216893 11/2023	15.08	7.00	7.10	7.00	+/- 0.1 SU	(Yes) No	
pH (10)	21320202 12/2023	10.73	10.00	10.09	10.00	+/- 0.1 SU	(Yes) No	
Mid-Day pH (10) check	21320202 12/2023	14.62	10.00	10.13	10.00	+/- 0.1 SU	(Yes) No	
ORP (mV)	21390144 11/2023	10.82	228	211.6	228	+/- 20mV	(Yes) No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]		100	103.70	100.0	+/- 6 % saturation	(Yes) No	
Turbidity 0 NTU			0	0.02	—	+/- 0.5 NTU	(Yes) No	
Turbidity 1 NTU			1.00	0.46	0.86	+/- 0.5 NTU	(Yes) No	
Turbidity 10 NTU			10.00	11.68	10.09	+/- 0.5 NTU	(Yes) No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: C. CAIN | Date: 1/25/23 | Time (start): 0745 | Time (finish): 0820

smarTroll SN: 966040 | Turbidity Meter Type: LaMote 2020we | SN: 7009

Weather Conditions: Cloudy 55 | Facility and Unit: Plant Hammond | Project No.: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	22250153 11/23	12.89	4490	3948	4490	+/- 5 %	Yes / No	
pH (4)	↓		4.00	4.13	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	↓	16.78	4.00	4.08	4.0	+/- 0.1 SU	Yes / No	
pH (7)	22168893 11/23	13.36	7.00	7.07	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	↓	16.14	7.00	7.04	7.0	+/- 0.1 SU	Yes / No	
pH (10)	21232 0202 12/23	12.92	10.00	10.11	10.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	↓	15.48	10.00	10.04	10.0	+/- 0.1 SU	Yes / No	
ORP (mV)	21390144 11/23	13.03	228	217.5	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)	[redacted]		100	100.06	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU	[redacted]		0	0.02	0.0	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU	[redacted]		1.00	0.76	1.0	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU	[redacted]		10.00	9.98	10.0	+/- 0.5 NTU	Yes / No	

Geosyntec consultants

EQUIPMENT CALIBRATION LOG

Field Technician: Thomas Hessler | Date: 1/25/2023 | Time (start): 0730 | Time (finish): 0815

smarTroll SN: 656724 | Turbidity Meter Type: LaMote 2020we | SN: 5896-3703

Weather Conditions: Sunny/Cloudy, 40° | Facility and Unit: Plant Hammond | Project No: GW6581

Calibration log

	Standard Lot # / Date of Expiration	Temp of Standard (°C)	Value of Standard	Initial Reading	Post-Cal Reading	Acceptable Range	Pass?	Comments
Specific Conductance (µS/cm)	2278053	13.26	4490	4477.9	4490	+/- 5 %	Yes / No	
pH (4)	11/23		4.00	4.06	4.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (4) check	—		4.00	4.05	—	+/- 0.1 SU	Yes / No	
pH (7)	2216543 11/23	14.03	7.00	7.07	7.00	+/- 0.1 SU	Yes / No	
Mid-Day pH (7) check	—		7.00	6.99	—	+/- 0.1 SU	Yes / No	
pH (10)	2132062 12/23		10.00	10.09	10.0	+/- 0.1 SU	Yes / No	
Mid-Day pH (10) check	—		10.00	9.98	—	+/- 0.1 SU	Yes / No	
ORP (mV)	2139014/4 11/23	14.22	228	229.6	228	+/- 20mV	Yes / No	
DO (%) (1pt, 100% water saturated air cal)			100	100.62	100	+/- 6 % saturation	Yes / No	
Turbidity 0 NTU			0	0.71	0	+/- 0.5 NTU	Yes / No	
Turbidity 1 NTU			1.00	0.87	0.98	+/- 0.5 NTU	Yes / No	
Turbidity 10 NTU			10.00	10.53	9.97	+/- 0.5 NTU	Yes / No	

APPENDIX C

Statistical Analysis Reports

August 2022

GROUNDWATER STATS CONSULTING

February 28, 2023

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd. NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant Hammond Ash Pond 3 (AP-3)
August 2022 Statistical Analysis

Dear Ms. Jurinko,

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 of groundwater data for Georgia Power Company's Plant Hammond AP-3. 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 began for the Coal Combustion Residuals (CCR) program in 2016, and at least 8 background samples have been collected at each of the groundwater monitoring wells, except for those discussed below. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** HGWA-1, HGWA-2, HGWA-3, HGWA-43D, HGWA-44D, HGWA-45D, and HGWA-122
- **Downgradient wells:** HGWC-120, HGWC-121A, HGWC-124, HGWC-125, and HGWC-126

New upgradient wells HGWA-43D, HGWA-44D, and HGWA-45D were first sampled in September 2020 and all available data are included in construction of interwell prediction limits. As requested by Southern Company Services, upgradient wells with 2 or more

samples will be incorporated into the statistical analyses. Sampling began at new downgradient wells HGWC-125 and HGWC-126 in May 2020 and also have at least 8 rounds of background sampling; therefore, they are statistically analyzed in this report with prediction limits and confidence intervals.

Assessment wells MW-32, MW-41, and MW-46D were reclassified as piezometers and, along with piezometer MW-39, are no longer sampled. Therefore, these piezometers are not included in this analysis.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program consists of the following constituents listed below. The terms "constituent" and "parameter" are interchangeable.

- **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

When no detections are present in downgradient wells for a given constituent, statistical analyses are not required. A summary of downgradient Appendix IV well/constituent pairs containing 100% non-detects follows this letter. These well/constituent pairs were included in the time series and box plots, but no formal statistics were required.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. In the case of lithium, historical reporting limits vary among the wells. Therefore, the reporting limit of 0.03 mg/L was substituted across all wells, which is the most recent reporting limit provided by the laboratory.

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).

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

Statistical Methods – Appendix III Parameters

Appendix III parameters are evaluated using interwell prediction limits combined with a 1-of-2 resample plan for the following constituents: boron, calcium, chloride, fluoride, pH, sulfate, and TDS.

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

- No statistical analyses are required on wells and analytes containing 100% non-detects (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.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit (for data sets containing <15% non-detects as described above) are shown as the original reporting limit.

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, an earlier portion of data may require deselection 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. When this step is required a summary of any adjusted records will be provided. No records were adjusted at this time.

Summary of Background Screening Conducted in March 2019

Outlier Analysis

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. Suspected outliers at all wells for Appendix III and Appendix 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. Those findings were submitted with the screening report.

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

Of the outliers identified by Tukey's method, only one outlier was flagged for TDS in upgradient well HGWA-112. All other values are similar to remaining measurements within a given well or neighboring wells or were reported non-detects. The outlier summary follows this report (Figure C).

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well.

Seasonality

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 each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed one statistically significant decreasing trend for the Appendix III parameters. However, the trend noted was relatively low in magnitude when compared to average concentrations, and the background time period is short; therefore, no adjustments were made to the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) is typically used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. However, interwell methods are currently implemented in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

Statistical Evaluation 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 and a summary of previously flagged outliers follows this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed for each Appendix III parameter using all historical upgradient well data through August 2022 (Figure D). Interwell prediction limits use all available 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 initial exceedances 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 the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary. If no resample is collected, the initial exceedance is automatically confirmed. For Appendix III parameters, several prediction limit exceedances were identified. A summary table of the interwell prediction limits follows this letter. Exceedances were identified for the following well/constituent pairs:

- Boron: HGWC-120, HGWC-121A, and HGWC-125
- Calcium: HGWC-120, HGWC-121A, HGWC-125, and HGWC-126
- Sulfate: HGWC-120, HGWC-121A, and HGWC-125
- TDS: HGWC-121A and HGWC-125

Trend Test Evaluation – Appendix III

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 well data 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. When trends are present in upgradient wells it is an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Boron: HGWA-2 (upgradient)
- Calcium: HGWA-3 (upgradient) and HGWC-126
- Sulfate: HGWA-2 (upgradient)

Decreasing trends:

- Boron: HGWA-122 (upgradient), HGWC-120, and HGWC-121A
- Calcium: HGWA-121A
- Sulfate: HGWA-122 (upgradient), HGWC-120, and HGWC-121A
- TDS: HGWC-121A

Statistical Methods – Appendix IV Parameters

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (MCL or CCR rule-specified limits) or site-specific limits that are based on upgradient background groundwater quality. Site-specific background limits are determined using tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. The methods are described below.

Statistical Evaluation of Appendix IV Parameters – August 2022

For 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. Well/constituent pairs containing 100% non-detects do not require analyses. Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

First, interwell upper 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 F). As mentioned above, a reporting limit of 0.03 mg/L was substituted across all wells for lithium. 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.

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 G).

Confidence Intervals

To complete the statistical comparison of downgradient well data to GWPS, confidence intervals were constructed for the Appendix IV constituents in each downgradient well with detections. Note that a GWPS is established for each Appendix IV constituent. However, since there are 100% non-detects for beryllium, cadmium, and thallium in downgradient wells, no confidence intervals were required for these constituents.

The Sanitas software was used to calculate both the tolerance limits and the confidence intervals. Confidence intervals were compared to the GWPS prepared as described above (Figure H). 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. A

summary of the confidence intervals follows this letter and no exceedances were identified.

Trend Test Evaluation – Appendix IV

While this step was not necessary during this report, data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable. Upgradient wells are included in the trend analyses when a minimum of 5 samples are available to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of natural variability in groundwater quality unrelated to practices at the site.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Hammond AP-3. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Tristan Clark
Groundwater Analyst

Andrew Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient

Analysis Run 11/2/2022 12:37 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-3

Antimony (mg/L)
HGWC-124

Beryllium (mg/L)
HGWC-120, HGWC-121A, HGWC-124, HGWC-125, HGWC-126

Cadmium (mg/L)
HGWC-120, HGWC-121A, HGWC-124, HGWC-125, HGWC-126

Cobalt (mg/L)
HGWC-124, HGWC-126

Mercury (mg/L)
HGWC-121A, HGWC-125, HGWC-126

Molybdenum (mg/L)
HGWC-121A, HGWC-126

Selenium (mg/L)
HGWC-125, HGWC-126

Thallium (mg/L)
HGWC-120, HGWC-121A, HGWC-124, HGWC-125, HGWC-126

Interwell Prediction Limit - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 6:56 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-120**	**0.44**	**n/a**	**8/4/2022**	**1**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-121A**	**0.44**	**n/a**	**8/4/2022**	**1.8**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-125**	**0.44**	**n/a**	**8/4/2022**	**1.4**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-120**	**138**	**n/a**	**8/4/2022**	**173**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-121A**	**138**	**n/a**	**8/4/2022**	**160**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-125**	**138**	**n/a**	**8/4/2022**	**170**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-126**	**138**	**n/a**	**8/4/2022**	**141**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-120**	**88.2**	**n/a**	**8/4/2022**	**230**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-121A**	**88.2**	**n/a**	**8/4/2022**	**162**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-125**	**88.2**	**n/a**	**8/4/2022**	**331**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-121A**	**632**	**n/a**	**8/4/2022**	**640**	**Yes**	**99**	**0**	**n/a**	**n/a**	**0.0001978**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-125**	**632**	**n/a**	**8/4/2022**	**706**	**Yes**	**99**	**0**	**n/a**	**n/a**	**0.0001978**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limit - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 6:56 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-120**	**0.44**	**n/a**	**8/4/2022**	**1**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-121A**	**0.44**	**n/a**	**8/4/2022**	**1.8**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	HGWC-124	0.44	n/a	8/4/2022	0.36	No	100	5	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Boron (mg/L)	**HGWC-125**	**0.44**	**n/a**	**8/4/2022**	**1.4**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	HGWC-126	0.44	n/a	8/4/2022	0.023J	No	100	5	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Calcium (mg/L)	**HGWC-120**	**138**	**n/a**	**8/4/2022**	**173**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-121A**	**138**	**n/a**	**8/4/2022**	**160**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	HGWC-124	138	n/a	8/4/2022	103	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Calcium (mg/L)	**HGWC-125**	**138**	**n/a**	**8/4/2022**	**170**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-126**	**138**	**n/a**	**8/4/2022**	**141**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	HGWC-120	44.8	n/a	8/4/2022	2.7	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-121A	44.8	n/a	8/4/2022	15.4	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-124	44.8	n/a	8/4/2022	2.6	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-125	44.8	n/a	8/4/2022	11.6	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-126	44.8	n/a	8/4/2022	8.7	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-120	0.96	n/a	8/4/2022	0.38	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-121A	0.96	n/a	8/4/2022	0.18	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-124	0.96	n/a	8/4/2022	0.074J	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-125	0.96	n/a	8/4/2022	0.15	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-126	0.96	n/a	8/4/2022	0.5	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-120	8.25	4.57	8/4/2022	6.93	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-121A	8.25	4.57	8/4/2022	6.8	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-124	8.25	4.57	8/4/2022	7.15	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-125	8.25	4.57	8/4/2022	6.09	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-126	8.25	4.57	8/4/2022	6.99	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-120**	**88.2**	**n/a**	**8/4/2022**	**230**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-121A**	**88.2**	**n/a**	**8/4/2022**	**162**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	HGWC-124	88.2	n/a	8/4/2022	73.1	No	100	1	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-125**	**88.2**	**n/a**	**8/4/2022**	**331**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	HGWC-126	88.2	n/a	8/4/2022	68.3	No	100	1	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-120	632	n/a	8/4/2022	632	No	99	0	n/a	n/a	0.0001978	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**HGWC-121A**	**632**	**n/a**	**8/4/2022**	**640**	**Yes**	**99**	**0**	**n/a**	**n/a**	**0.0001978**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	HGWC-124	632	n/a	8/4/2022	334	No	99	0	n/a	n/a	0.0001978	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**HGWC-125**	**632**	**n/a**	**8/4/2022**	**706**	**Yes**	**99**	**0**	**n/a**	**n/a**	**0.0001978**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	HGWC-126	632	n/a	8/4/2022	510	No	99	0	n/a	n/a	0.0001978	NP Inter (normality) 1 of 2

Appendix III Trend Test - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 7:00 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**HGWA-122 (bg)**	**-0.02454**	**-84**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWA-2 (bg)**	**0.002545**	**111**	**74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-120**	**-0.04213**	**-73**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-121A**	**-0.2499**	**-96**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-3 (bg)**	**2.436**	**99**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWC-121A**	**-5.681**	**-68**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWC-126**	**13.84**	**40**	**34**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-122 (bg)**	**-1.483**	**-76**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.619**	**101**	**74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-120**	**-16.59**	**-98**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-121A**	**-25.95**	**-96**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-121A**	**-52.05**	**-94**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Test - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 7:00 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWA-1 (bg)	-0.0004303	-27	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWA-122 (bg)**	**-0.02454**	**-84**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWA-2 (bg)**	**0.002545**	**111**	**74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWA-3 (bg)	0.0003378	22	81	No	20	20	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-43D (bg)	-0.01038	-16	-21	No	8	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-44D (bg)	0.1016	13	21	No	8	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-45D (bg)	-0.01353	-11	-21	No	8	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWC-120**	**-0.04213**	**-73**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-121A**	**-0.2499**	**-96**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWC-125	0	8	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-1 (bg)	2.653	61	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-122 (bg)	-2.468	-40	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-2 (bg)	0.7505	51	74	No	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWA-3 (bg)**	**2.436**	**99**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWA-43D (bg)	-3.927	-14	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-44D (bg)	-5.744	-14	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-45D (bg)	-3.572	-18	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-120	1.46	33	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWC-121A**	**-5.681**	**-68**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWC-125	8.147	10	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWC-126**	**13.84**	**40**	**34**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-1 (bg)	1.779	35	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWA-122 (bg)**	**-1.483**	**-76**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.619**	**101**	**74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-3 (bg)	0.673	52	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-43D (bg)	-1.657	-20	-21	No	8	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-44D (bg)	4.085	8	21	No	8	12.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-45D (bg)	-4.804	-12	-21	No	8	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWC-120**	**-16.59**	**-98**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-121A**	**-25.95**	**-96**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWC-125	-27.92	-21	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-1 (bg)	3.538	14	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-122 (bg)	-11.75	-48	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-2 (bg)	1.249	6	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-3 (bg)	1.162	17	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-43D (bg)	-11.77	-8	-21	No	8	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-44D (bg)	59.96	18	21	No	8	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-45D (bg)	-7.51	-8	-21	No	8	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWC-121A**	**-52.05**	**-94**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWC-125	-33.98	-12	-34	No	11	0	n/a	n/a	0.01	NP

Upper Tolerance Limits

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 7:13 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	99	n/a	n/a	84.85	n/a	n/a	0.006232	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	97	n/a	n/a	70.1	n/a	n/a	0.006905	NP Inter(NDs)
Barium (mg/L)	n/a	0.64	n/a	n/a	n/a	107	n/a	n/a	0.9346	n/a	n/a	0.004135	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	99	n/a	n/a	82.83	n/a	n/a	0.006232	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	97	n/a	n/a	88.66	n/a	n/a	0.006905	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0079	n/a	n/a	n/a	101	n/a	n/a	78.22	n/a	n/a	0.005625	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.038	n/a	n/a	n/a	107	n/a	n/a	77.57	n/a	n/a	0.004135	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.648	n/a	n/a	n/a	100	0.787	0.2581	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.96	n/a	n/a	n/a	114	n/a	n/a	24.56	n/a	n/a	0.002887	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	101	n/a	n/a	67.33	n/a	n/a	0.005625	NP Inter(NDs)
Lithium (mg/L)	n/a	0.048	n/a	n/a	n/a	107	n/a	n/a	32.71	n/a	n/a	0.004135	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	79	n/a	n/a	93.67	n/a	n/a	0.01738	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	109	n/a	n/a	66.97	n/a	n/a	0.003731	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	97	n/a	n/a	97.94	n/a	n/a	0.006905	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	97	n/a	n/a	98.97	n/a	n/a	0.006905	NP Inter(NDs)

PLANT HAMMOND AP-3 GWPS				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.64	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0079	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.038	0.038
Combined Radium, Total (pCi/L)	5		1.65	5
Fluoride, Total (mg/L)	4		0.96	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.048	0.048
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indidcates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Statard*

Confidence Interval - All Results (No Significant)

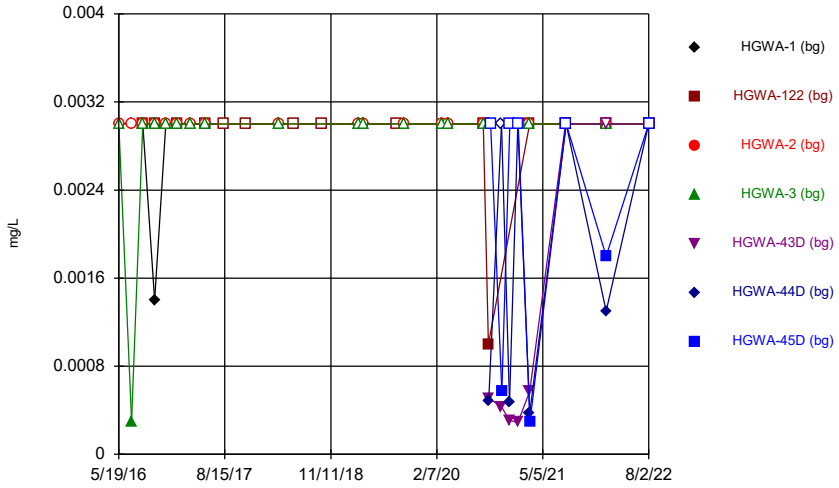
Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 11/1/2022, 9:54 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	HGWC-120	0.003	0.0018	0.006	No	15	93.33	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-121A	0.003	0.0016	0.006	No	15	93.33	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-124	0.003	0.003	0.006	No	15	100	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-125	0.003	0.00061	0.006	No	11	81.82	No	0.006	NP (NDs)
Antimony (mg/L)	HGWC-126	0.003	0.00043	0.006	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	HGWC-120	0.005	0.001	0.01	No	13	61.54	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-121A	0.005	0.0014	0.01	No	13	76.92	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-124	0.005	0.0006	0.01	No	13	92.31	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-125	0.005	0.0014	0.01	No	10	70	No	0.011	NP (NDs)
Arsenic (mg/L)	HGWC-126	0.005	0.00091	0.01	No	10	70	No	0.011	NP (NDs)
Barium (mg/L)	HGWC-120	0.05171	0.04652	2	No	17	0	No	0.01	Param.
Barium (mg/L)	HGWC-121A	0.08026	0.06462	2	No	17	0	No	0.01	Param.
Barium (mg/L)	HGWC-124	0.0728	0.06747	2	No	17	0	No	0.01	Param.
Barium (mg/L)	HGWC-125	0.04629	0.0408	2	No	11	0	No	0.01	Param.
Barium (mg/L)	HGWC-126	0.2562	0.2275	2	No	11	0	No	0.01	Param.
Chromium (mg/L)	HGWC-120	0.005	0.0015	0.1	No	17	82.35	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-121A	0.005	0.0005	0.1	No	17	94.12	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-124	0.005	0.00051	0.1	No	17	88.24	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-125	0.005	0.00058	0.1	No	11	72.73	No	0.006	NP (NDs)
Chromium (mg/L)	HGWC-126	0.005	0.005	0.1	No	11	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	HGWC-120	0.004435	0.002982	0.038	No	17	0	sqrt(x)	0.01	Param.
Cobalt (mg/L)	HGWC-121A	0.005	0.0005	0.038	No	17	82.35	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-124	0.005	0.005	0.038	No	17	100	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-125	0.01265	0.007679	0.038	No	11	0	No	0.01	Param.
Cobalt (mg/L)	HGWC-126	0.005	0.005	0.038	No	11	100	No	0.006	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	HGWC-120	1.087	0.6342	5	No	16	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-121A	1.169	0.492	5	No	16	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-124	0.8959	0.5525	5	No	16	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-125	1.423	0.6226	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-126	1.687	0.9815	5	No	10	0	No	0.01	Param.
Fluoride (mg/L)	HGWC-120	1	0.37	4	No	20	0	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-121A	0.2	0.14	4	No	18	0	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-124	0.11	0.05	4	No	18	38.89	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-125	0.1686	0.115	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	HGWC-126	0.4938	0.4389	4	No	11	0	No	0.01	Param.
Lead (mg/L)	HGWC-120	0.001	0.0002	0.015	No	17	82.35	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-121A	0.001	0.00036	0.015	No	17	82.35	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-124	0.001	0.00008	0.015	No	17	70.59	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-125	0.001	0.000047	0.015	No	11	54.55	No	0.006	NP (NDs)
Lead (mg/L)	HGWC-126	0.001	0.000045	0.015	No	11	72.73	No	0.006	NP (NDs)
Lithium (mg/L)	HGWC-120	0.0337	0.023	0.048	No	17	0	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-121A	0.00897	0.007677	0.048	No	17	0	No	0.01	Param.
Lithium (mg/L)	HGWC-124	0.015	0.001	0.048	No	17	29.41	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-125	0.005757	0.00377	0.048	No	11	0	No	0.01	Param.
Lithium (mg/L)	HGWC-126	0.004109	0.003236	0.048	No	11	0	No	0.01	Param.
Mercury (mg/L)	HGWC-120	0.0002	0.00007	0.002	No	13	84.62	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-121A	0.0002	0.0002	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-124	0.0002	0.000051	0.002	No	13	92.31	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-125	0.0002	0.0002	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	HGWC-126	0.0002	0.0002	0.002	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	HGWC-120	0.03746	0.02651	0.1	No	17	0	No	0.01	Param.
Molybdenum (mg/L)	HGWC-121A	0.01	0.01	0.1	No	17	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	HGWC-124	0.01	0.00091	0.1	No	17	35.29	No	0.01	NP (normality)
Molybdenum (mg/L)	HGWC-125	0.01036	-0.0001221	0.1	No	11	27.27	No	0.01	Param.
Molybdenum (mg/L)	HGWC-126	0.01	0.01	0.1	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	HGWC-120	0.005	0.002	0.05	No	13	92.31	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-121A	0.005	0.0011	0.05	No	13	92.31	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-124	0.005	0.0014	0.05	No	13	92.31	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-125	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	HGWC-126	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)

FIGURE A.

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Antimony Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

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Hollow symbols indicate censored values.

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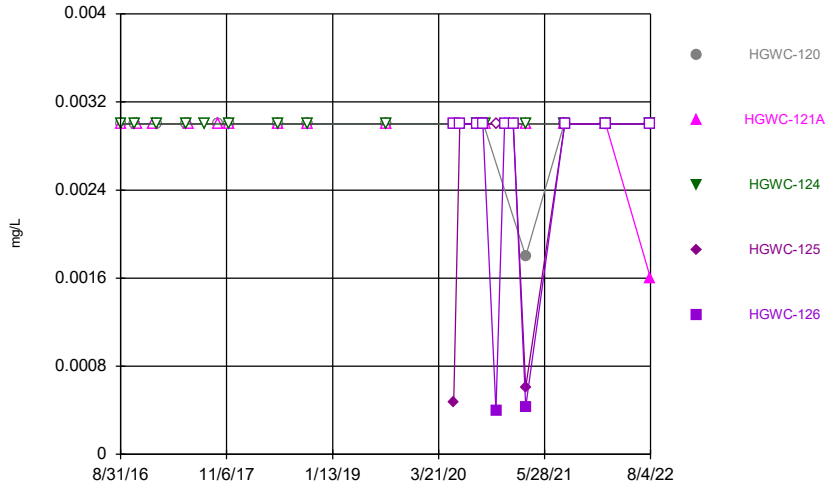

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Plant Hammond Client: Southern Company Data: Hammond AP-3

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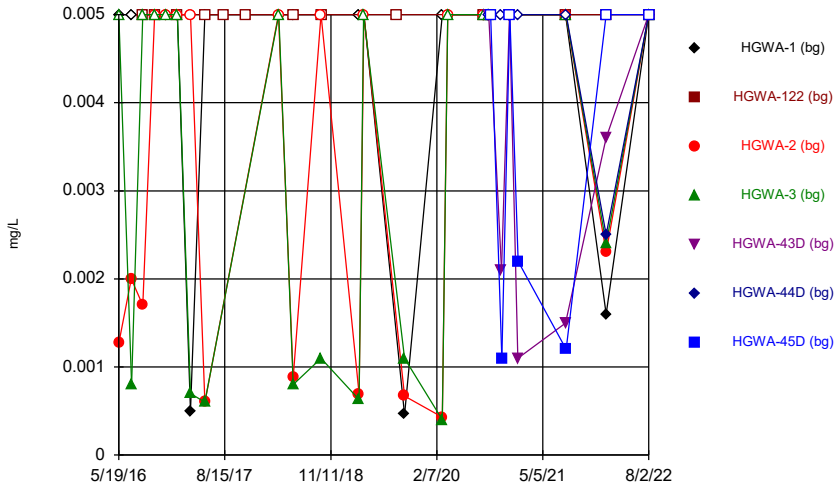

Constituent: Arsenic Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

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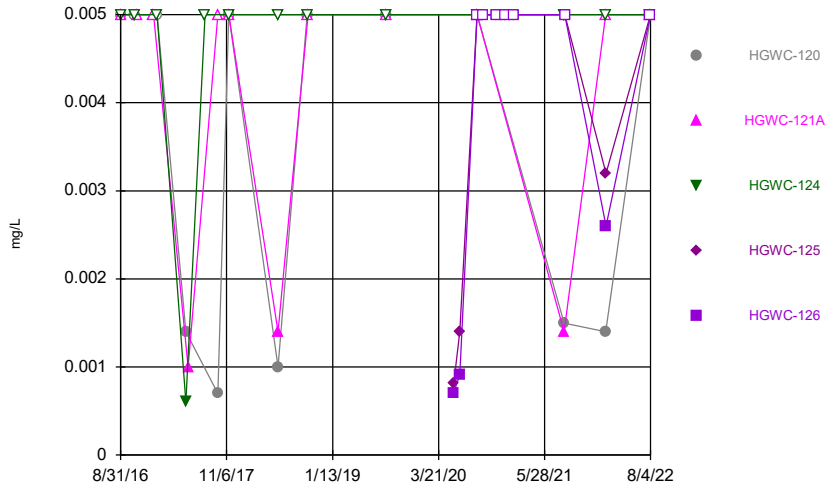

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Plant Hammond Client: Southern Company Data: Hammond AP-3

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Hollow symbols indicate censored values.

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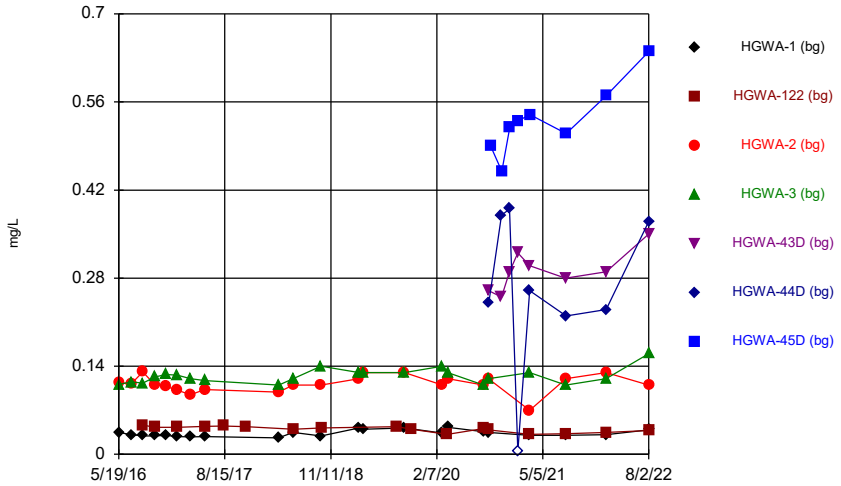

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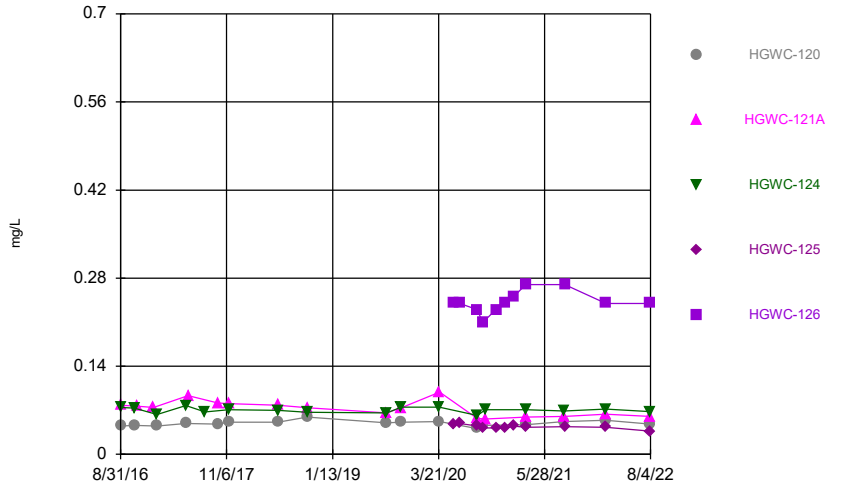
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Time Series



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Plant Hammond Client: Southern Company Data: Hammond AP-3

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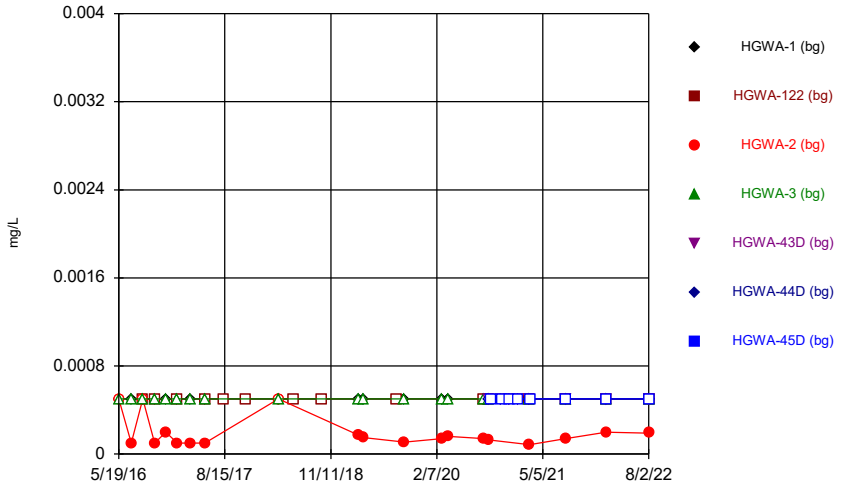
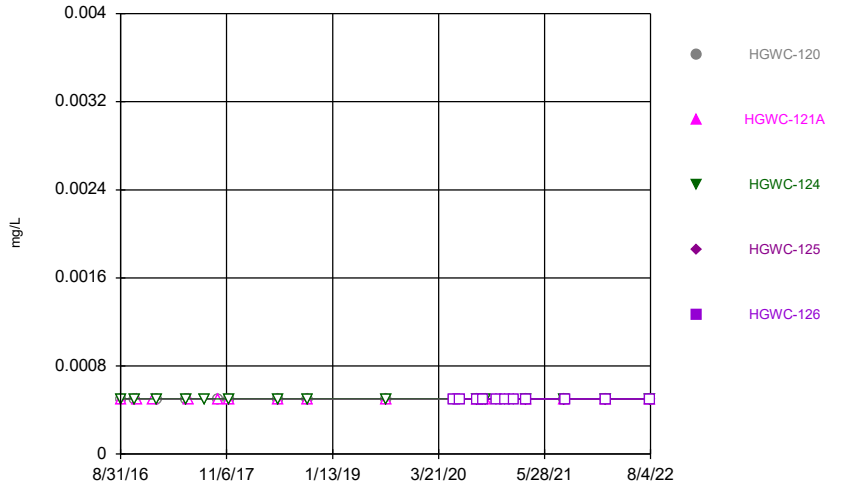


Constituent: Beryllium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

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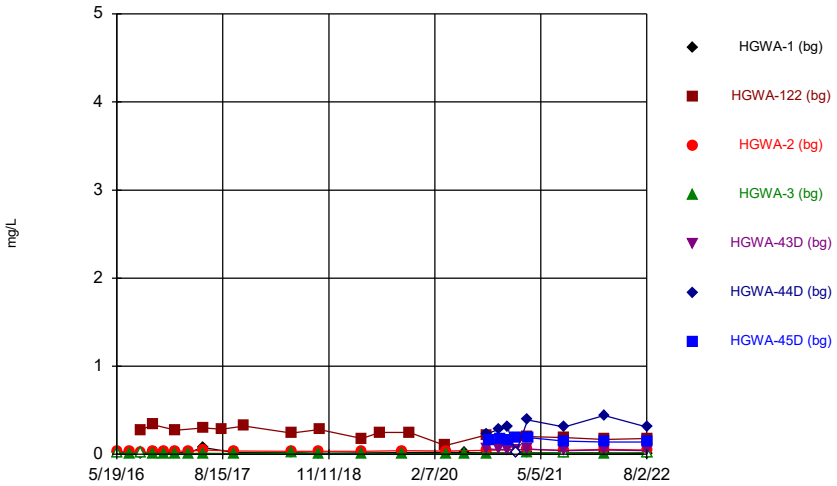

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Plant Hammond Client: Southern Company Data: Hammond AP-3

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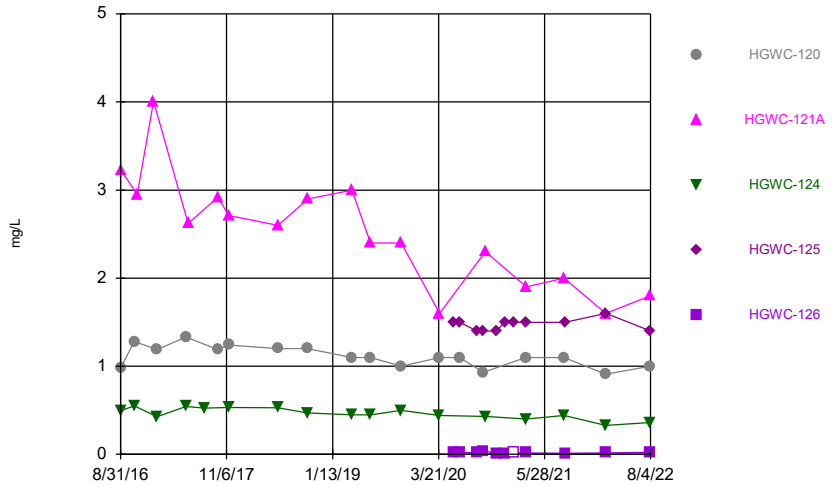
Time Series



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Plant Hammond Client: Southern Company Data: Hammond AP-3

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Hollow symbols indicate censored values.

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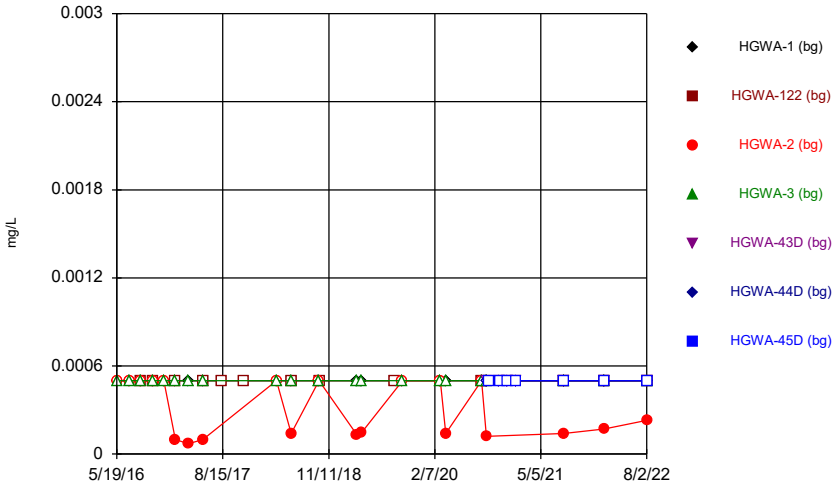
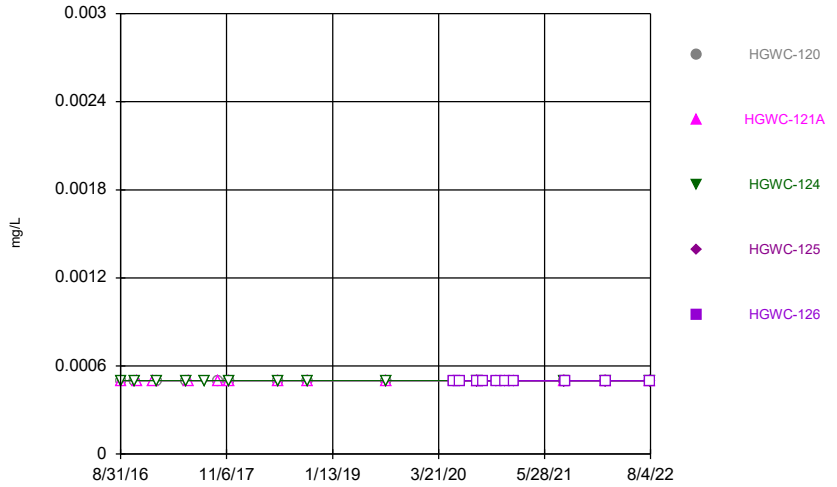


Constituent: Cadmium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

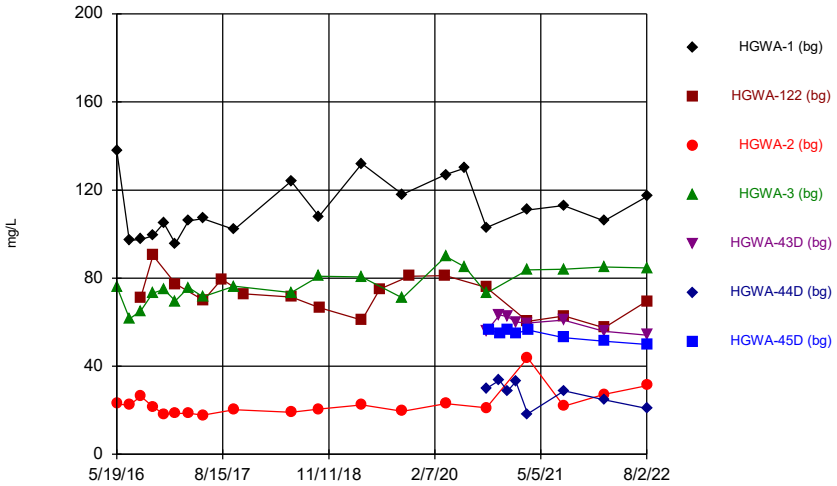
Time Series



Constituent: Cadmium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

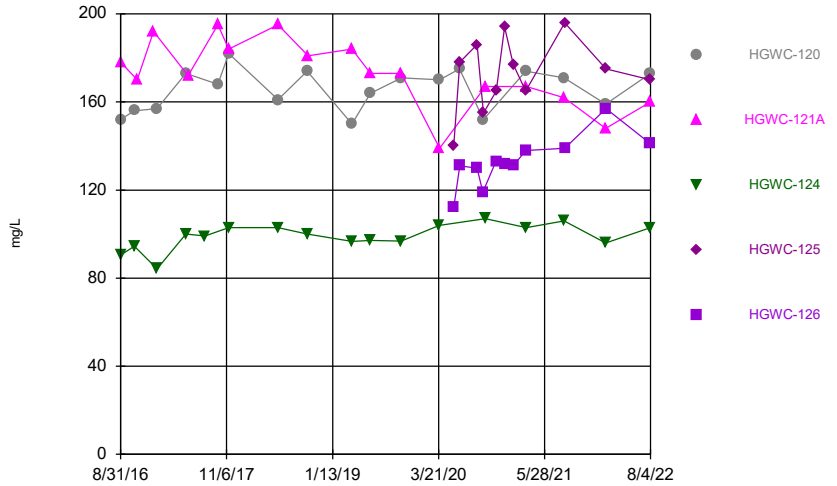
Time Series



Constituent: Calcium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

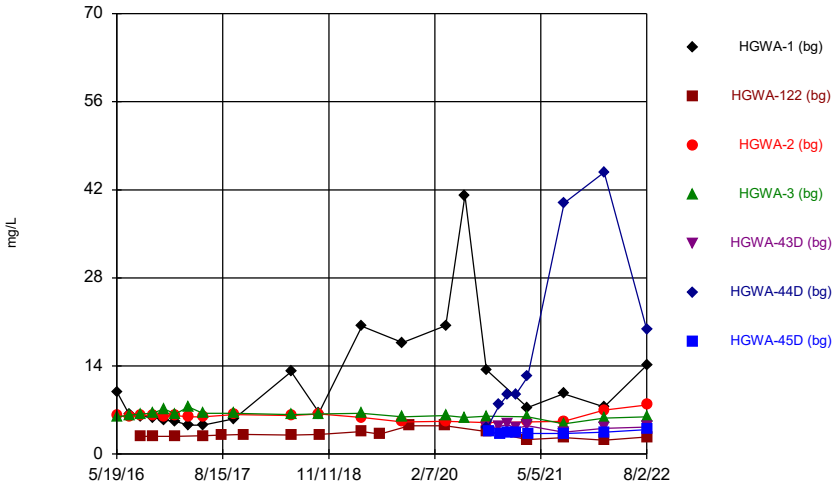
Time Series



Constituent: Calcium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

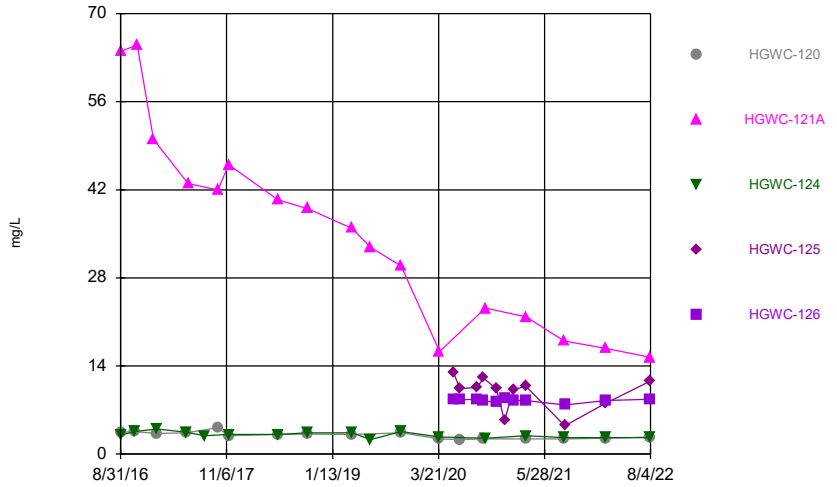
Time Series



Constituent: Chloride Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

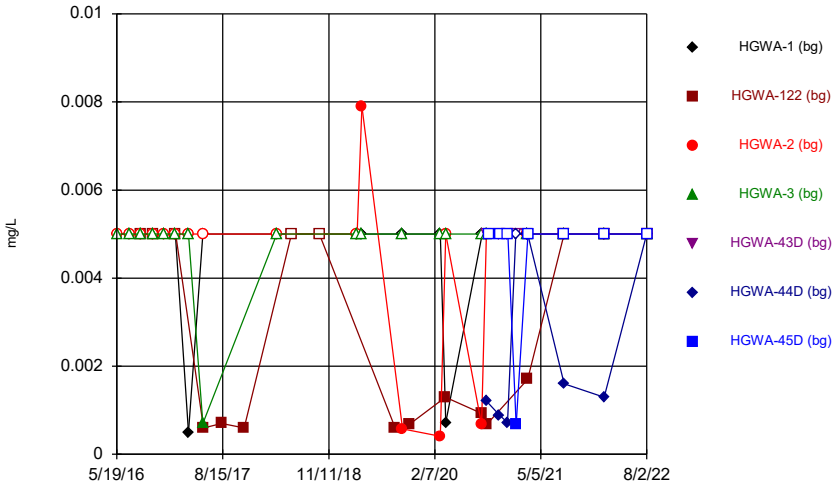
Time Series



Constituent: Chloride Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

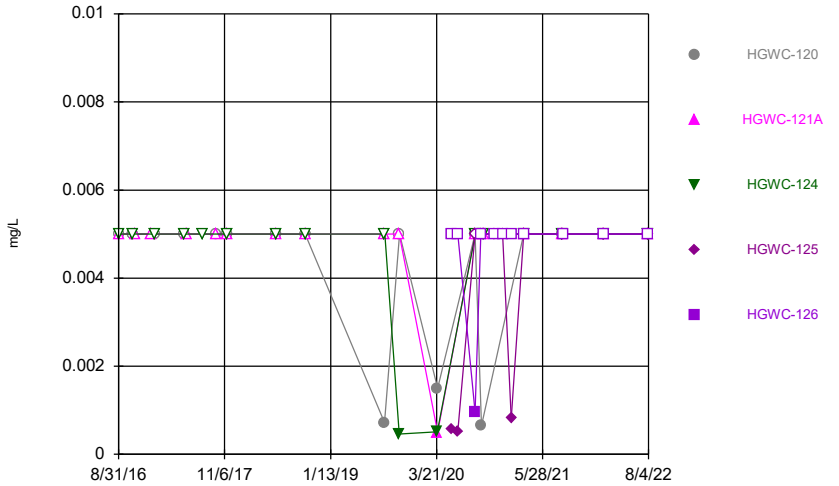
Time Series



Constituent: Chromium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

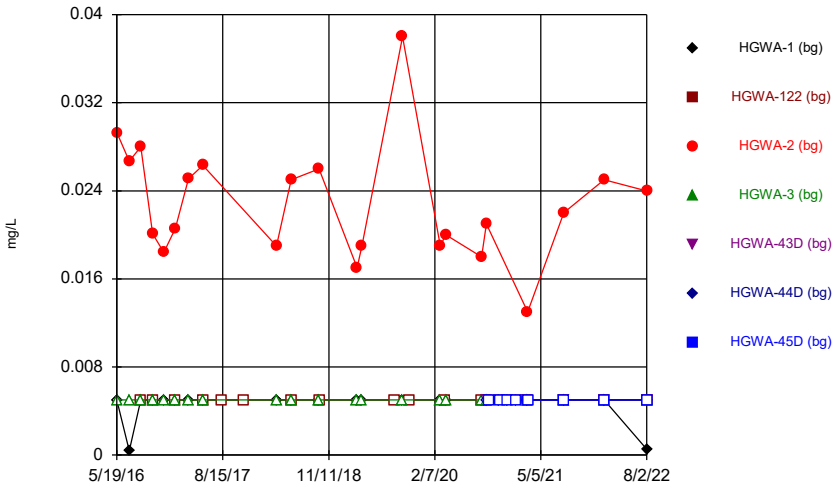
Time Series



Constituent: Chromium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

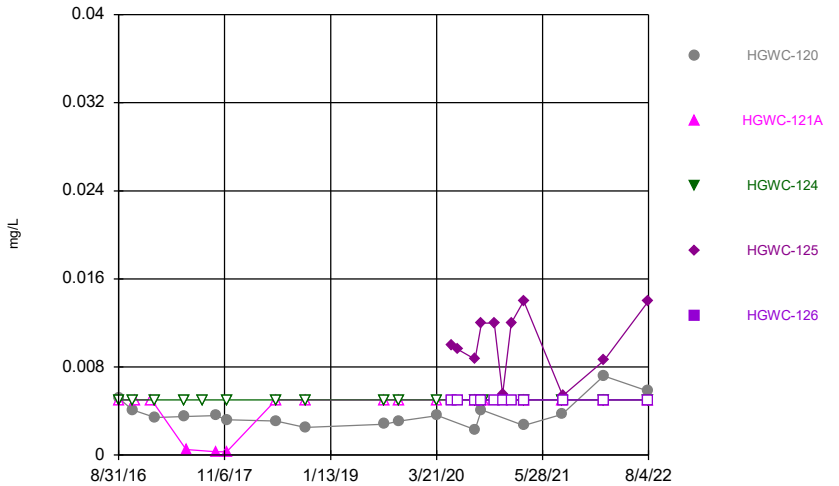
Time Series



Constituent: Cobalt Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

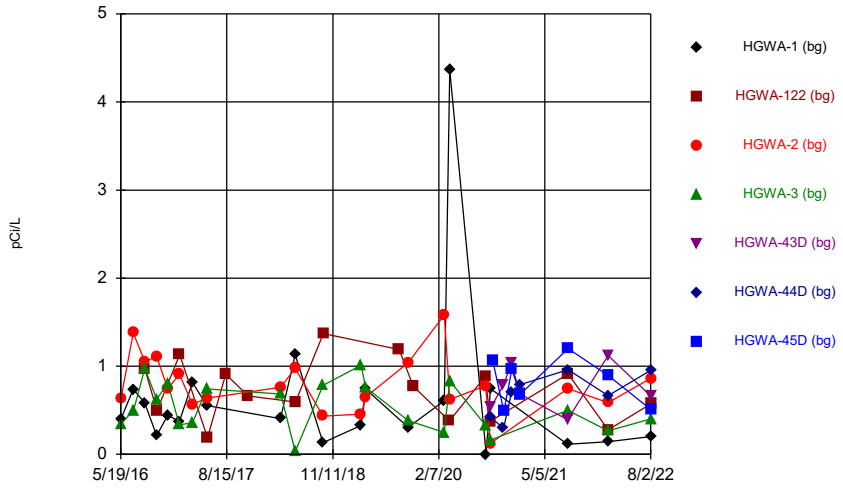
Time Series



Constituent: Cobalt Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

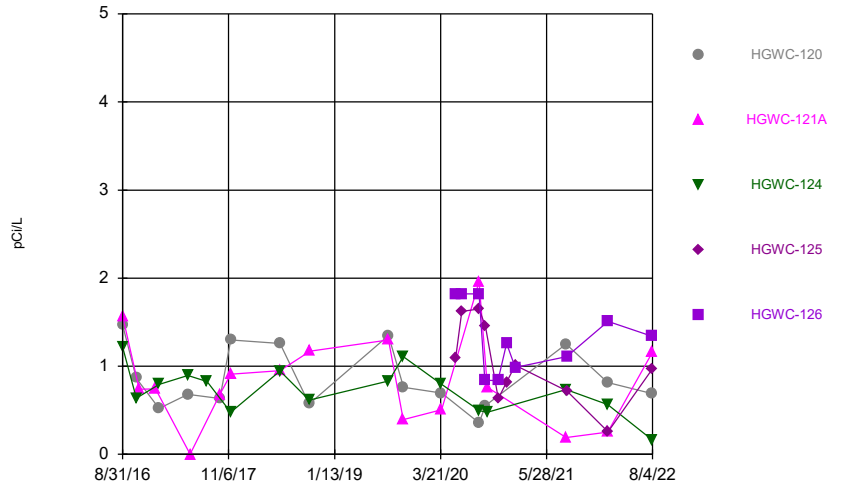
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plo
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

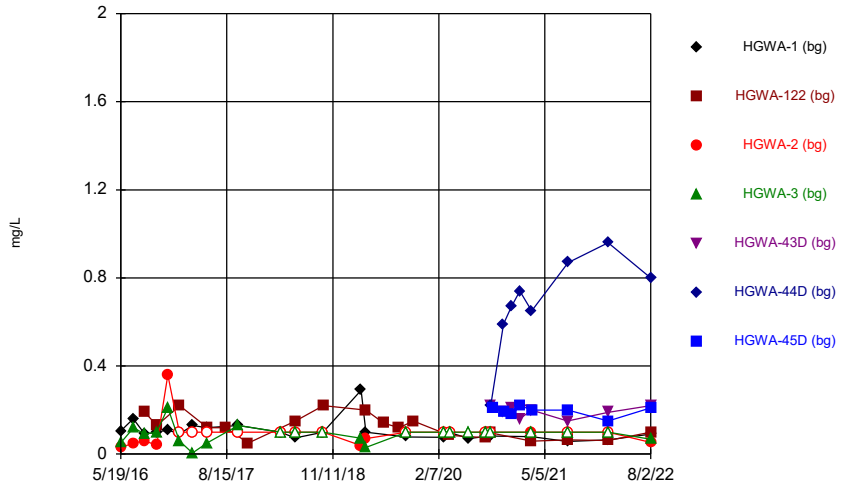
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plo
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

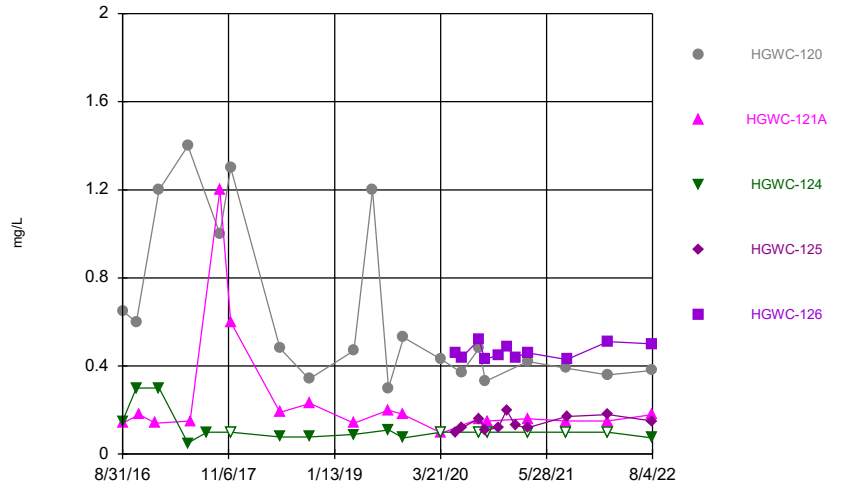
Time Series



Constituent: Fluoride Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

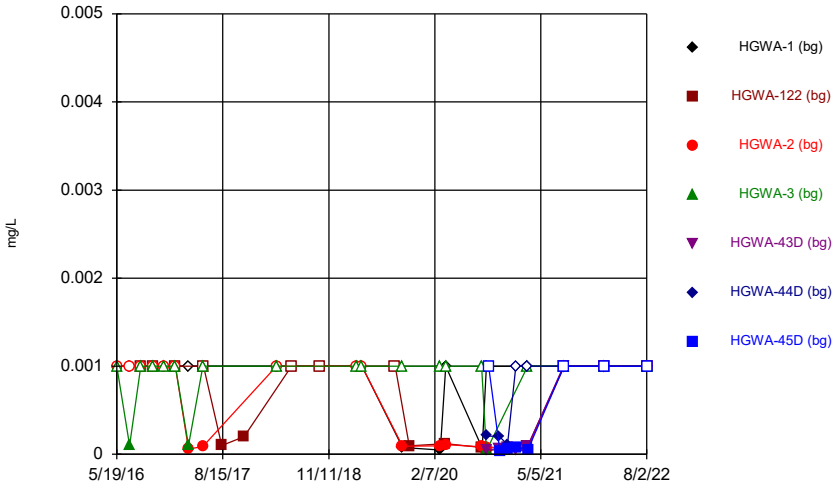
Time Series



Constituent: Fluoride Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

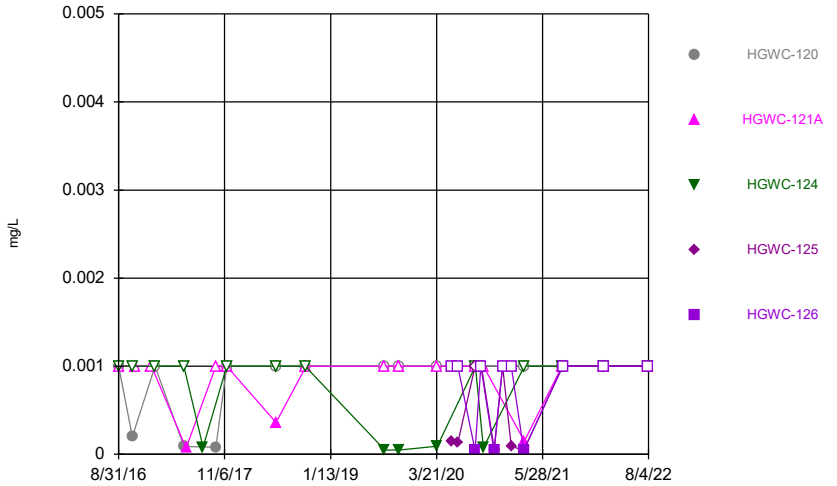
Time Series



Constituent: Lead Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

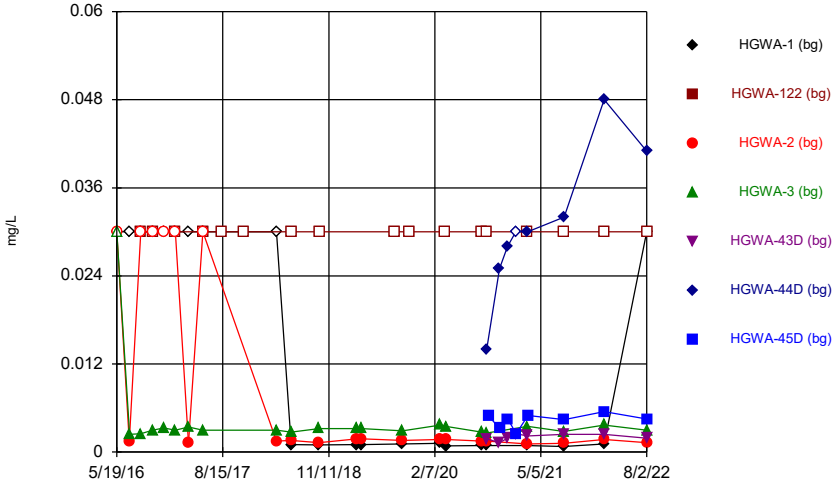
Time Series



Constituent: Lead Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

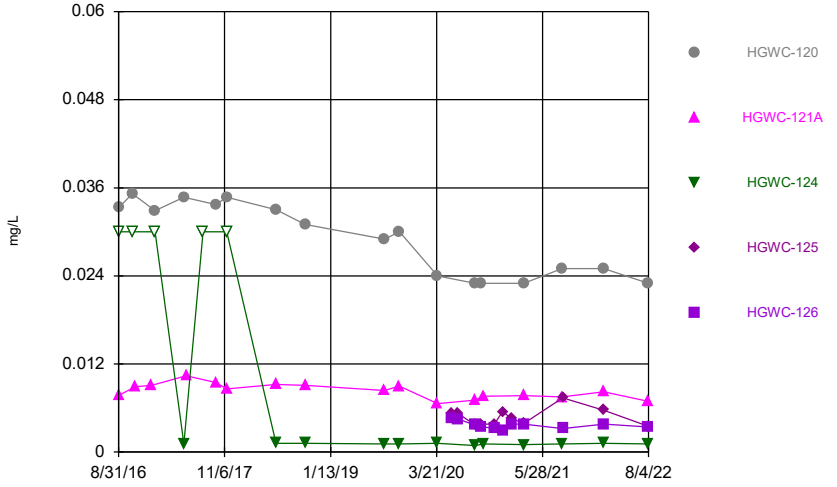
Time Series



Constituent: Lithium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

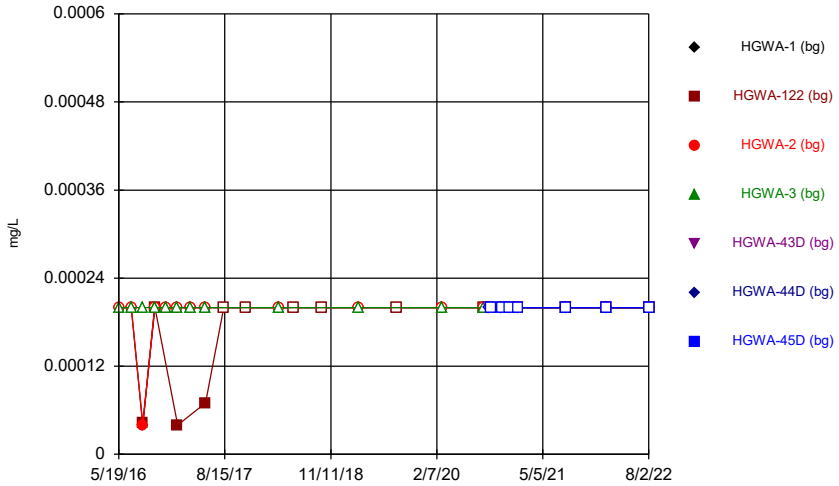
Time Series



Constituent: Lithium Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

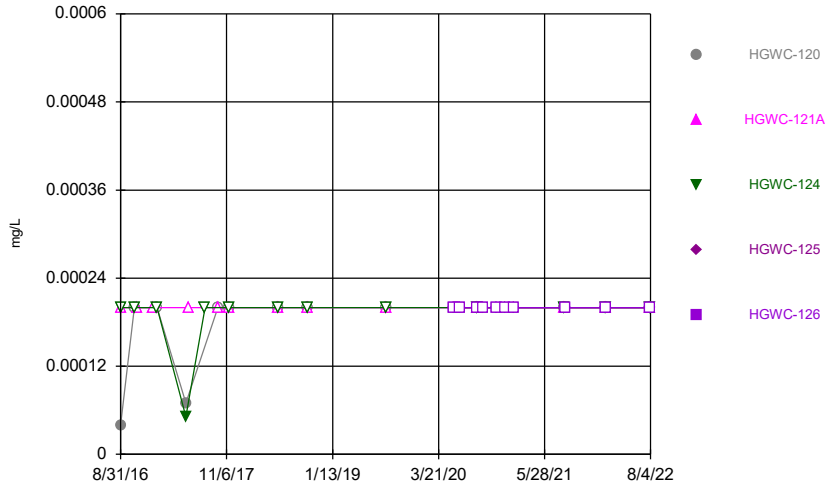
Time Series



Constituent: Mercury Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

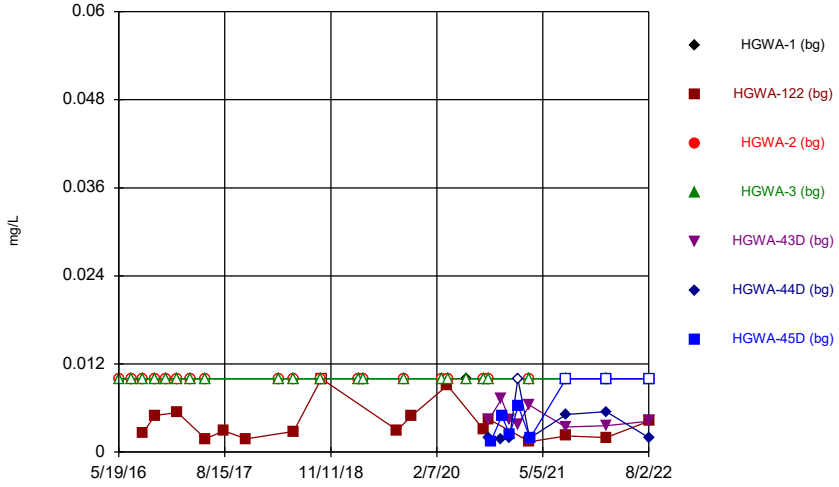
Time Series



Constituent: Mercury Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

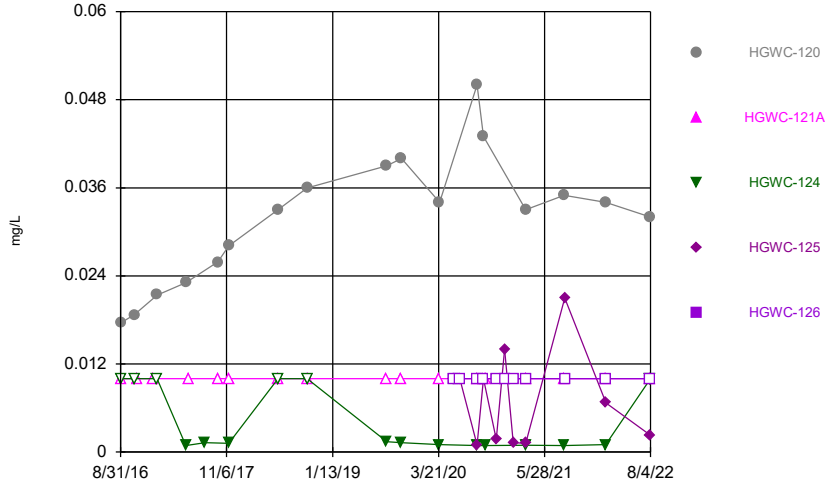
Time Series



Constituent: Molybdenum Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

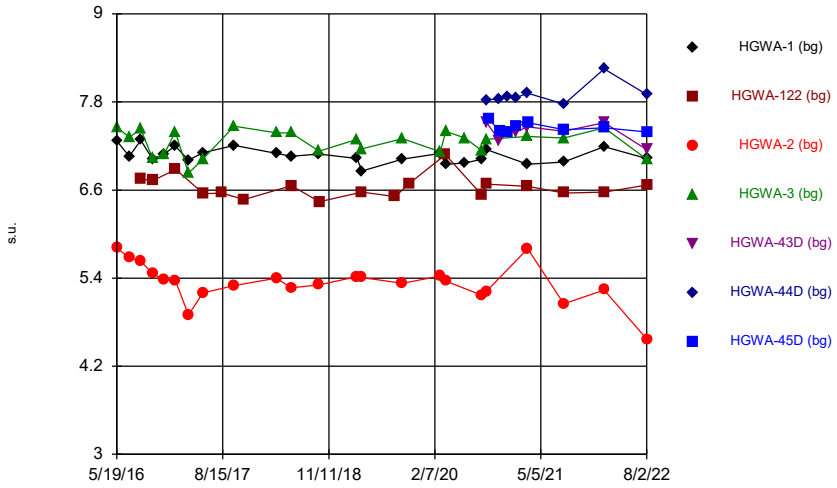
Time Series



Constituent: Molybdenum Analysis Run 10/27/2022 5:08 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

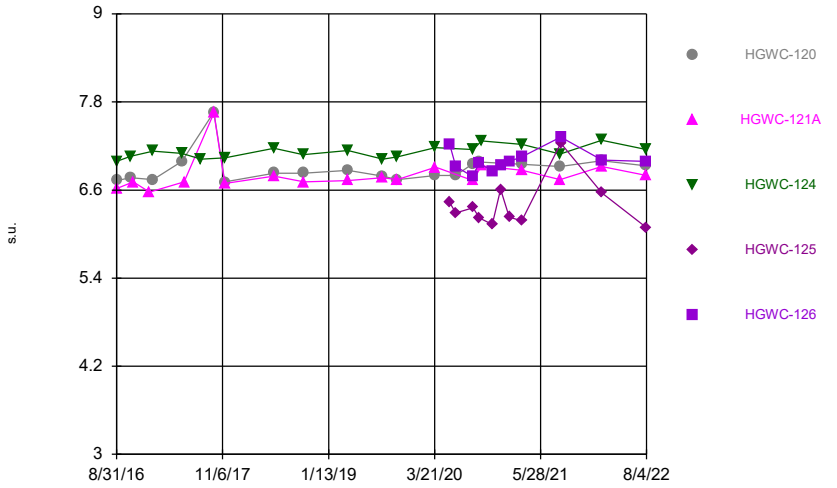
Time Series



Constituent: pH Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

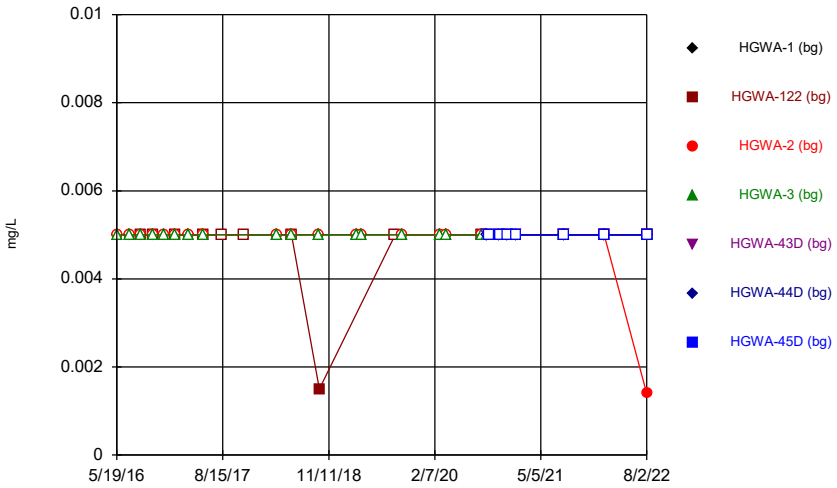
Time Series



Constituent: pH Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

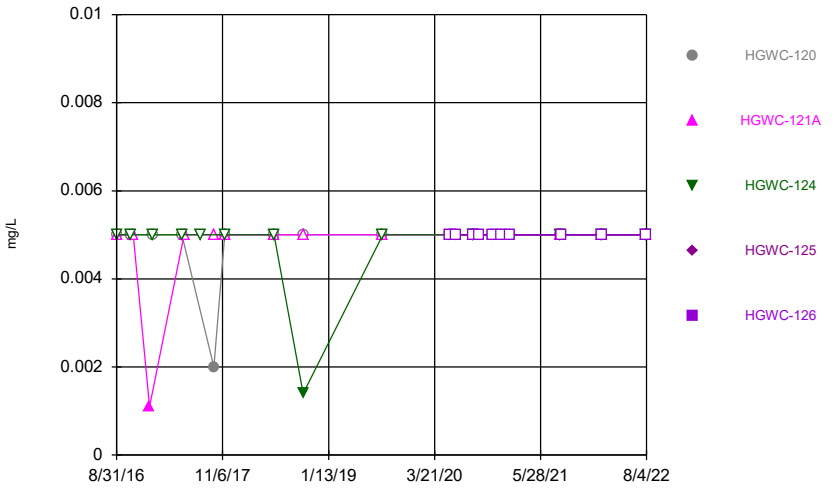
Time Series



Constituent: Selenium Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

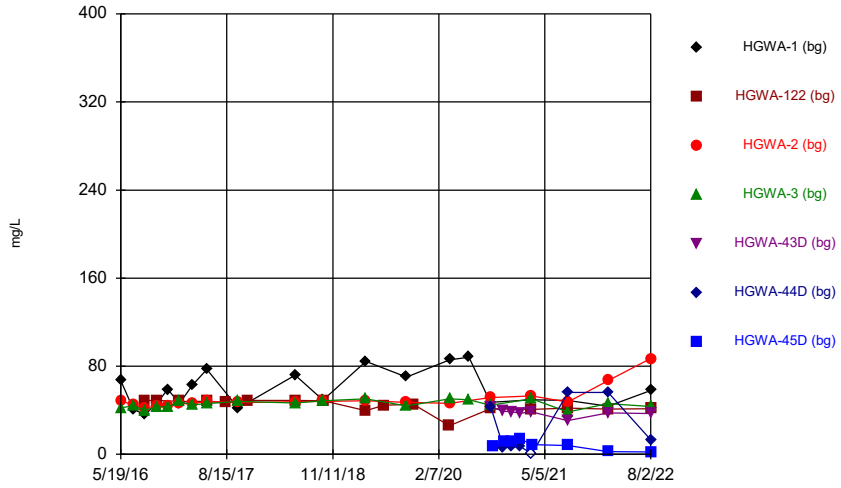
Time Series



Constituent: Selenium Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

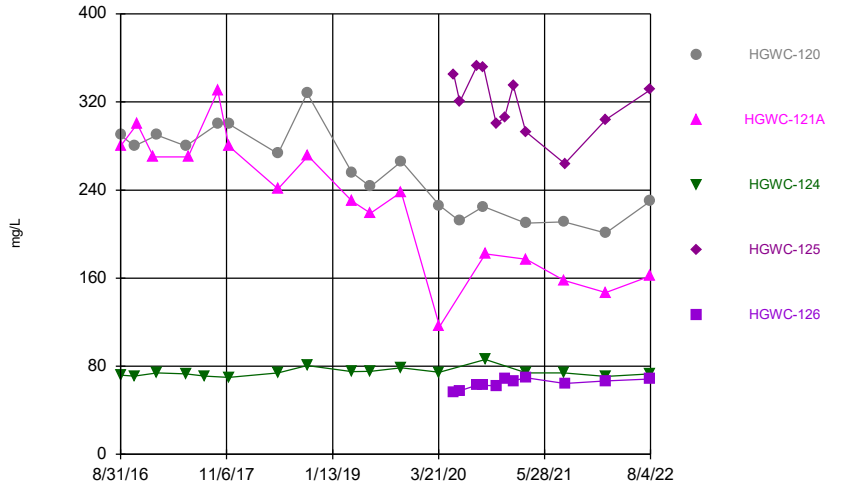
Time Series



Constituent: Sulfate Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

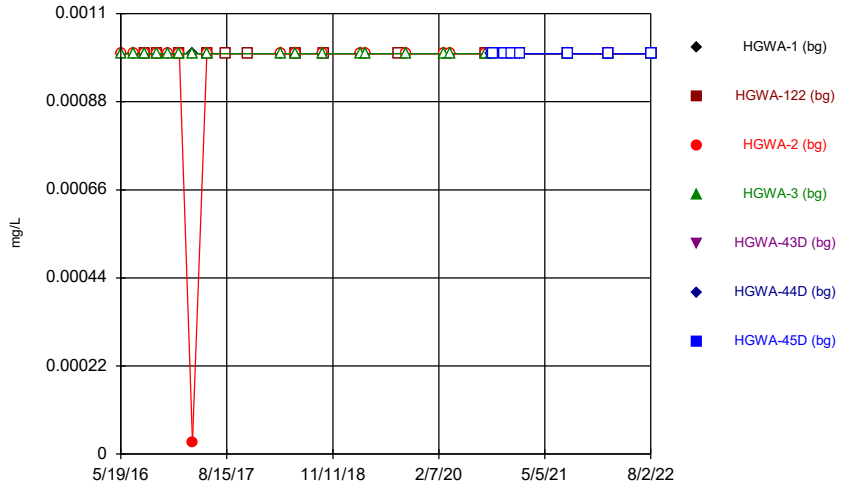
Time Series



Constituent: Sulfate Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

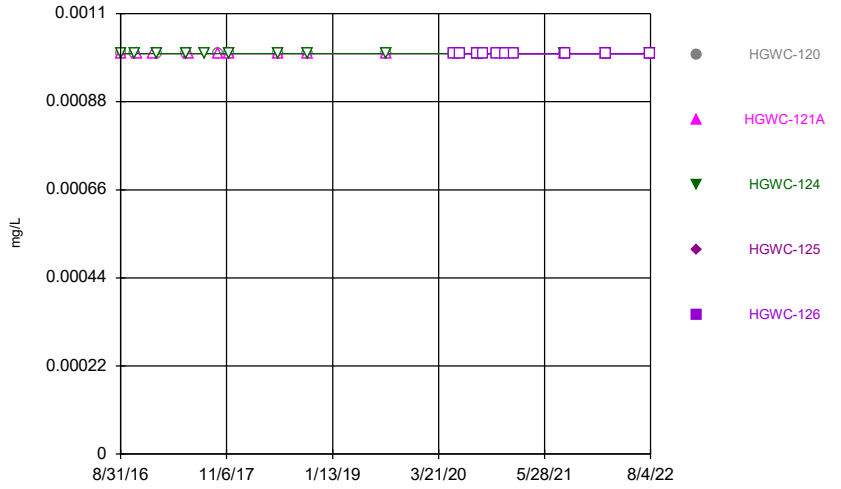
Time Series



Constituent: Thallium Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

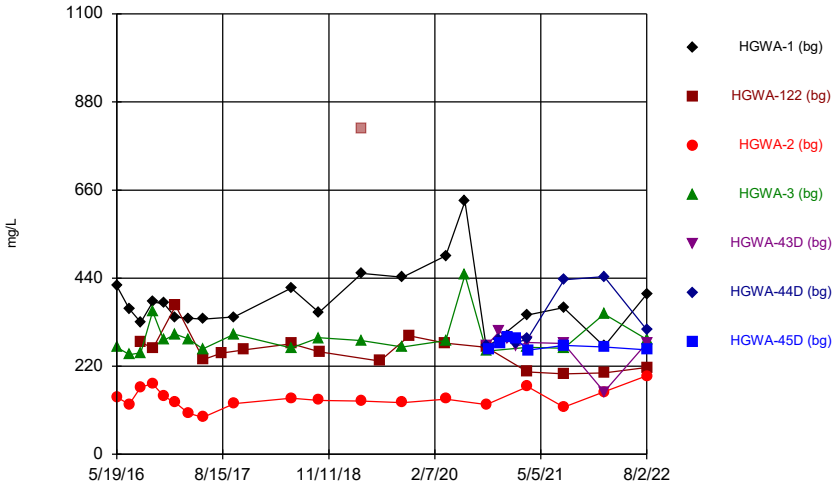
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

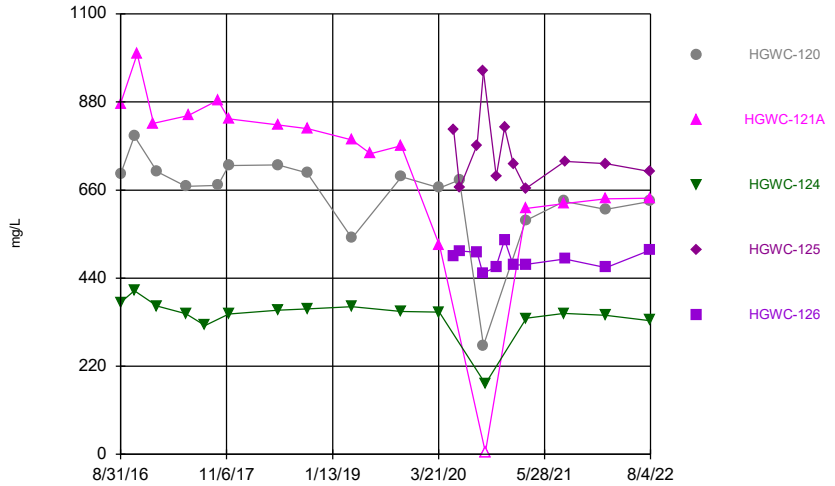
Time Series



Constituent: Total Dissolved Solids Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.003		<0.003	<0.003			
7/11/2016	<0.003		<0.003				
7/12/2016				0.0003 (J)			
8/30/2016	<0.003	<0.003	<0.003	<0.003			
10/19/2016	0.0014 (J)		<0.003	<0.003			
10/20/2016		<0.003					
12/6/2016	<0.003		<0.003	<0.003			
1/24/2017	<0.003		<0.003	<0.003			
1/25/2017		<0.003					
3/21/2017	<0.003		<0.003	<0.003			
5/22/2017	<0.003		<0.003	<0.003			
5/25/2017		<0.003					
8/11/2017		<0.003					
11/15/2017		<0.003					
4/2/2018	<0.003		<0.003				
4/3/2018				<0.003			
6/5/2018		<0.003					
10/2/2018		<0.003					
3/12/2019	<0.003		<0.003	<0.003			
4/1/2019				<0.003			
4/2/2019	<0.003		<0.003				
8/22/2019		<0.003					
9/23/2019	<0.003		<0.003	<0.003			
3/2/2020	<0.003		<0.003	<0.003			
3/25/2020	<0.003		<0.003	<0.003			
8/24/2020		<0.003					
8/25/2020			<0.003	<0.003			
8/28/2020	<0.003						
9/15/2020	<0.003	0.001 (J)	<0.003	<0.003			
9/16/2020					0.00051 (J)	0.00049 (J)	
9/25/2020							<0.003
11/10/2020					0.00043 (J)	<0.003	
11/11/2020							0.00057 (J)
12/15/2020					0.00031 (J)	0.00047 (J)	
12/16/2020							<0.003
1/19/2021					0.00029 (J)	<0.003	
1/20/2021							<0.003
3/10/2021	<0.003					0.00037 (J)	
3/11/2021		<0.003	<0.003	<0.003	0.00057 (J)		
3/12/2021							0.0003 (J)
8/11/2021	<0.003				<0.003		
8/12/2021			<0.003	<0.003			
8/13/2021		<0.003				<0.003	<0.003
2/1/2022	<0.003	<0.003	<0.003	<0.003	<0.003	0.0013 (J)	0.0018 (J)
8/2/2022	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.003	<0.003	<0.003		
10/26/2016	<0.003		<0.003		
11/7/2016		<0.003			
1/13/2017		<0.003			
1/27/2017	<0.003		<0.003		
5/25/2017	<0.003		<0.003		
6/3/2017		<0.003			
8/11/2017			<0.003		
10/2/2017	<0.003	<0.003			
11/15/2017	<0.003	<0.003	<0.003		
6/5/2018	<0.003	<0.003	<0.003		
10/2/2018	<0.003		<0.003		
10/5/2018		<0.003			
8/22/2019	<0.003	<0.003			
8/23/2019			<0.003		
5/22/2020				0.00047 (J)	<0.003
6/16/2020				<0.003	<0.003
8/25/2020				<0.003	<0.003
8/26/2020	<0.003	<0.003			
8/27/2020			<0.003		
9/18/2020					<0.003
9/21/2020	<0.003			<0.003	
9/28/2020		<0.003	<0.003		
11/11/2020					0.0004 (J)
11/12/2020				<0.003	
12/16/2020				<0.003	<0.003
1/20/2021				<0.003	<0.003
3/12/2021	0.0018 (J)			0.00061 (J)	0.00043 (J)
3/15/2021		<0.003	<0.003		
8/16/2021	<0.003	<0.003	<0.003		
8/19/2021				<0.003	<0.003
2/2/2022	<0.003	<0.003	<0.003		
2/3/2022				<0.003	<0.003
8/4/2022	<0.003	0.0016 (J)	<0.003	<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.005		0.00127 (J)	<0.005			
7/11/2016	<0.005		0.002 (J)				
7/12/2016				0.0008 (J)			
8/30/2016	<0.005	<0.005	0.0017 (J)	<0.005			
10/19/2016	<0.005		<0.005	<0.005			
10/20/2016		<0.005					
12/6/2016	<0.005		<0.005	<0.005			
1/24/2017	<0.005		<0.005	<0.005			
1/25/2017		<0.005					
3/21/2017	0.0005 (J)		<0.005	0.0007 (J)			
5/22/2017	<0.005		0.0006 (J)	0.0006 (J)			
5/25/2017		<0.005					
8/11/2017		<0.005					
11/15/2017		<0.005					
4/2/2018	<0.005		<0.005				
4/3/2018				<0.005			
6/4/2018	<0.005		0.00088 (J)	0.0008 (J)			
6/5/2018		<0.005					
10/1/2018	<0.005		<0.005	0.0011 (J)			
10/2/2018		<0.005					
3/12/2019	<0.005		0.00069 (J)	0.00063 (J)			
4/1/2019				<0.005			
4/2/2019	<0.005		<0.005				
8/22/2019		<0.005					
9/23/2019	0.00046 (J)		0.00067 (J)	0.0011 (J)			
3/2/2020	<0.005		0.00043 (J)	0.0004 (J)			
3/25/2020	<0.005		<0.005	<0.005			
8/24/2020		<0.005					
8/25/2020			<0.005	<0.005			
8/28/2020	<0.005						
9/15/2020	<0.005		<0.005	<0.005			
9/16/2020					<0.005	<0.005	
9/25/2020							<0.005
11/10/2020					0.0021 (J)	<0.005	
11/11/2020							0.0011 (J)
12/15/2020					<0.005	<0.005	
12/16/2020							<0.005
1/19/2021					0.0011 (J)	<0.005	
1/20/2021							0.0022 (J)
8/11/2021	<0.005				0.0015 (J)		
8/12/2021			<0.005	<0.005			
8/13/2021		<0.005				<0.005	0.0012 (J)
2/1/2022	0.0016 (J)	<0.005	0.0023 (J)	0.0024 (J)	0.0036 (J)	0.0025 (J)	<0.005
8/2/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.005	<0.005	<0.005		
10/26/2016	<0.005		<0.005		
11/7/2016		<0.005			
1/13/2017		<0.005			
1/27/2017	<0.005		<0.005		
5/25/2017	0.0014 (J)		0.0006 (J)		
6/3/2017		0.001 (J)			
8/11/2017			<0.005		
10/2/2017	0.0007 (J)	<0.005			
11/15/2017	<0.005	<0.005	<0.005		
6/5/2018	0.001 (J)	0.0014 (J)	<0.005		
10/2/2018	<0.005		<0.005		
10/5/2018		<0.005			
8/22/2019	<0.005	<0.005			
8/23/2019			<0.005		
5/22/2020				0.00081 (J)	0.00071 (J)
6/16/2020				0.0014 (J)	0.00091 (J)
8/25/2020				<0.005	<0.005
8/26/2020	<0.005	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020				<0.005	
11/11/2020					<0.005
11/12/2020				<0.005	
12/16/2020				<0.005	<0.005
1/20/2021				<0.005	<0.005
8/16/2021	0.0015 (J)	0.0014 (J)	<0.005		
8/19/2021				<0.005	<0.005
2/2/2022	0.0014 (J)	<0.005	<0.005		
2/3/2022				0.0032 (J)	0.0026 (J)
8/4/2022	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	0.0346		0.114	0.111			
7/11/2016	0.0311		0.112				
7/12/2016				0.115			
8/30/2016	0.0293	0.0463	0.131	0.113			
10/19/2016	0.0293		0.111	0.123			
10/20/2016		0.0431					
12/6/2016	0.0304		0.108	0.127			
1/24/2017	0.028		0.102	0.126			
1/25/2017		0.0429					
3/21/2017	0.0275		0.095	0.12			
5/22/2017	0.0281		0.103	0.117			
5/25/2017		0.0447					
8/11/2017		0.0451					
11/15/2017		0.0439					
4/2/2018	0.026		0.099				
4/3/2018				0.11			
6/4/2018	0.035		0.11	0.12			
6/5/2018		0.04					
10/1/2018	0.029		0.11	0.14			
10/2/2018		0.042					
3/12/2019	0.042		0.12	0.13			
4/1/2019				0.13			
4/2/2019	0.04		0.13				
8/22/2019		0.044					
9/23/2019	0.042		0.13	0.13			
10/21/2019		0.04					
3/2/2020	0.034		0.11	0.14			
3/24/2020		0.032					
3/25/2020	0.043		0.12	0.13			
8/24/2020		0.041					
8/25/2020			0.11	0.11			
8/28/2020	0.036						
9/15/2020	0.035	0.039	0.12	0.12			
9/16/2020					0.26	0.24	
9/25/2020							0.49
11/10/2020					0.25	0.38	
11/11/2020							0.45
12/15/2020					0.29	0.39	
12/16/2020							0.52
1/19/2021					0.32	<0.01	
1/20/2021							0.53
3/10/2021	0.03					0.26	
3/11/2021		0.032	0.07	0.13	0.3		
3/12/2021							0.54
8/11/2021	0.03				0.28		
8/12/2021			0.12	0.11			
8/13/2021		0.033				0.22	0.51
2/1/2022	0.031	0.035	0.13	0.12	0.29	0.23	0.57
8/2/2022	0.039	0.038	0.11	0.16	0.35	0.37	0.64

Time Series

Constituent: Barium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.045	0.0782	0.0744		
10/26/2016	0.0462		0.0735		
11/7/2016		0.0764			
1/13/2017		0.0744			
1/27/2017	0.0451		0.0632		
5/25/2017	0.0488		0.0773		
6/3/2017		0.0933			
8/11/2017			0.0672		
10/2/2017	0.0479	0.0815			
11/15/2017	0.051	0.0807	0.0707		
6/5/2018	0.051	0.078	0.07		
10/2/2018	0.059		0.067		
10/5/2018		0.074			
8/22/2019	0.05	0.066			
8/23/2019			0.066		
10/21/2019		0.074	0.075		
10/22/2019	0.051				
3/24/2020			0.075		
3/25/2020	0.052	0.099			
5/22/2020				0.048	0.24
6/16/2020				0.049	0.24
8/25/2020				0.045	0.23
8/26/2020	0.041	0.057			
8/27/2020			0.062		
9/18/2020					0.21
9/21/2020	0.046			0.042	
9/28/2020		0.056	0.071		
11/11/2020					0.23
11/12/2020				0.042	
12/16/2020				0.041	0.24
1/20/2021				0.045	0.25
3/12/2021	0.047			0.043	0.27
3/15/2021		0.059	0.071		
8/16/2021	0.052	0.06	0.069		
8/19/2021				0.044	0.27
2/2/2022	0.054	0.064	0.072		
2/3/2022				0.043	0.24
8/4/2022	0.048	0.06	0.068	0.037	0.24

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.0005		<0.0005	<0.0005			
7/11/2016	<0.0005		0.0001 (J)				
7/12/2016				<0.0005			
8/30/2016	<0.0005	<0.0005	<0.0005	<0.0005			
10/19/2016	<0.0005		0.0001 (J)	<0.0005			
10/20/2016		<0.0005					
12/6/2016	<0.0005		0.0002 (J)	<0.0005			
1/24/2017	<0.0005		0.0001 (J)	<0.0005			
1/25/2017		<0.0005					
3/21/2017	<0.0005		0.0001 (J)	<0.0005			
5/22/2017	<0.0005		0.0001 (J)	<0.0005			
5/25/2017		<0.0005					
8/11/2017		<0.0005					
11/15/2017		<0.0005					
4/2/2018	<0.0005		<0.0005				
4/3/2018				<0.0005			
6/5/2018		<0.0005					
10/2/2018		<0.0005					
3/12/2019	<0.0005		0.00017 (J)	<0.0005			
4/1/2019				<0.0005			
4/2/2019	<0.0005		0.00015 (J)				
8/22/2019		<0.0005					
9/23/2019	<0.0005		0.00011 (J)	<0.0005			
3/2/2020	<0.0005		0.00014 (J)	<0.0005			
3/25/2020	<0.0005		0.00016 (J)	<0.0005			
8/24/2020		<0.0005					
8/25/2020			0.00014 (J)	<0.0005			
8/28/2020	<0.0005						
9/15/2020	<0.0005	<0.0005	0.00013 (J)	<0.0005			
9/16/2020					<0.0005	<0.0005	
9/25/2020							<0.0005
11/10/2020					<0.0005	<0.0005	
11/11/2020							<0.0005
12/15/2020					<0.0005	<0.0005	
12/16/2020							<0.0005
1/19/2021					<0.0005	<0.0005	
1/20/2021							<0.0005
3/10/2021	<0.0005					<0.0005	
3/11/2021		<0.0005	8.6E-05 (J)	<0.0005	<0.0005		
3/12/2021							<0.0005
8/11/2021	<0.0005				<0.0005		
8/12/2021			0.00014 (J)	<0.0005			
8/13/2021		<0.0005				<0.0005	<0.0005
2/1/2022	<0.0005	<0.0005	0.0002 (J)	<0.0005	<0.0005	<0.0005	<0.0005
8/2/2022	<0.0005	<0.0005	0.00019 (J)	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.0005	<0.0005	<0.0005		
10/26/2016	<0.0005		<0.0005		
11/7/2016		<0.0005			
1/13/2017		<0.0005			
1/27/2017	<0.0005		<0.0005		
5/25/2017	<0.0005		<0.0005		
6/3/2017		<0.0005			
8/11/2017			<0.0005		
10/2/2017	<0.0005	<0.0005			
11/15/2017	<0.0005	<0.0005	<0.0005		
6/5/2018	<0.0005	<0.0005	<0.0005		
10/2/2018	<0.0005		<0.0005		
10/5/2018		<0.0005			
8/22/2019	<0.0005	<0.0005			
8/23/2019			<0.0005		
5/22/2020				<0.0005	<0.0005
6/16/2020				<0.0005	<0.0005
8/25/2020				<0.0005	<0.0005
8/26/2020	<0.0005	<0.0005			
8/27/2020			<0.0005		
9/18/2020					<0.0005
9/21/2020	<0.0005			<0.0005	
9/28/2020		<0.0005	<0.0005		
11/11/2020					<0.0005
11/12/2020				<0.0005	
12/16/2020				<0.0005	<0.0005
1/20/2021				<0.0005	<0.0005
3/12/2021	<0.0005			<0.0005	<0.0005
3/15/2021		<0.0005	<0.0005		
8/16/2021	<0.0005	<0.0005	<0.0005		
8/19/2021				<0.0005	<0.0005
2/2/2022	<0.0005	<0.0005	<0.0005		
2/3/2022				<0.0005	<0.0005
8/4/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Boron (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	0.0214 (J)		0.0321 (J)	<0.04			
7/11/2016	0.0142 (J)		0.0337 (J)				
7/12/2016				0.0074 (J)			
8/30/2016	0.0074 (J)	0.277	0.0173 (J)	<0.04			
10/19/2016	0.0224 (J)		0.0341 (J)	0.0085 (J)			
10/20/2016		0.336					
12/6/2016	0.0211 (J)		0.0326 (J)	0.0085 (J)			
1/24/2017	0.0165 (J)		0.0365 (J)	0.01 (J)			
1/25/2017		0.274					
3/21/2017	0.0187 (J)		0.0349 (J)	0.0079 (J)			
5/22/2017	0.0782		0.0475	0.0131 (J)			
5/25/2017		0.298					
8/11/2017		0.285					
10/3/2017	0.0198 (J)		0.0386 (J)	0.0097 (J)			
11/15/2017		0.322					
6/4/2018	0.02 (J)		0.036 (J)	0.017 (J)			
6/5/2018		0.24					
10/1/2018	0.013 (J)		0.035 (J)	0.0061 (J)			
10/2/2018		0.28					
4/1/2019				0.0066 (J)			
4/2/2019	0.016 (J)	0.18	0.034 (J)				
6/18/2019		0.25					
9/23/2019	0.021 (J)		0.04 (J)	0.0081 (J)			
10/21/2019		0.25					
3/24/2020		0.1					
3/25/2020	0.025 (J)		0.039 (J)	0.0096 (J)			
6/16/2020	0.021 (J)			0.01 (J)			
9/15/2020	0.017 (J)	0.22	0.044 (J)	0.0071 (J)			
9/16/2020					0.061 (J)	0.23	
9/25/2020							0.16
11/10/2020					0.057 (J)	0.29	
11/11/2020							0.17
12/15/2020					0.052 (J)	0.31	
12/16/2020							0.16
1/19/2021					0.049 (J)	<0.04	
1/20/2021							0.19
3/10/2021	0.015 (J)					0.39	
3/11/2021		0.2	0.056	0.015 (J)	0.06		
3/12/2021							0.19
8/11/2021	0.02 (J)				0.042		
8/12/2021			0.044	<0.04			
8/13/2021		0.19				0.31	0.15
2/1/2022	0.016 (J)	0.17	0.056	0.011 (J)	0.05	0.44	0.14
8/2/2022	0.012 (J)	0.18	0.047	<0.04	0.043	0.31	0.14

Time Series

Constituent: Boron (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.981	3.23	0.494		
10/26/2016	1.28		0.55		
11/7/2016		2.95			
1/13/2017		4.01			
1/27/2017	1.19		0.428		
5/25/2017	1.33		0.544		
6/3/2017		2.62			
8/11/2017			0.524		
10/2/2017	1.19	2.92			
11/15/2017	1.24	2.71	0.531		
6/5/2018	1.2	2.6	0.53		
10/2/2018	1.2		0.47		
10/5/2018		2.9			
4/2/2019	1.1				
4/3/2019		3	0.45		
6/17/2019	1.1	2.4			
6/18/2019			0.45		
10/21/2019		2.4	0.5		
10/22/2019	1				
3/24/2020			0.44		
3/25/2020	1.1	1.6			
5/22/2020				1.5	0.026 (J)
6/15/2020	1.1				
6/16/2020				1.5	0.023 (J)
8/25/2020				1.4	0.016 (J)
9/18/2020					0.041 (J)
9/21/2020	0.93			1.4	
9/28/2020		2.3	0.43		
11/11/2020					0.009 (J)
11/12/2020				1.4	
12/16/2020				1.5	0.011 (J)
1/20/2021				1.5	<0.04
3/12/2021	1.1			1.5	0.016 (J)
3/15/2021		1.9	0.4		
8/16/2021	1.1	2	0.44		
8/19/2021				1.5	0.011 (J)
2/2/2022	0.91	1.6	0.33		
2/3/2022				1.6	0.016 (J)
8/4/2022	1	1.8	0.36	1.4	0.023 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.0005		<0.0005	<0.0005			
7/11/2016	<0.0005		<0.0005				
7/12/2016				<0.0005			
8/30/2016	<0.0005	<0.0005	<0.0005	<0.0005			
10/19/2016	<0.0005		<0.0005	<0.0005			
10/20/2016		<0.0005					
12/6/2016	<0.0005		<0.0005	<0.0005			
1/24/2017	<0.0005		0.0001 (J)	<0.0005			
1/25/2017		<0.0005					
3/21/2017	<0.0005		7E-05 (J)	<0.0005			
5/22/2017	<0.0005		0.0001 (J)	<0.0005			
5/25/2017		<0.0005					
8/11/2017		<0.0005					
11/15/2017		<0.0005					
4/2/2018	<0.0005		<0.0005				
4/3/2018				<0.0005			
6/4/2018	<0.0005		0.00014 (J)	<0.0005			
6/5/2018		<0.0005					
10/1/2018	<0.0005		<0.0005	<0.0005			
10/2/2018		<0.0005					
3/12/2019	<0.0005		0.00013 (J)	<0.0005			
4/1/2019				<0.0005			
4/2/2019	<0.0005		0.00015 (J)				
8/22/2019		<0.0005					
9/23/2019	<0.0005		<0.0005	<0.0005			
3/2/2020	<0.0005		<0.0005	<0.0005			
3/25/2020	<0.0005		0.00014 (J)	<0.0005			
8/24/2020		<0.0005					
8/25/2020			<0.0005	<0.0005			
8/28/2020	<0.0005						
9/15/2020	<0.0005		0.00012 (J)	<0.0005			
9/16/2020					<0.0005	<0.0005	
9/25/2020							<0.0005
11/10/2020					<0.0005	<0.0005	
11/11/2020							<0.0005
12/15/2020					<0.0005	<0.0005	
12/16/2020							<0.0005
1/19/2021					<0.0005	<0.0005	
1/20/2021							<0.0005
8/11/2021	<0.0005				<0.0005		
8/12/2021			0.00014 (J)	<0.0005			
8/13/2021		<0.0005				<0.0005	<0.0005
2/1/2022	<0.0005	<0.0005	0.00017 (J)	<0.0005	<0.0005	<0.0005	<0.0005
8/2/2022	<0.0005	<0.0005	0.00023 (J)	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.0005	<0.0005	<0.0005		
10/26/2016	<0.0005		<0.0005		
11/7/2016		<0.0005			
1/13/2017		<0.0005			
1/27/2017	<0.0005		<0.0005		
5/25/2017	<0.0005		<0.0005		
6/3/2017		<0.0005			
8/11/2017			<0.0005		
10/2/2017	<0.0005	<0.0005			
11/15/2017	<0.0005	<0.0005	<0.0005		
6/5/2018	<0.0005	<0.0005	<0.0005		
10/2/2018	<0.0005		<0.0005		
10/5/2018		<0.0005			
8/22/2019	<0.0005	<0.0005			
8/23/2019			<0.0005		
5/22/2020				<0.0005	<0.0005
6/16/2020				<0.0005	<0.0005
8/25/2020				<0.0005	<0.0005
8/26/2020	<0.0005	<0.0005			
8/27/2020			<0.0005		
9/18/2020					<0.0005
9/21/2020				<0.0005	
11/11/2020					<0.0005
11/12/2020				<0.0005	
12/16/2020				<0.0005	<0.0005
1/20/2021				<0.0005	<0.0005
8/16/2021	<0.0005	<0.0005	<0.0005		
8/19/2021				<0.0005	<0.0005
2/2/2022	<0.0005	<0.0005	<0.0005		
2/3/2022				<0.0005	<0.0005
8/4/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	138		22.9	76.2			
7/11/2016	97.2		22.3				
7/12/2016				61.5			
8/30/2016	97.5	71.3	26.4	65.1			
10/19/2016	99.2		21.7	73.2			
10/20/2016		90.3					
12/6/2016	105		18.2	74.9			
1/24/2017	95.7		18.5	69.6			
1/25/2017		77.3					
3/21/2017	106		18.6	75.7			
5/22/2017	107		17.8	71.5			
5/25/2017		69.9					
8/11/2017		79.5					
10/3/2017	102		20.2	76.3			
11/15/2017		72.8					
6/4/2018	124		19.1	73.4			
6/5/2018		71.4					
10/1/2018	108		20.5 (J)	80.9			
10/2/2018		66.6					
4/1/2019				80.5			
4/2/2019	132	60.9	22.5 (J)				
6/18/2019		75					
9/23/2019	118		19.5	71			
10/21/2019		80.8					
3/24/2020		81.2					
3/25/2020	127		23	89.8			
6/16/2020	130			85.1			
9/15/2020	103	75.8	21.1	73.1			
9/16/2020					56	30	
9/25/2020							56.8
11/10/2020					63.3	33.6	
11/11/2020							54.9
12/15/2020					62.6	28.7	
12/16/2020							56.4
1/19/2021					60.1	33	
1/20/2021							55
3/10/2021	111					18.3	
3/11/2021		60.4 (M1)	43.8	83.8	59.6		
3/12/2021							56.5
8/11/2021	113				61		
8/12/2021			21.9	84			
8/13/2021		62.9				28.9	53
2/1/2022	106	57.5	27.2	85.1	55.9	24.8	51.3
8/2/2022	117	69.5	31.2	84.6	54.1	20.9	49.9

Time Series

Constituent: Calcium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	152	178	90.4		
10/26/2016	156		94.5		
11/7/2016		170			
1/13/2017		192			
1/27/2017	157		84.2		
5/25/2017	173		100		
6/3/2017		172			
8/11/2017			99.1		
10/2/2017	168	195			
11/15/2017	182	184	103		
6/5/2018	161	195	103		
10/2/2018	174		100		
10/5/2018		181			
4/2/2019	150				
4/3/2019		184	96.7		
6/17/2019	164	173			
6/18/2019			97.1		
10/21/2019		173	96.9		
10/22/2019	171				
3/24/2020			104		
3/25/2020	170	139			
5/22/2020				140	112
6/15/2020	175				
6/16/2020				178	131
8/25/2020				186	130
9/18/2020					119
9/21/2020	152			155	
9/28/2020		167	107		
11/11/2020					133
11/12/2020				165	
12/16/2020				194	132
1/20/2021				177 (M1)	131
3/12/2021	174			165	138
3/15/2021		167	103		
8/16/2021	171	162	106		
8/19/2021				196	139
2/2/2022	159	148	95.9		
2/3/2022				175	157
8/4/2022	173	160	103	170	141

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	9.94		6.14	5.93			
7/11/2016	6.3		5.9				
7/12/2016				6.2			
8/30/2016	6	2.8	6.2	6.4			
10/19/2016	5.8		6.1	6.5			
10/20/2016		2.8					
12/6/2016	5.4		6	7.2			
1/24/2017	5.2		6.1	6.4			
1/25/2017		2.8					
3/21/2017	4.6		5.9	7.5			
5/22/2017	4.6		5.9	6.5			
5/25/2017		2.9					
8/11/2017		3					
10/3/2017	5.6		6.3	6.5			
11/15/2017		3.1					
6/4/2018	13.1		6.1	6.3			
6/5/2018		3					
10/1/2018	6.6		6.4	6.4			
10/2/2018		3.1					
4/1/2019				6.5			
4/2/2019	20.3	3.6	5.8				
6/18/2019		3.2					
9/23/2019	17.7		5.1	5.9			
10/21/2019		4.5					
3/24/2020		4.5					
3/25/2020	20.4		5.2	6.1			
6/16/2020	41.1			5.8			
9/15/2020	13.4	3.6	5	6			
9/16/2020					4.1	4.1	
9/25/2020							3.6
11/10/2020					4.4	7.8	
11/11/2020							3.3
12/15/2020					4.7	9.4	
12/16/2020							3.4
1/19/2021					4.1	9.5	
1/20/2021							3.5
3/10/2021	7.4					12.3	
3/11/2021		2.3	5.1	5.9	4.5		
3/12/2021							3.3
8/11/2021	9.6				3.5		
8/12/2021			5.2	4.8			
8/13/2021		2.6				39.9	3.3
2/1/2022	7.5	2.2	7	5.7	4.1	44.8	3.5
8/2/2022	14.1	2.7	7.8	5.9	4.3	19.8	3.9

Time Series

Constituent: Chloride (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	3.5	64	3		
10/26/2016	3.6		3.6		
11/7/2016		65			
1/13/2017		50			
1/27/2017	3.3		4		
5/25/2017	3.4		3.5		
6/3/2017		43			
8/11/2017			2.9		
10/2/2017	4.2	42			
11/15/2017	2.9	46	3.1		
6/5/2018	3.1	40.4	3.1		
10/2/2018	3.2		3.4		
10/5/2018		39			
4/2/2019	3.1				
4/3/2019		35.9	3.4		
6/17/2019		32.9			
6/18/2019			2.3 (J)		
10/21/2019		29.9	3.6		
10/22/2019	3.4				
3/24/2020			2.7		
3/25/2020	2.4	16.3			
5/22/2020				12.9	8.6
6/15/2020	2.3				
6/16/2020				10.4	8.6
8/25/2020				10.6	8.7
9/18/2020					8.4
9/21/2020	2.4			12.1	
9/28/2020		23.2	2.5		
11/11/2020					8.3
11/12/2020				10.4	
12/16/2020				5.3	8.9
1/20/2021				10.2	8.5
3/12/2021	2.4			10.8	8.5
3/15/2021		21.8	2.9		
8/16/2021	2.4	18	2.6		
8/19/2021				4.5	7.8
2/2/2022	2.5	16.8	2.6		
2/3/2022				8.1	8.5
8/4/2022	2.7	15.4	2.6	11.6	8.7

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.005		<0.005	<0.005			
7/11/2016	<0.005		<0.005				
7/12/2016				<0.005			
8/30/2016	<0.005	<0.005	<0.005	<0.005			
10/19/2016	<0.005		<0.005	<0.005			
10/20/2016		<0.005					
12/6/2016	<0.005		<0.005	<0.005			
1/24/2017	<0.005		<0.005	<0.005			
1/25/2017		<0.005					
3/21/2017	0.0005 (J)		<0.005	<0.005			
5/22/2017	<0.005		<0.005	0.0007 (J)			
5/25/2017		0.0006 (J)					
8/11/2017		0.0007 (J)					
11/15/2017		0.0006 (J)					
4/2/2018	<0.005		<0.005				
4/3/2018				<0.005			
6/5/2018		<0.005					
10/2/2018		<0.005					
3/12/2019	<0.005		<0.005	<0.005			
4/1/2019				<0.005			
4/2/2019	<0.005		0.0079 (J)				
8/22/2019		0.0006 (J)					
9/23/2019	<0.005		0.00058 (J)	<0.005			
10/21/2019		0.00068 (J)					
3/2/2020	<0.005		0.00041 (J)	<0.005			
3/24/2020		0.0013 (J)					
3/25/2020	0.00072 (J)		<0.005	<0.005			
8/24/2020		0.00093 (J)					
8/25/2020			0.00067 (J)	<0.005			
8/28/2020	<0.005						
9/15/2020	<0.005	0.00067 (J)	<0.005	<0.005			
9/16/2020					<0.005	0.0012 (J)	
9/25/2020							<0.005
11/10/2020					<0.005	0.00089 (J)	
11/11/2020							<0.005
12/15/2020					<0.005	0.00072 (J)	
12/16/2020							<0.005
1/19/2021					<0.005	<0.005	
1/20/2021							0.00067 (J)
3/10/2021	<0.005					<0.005	
3/11/2021		0.0017 (J)	<0.005	<0.005	<0.005		
3/12/2021							<0.005
8/11/2021	<0.005				<0.005		
8/12/2021			<0.005	<0.005			
8/13/2021		<0.005				0.0016 (J)	<0.005
2/1/2022	<0.005	<0.005	<0.005	<0.005	<0.005	0.0013 (J)	<0.005
8/2/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.005	<0.005	<0.005		
10/26/2016	<0.005		<0.005		
11/7/2016		<0.005			
1/13/2017		<0.005			
1/27/2017	<0.005		<0.005		
5/25/2017	<0.005		<0.005		
6/3/2017		<0.005			
8/11/2017			<0.005		
10/2/2017	<0.005	<0.005			
11/15/2017	<0.005	<0.005	<0.005		
6/5/2018	<0.005	<0.005	<0.005		
10/2/2018	<0.005		<0.005		
10/5/2018		<0.005			
8/22/2019	0.00072 (J)	<0.005			
8/23/2019			<0.005		
10/21/2019		<0.005	0.00046 (J)		
10/22/2019	<0.005				
3/24/2020			0.00051 (J)		
3/25/2020	0.0015 (J)	0.0005 (J)			
5/22/2020				0.00058 (J)	<0.005
6/16/2020				0.00052 (J)	<0.005
8/25/2020				<0.005	0.00096 (J)
8/26/2020	<0.005	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020	0.00065 (J)			<0.005	
9/28/2020		<0.005	<0.005		
11/11/2020					<0.005
11/12/2020				<0.005	
12/16/2020				<0.005	<0.005
1/20/2021				0.00081 (J)	<0.005
3/12/2021	<0.005			<0.005	<0.005
3/15/2021		<0.005	<0.005		
8/16/2021	<0.005	<0.005	<0.005		
8/19/2021				<0.005	<0.005
2/2/2022	<0.005	<0.005	<0.005		
2/3/2022				<0.005	<0.005
8/4/2022	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.005		0.0293	<0.005			
7/11/2016	0.0004 (J)		0.0267				
7/12/2016				<0.005			
8/30/2016	<0.005	<0.005	0.028	<0.005			
10/19/2016	<0.005		0.0201	<0.005			
10/20/2016		<0.005					
12/6/2016	<0.005		0.0184	<0.005			
1/24/2017	<0.005		0.0206	<0.005			
1/25/2017		<0.005					
3/21/2017	<0.005		0.0251	<0.005			
5/22/2017	<0.005		0.0263	<0.005			
5/25/2017		<0.005					
8/11/2017		<0.005					
11/15/2017		<0.005					
4/2/2018	<0.005		0.019				
4/3/2018				<0.005			
6/4/2018	<0.005		0.025	<0.005			
6/5/2018		<0.005					
10/1/2018	<0.005		0.026	<0.005			
10/2/2018		<0.005					
3/12/2019	<0.005		0.017	<0.005			
4/1/2019				<0.005			
4/2/2019	<0.005		0.019				
8/22/2019		<0.005					
9/23/2019	<0.005		0.038	<0.005			
10/21/2019		<0.005					
3/2/2020	<0.005		0.019	<0.005			
3/24/2020		<0.005					
3/25/2020	<0.005		0.02	<0.005			
8/24/2020		<0.005					
8/25/2020			0.018	<0.005			
8/28/2020	<0.005						
9/15/2020	<0.005	<0.005	0.021	<0.005			
9/16/2020					<0.005	<0.005	
9/25/2020							<0.005
11/10/2020					<0.005	<0.005	
11/11/2020							<0.005
12/15/2020					<0.005	<0.005	
12/16/2020							<0.005
1/19/2021					<0.005	<0.005	
1/20/2021							<0.005
3/10/2021	<0.005					<0.005	
3/11/2021		<0.005	0.013	<0.005	<0.005		
3/12/2021							<0.005
8/11/2021	<0.005				<0.005		
8/12/2021			0.022	<0.005			
8/13/2021		<0.005				<0.005	<0.005
2/1/2022	<0.005	<0.005	0.025	<0.005	<0.005	<0.005	<0.005
8/2/2022	0.00054 (J)	<0.005	0.024	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.0052 (J)	<0.005	<0.005		
10/26/2016	0.0041 (J)		<0.005		
11/7/2016		<0.005			
1/13/2017		<0.005			
1/27/2017	0.0034 (J)		<0.005		
5/25/2017	0.0035 (J)		<0.005		
6/3/2017		0.0005 (J)			
8/11/2017			<0.005		
10/2/2017	0.0036 (J)	0.0003 (J)			
11/15/2017	0.0032 (J)	0.0003 (J)	<0.005		
6/5/2018	0.0031 (J)	<0.005	<0.005		
10/2/2018	0.0025 (J)		<0.005		
10/5/2018		<0.005			
8/22/2019	0.0028 (J)	<0.005			
8/23/2019			<0.005		
10/21/2019		<0.005	<0.005		
10/22/2019	0.0031 (J)				
3/24/2020			<0.005		
3/25/2020	0.0036 (J)	<0.005			
5/22/2020				0.01	<0.005
6/16/2020				0.0096	<0.005
8/25/2020				0.0087	<0.005
8/26/2020	0.0023 (J)	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020	0.0041 (J)			0.012	
9/28/2020		<0.005	<0.005		
11/11/2020					<0.005
11/12/2020				0.012	
12/16/2020				0.0055	<0.005
1/20/2021				0.012	<0.005
3/12/2021	0.0027 (J)			0.014	<0.005
3/15/2021		<0.005	<0.005		
8/16/2021	0.0037 (J)	<0.005	<0.005		
8/19/2021				0.0054	<0.005
2/2/2022	0.0072	<0.005	<0.005		
2/3/2022				0.0086	<0.005
8/4/2022	0.0058	<0.005	<0.005	0.014	<0.005

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	0.397 (U)		0.627 (U)	0.342 (U)			
7/11/2016	0.738 (U)		1.38				
7/12/2016				0.499 (U)			
8/30/2016	0.581 (U)	0.972 (U)	1.05 (U)	0.976 (U)			
10/19/2016	0.213 (U)		1.11 (U)	0.626 (U)			
10/20/2016		0.496 (U)					
12/6/2016	0.444 (U)		0.741 (U)	0.805 (U)			
1/24/2017	0.373 (U)		0.908 (U)	0.336 (U)			
1/25/2017		1.13 (U)					
3/21/2017	0.816 (U)		0.567 (U)	0.358 (U)			
5/22/2017	0.554 (U)		0.638 (U)	0.744 (U)			
5/25/2017		0.192 (U)					
8/11/2017		0.908 (U)					
11/15/2017		0.662 (U)					
4/2/2018	0.405 (U)		0.761 (U)				
4/3/2018				0.684 (U)			
6/4/2018	1.13 (U)		0.975 (U)	0.0291 (U)			
6/5/2018		0.593 (U)					
10/1/2018	0.132 (U)		0.434 (U)	0.781 (U)			
10/2/2018		1.37					
3/12/2019	0.327 (U)		0.454 (U)	1.01 (U)			
4/1/2019				0.76 (U)			
4/2/2019	0.739 (U)		0.651 (U)				
8/22/2019		1.19 (U)					
9/30/2019	0.306 (U)		1.04 (U)	0.384 (U)			
10/21/2019		0.772 (U)					
3/2/2020	0.61 (U)		1.58	0.249 (U)			
3/24/2020		0.379 (U)					
3/25/2020	4.36		0.621 (U)	0.833 (U)			
8/24/2020		0.883 (U)					
8/25/2020			0.778 (U)	0.33 (U)			
8/28/2020	0 (U)						
9/15/2020	0.748 (U)	0.375 (U)	0.124 (U)	0.161 (U)			
9/16/2020					0.531 (U)	0.422 (U)	
9/25/2020							1.07 (U)
11/10/2020					0.788 (U)	0.293 (U)	
11/11/2020							0.49 (U)
12/15/2020					1.04 (U)	0.7 (U)	
12/16/2020							0.963 (U)
1/19/2021					0.685 (U)	0.79 (U)	
1/20/2021							0.682 (U)
8/11/2021	0.115 (U)				0.394 (U)		
8/12/2021			0.746 (U)	0.498 (U)			
8/13/2021		0.914 (U)				0.959 (U)	1.2
2/1/2022	0.143 (U)	0.276 (U)	0.588 (U)	0.266 (U)	1.12	0.665 (U)	0.895
8/2/2022	0.203 (U)	0.573 (U)	0.861 (U)	0.4 (U)	0.662 (U)	0.952 (U)	0.509 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	1.47	1.57	1.22		
10/26/2016	0.864 (U)		0.637 (U)		
11/7/2016		0.739 (U)			
1/13/2017		0.744 (U)			
1/27/2017	0.521 (U)		0.795 (U)		
5/25/2017	0.681 (U)		0.896 (U)		
6/3/2017		0 (U)			
8/11/2017			0.828 (U)		
10/2/2017	0.632 (U)	0.68 (U)			
11/15/2017	1.3	0.911 (U)	0.478 (U)		
6/5/2018	1.26 (U)	0.948 (U)	0.947 (U)		
10/2/2018	0.572 (U)		0.617 (U)		
10/5/2018		1.17 (U)			
8/22/2019	1.35	1.3			
8/23/2019			0.834		
10/21/2019		0.393 (U)	1.11 (U)		
10/22/2019	0.76 (U)				
3/24/2020			0.796 (U)		
3/25/2020	0.696 (U)	0.505 (U)			
5/22/2020				1.1 (U)	1.82
6/16/2020				1.62	1.82
8/25/2020				1.65	1.82
8/26/2020	0.357 (U)	1.96			
8/27/2020			0.494 (U)		
9/18/2020					0.841 (U)
9/21/2020	0.553 (U)			1.45	
9/28/2020		0.761 (U)	0.477 (U)		
11/11/2020					0.837 (U)
11/12/2020				0.633 (U)	
12/16/2020				0.818 (U)	1.26 (U)
1/20/2021				1.01 (U)	0.985 (U)
8/16/2021	1.25	0.192 (U)	0.734 (U)		
8/19/2021				0.721 (U)	1.11
2/2/2022	0.816 (U)	0.254 (U)	0.564 (U)		
2/3/2022				0.257 (U)	1.51
8/4/2022	0.687 (U)	1.16 (U)	0.16 (U)	0.971 (U)	1.34 (U)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	0.105 (J)		0.0303 (J)	0.0513 (J)			
7/11/2016	0.16 (J)		0.05 (J)				
7/12/2016				0.12 (J)			
8/30/2016	0.09 (J)	0.19 (J)	0.06 (J)	0.09 (J)			
10/19/2016	0.1 (J)		0.04 (J)	0.1 (J)			
10/20/2016		0.13 (J)					
12/6/2016	0.11 (J)		0.36	0.21 (J)			
1/24/2017	0.09 (J)		<0.1	0.06 (J)			
1/25/2017		0.22 (J)					
3/21/2017	0.13 (J)		<0.1	0.005 (J)			
5/22/2017	0.12 (J)		<0.1	0.05 (J)			
5/25/2017		0.12 (J)					
8/11/2017		0.12 (J)					
10/3/2017	0.13 (J)		<0.1	0.13 (J)			
11/15/2017		0.05 (J)					
4/2/2018	<0.1		<0.1				
4/3/2018				<0.1			
6/4/2018	0.074 (J)		<0.1	<0.1			
6/5/2018		0.15 (J)					
10/1/2018	<0.1		<0.1	<0.1			
10/2/2018		0.22 (J)					
3/12/2019	0.29 (J)		0.038 (J)	0.072 (J)			
4/1/2019				0.029 (J)			
4/2/2019	0.1 (J)	0.2 (J)	0.071 (J)				
6/18/2019		0.14 (J)					
8/22/2019		0.12 (J)					
9/23/2019	0.078 (J)		<0.1	<0.1			
10/21/2019		0.15 (J)					
3/2/2020	0.076 (J)		<0.1	<0.1			
3/24/2020		0.085 (J)					
3/25/2020	0.098 (J)		<0.1	<0.1			
6/16/2020	0.071 (J)			<0.1			
8/24/2020		0.075 (J)					
8/25/2020			<0.1	<0.1			
8/28/2020	0.08 (J)						
9/15/2020	0.082 (J)	0.096 (J)	<0.1	<0.1			
9/16/2020					0.22	0.22	
9/25/2020							0.21
11/10/2020					0.19	0.59	
11/11/2020							0.19
12/15/2020					0.21	0.67	
12/16/2020							0.18
1/19/2021					0.16	0.74	
1/20/2021							0.22
3/10/2021	0.079 (J)					0.65	
3/11/2021		0.059 (J)	0.1	<0.1	0.2		
3/12/2021							0.2
8/11/2021	0.058 (J)				0.15		
8/12/2021			<0.1	<0.1			
8/13/2021		0.065 (J)				0.87	0.2
2/1/2022	0.064 (J)	0.062 (J)	<0.1	<0.1	0.19	0.96	0.15
8/2/2022	0.09 (J)	0.1	0.053 (J)	0.067 (J)	0.22	0.8	0.21

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.65	0.14 (J)	0.15 (J)		
10/26/2016	0.6		0.3		
11/7/2016		0.18 (J)			
1/13/2017		0.14 (J)			
1/27/2017	1.2		0.3		
5/25/2017	1.4		0.05 (J)		
6/3/2017		0.15 (J)			
8/11/2017			0.1 (J)		
10/2/2017	1	1.2			
11/15/2017	1.3	0.6	<0.1		
6/5/2018	0.48	0.19 (J)	0.078 (J)		
10/2/2018	0.34		0.078 (J)		
10/5/2018		0.23 (J)			
4/2/2019	0.47				
4/3/2019		0.14 (J)	0.089 (J)		
6/17/2019	1.2				
8/22/2019	0.3 (J)	0.2 (J)			
8/23/2019			0.11 (J)		
10/21/2019		0.18 (J)	0.073 (J)		
10/22/2019	0.53				
3/24/2020			<0.1		
3/25/2020	0.43	0.095 (J)			
5/22/2020				0.1 (J)	0.46
6/15/2020	0.37				
6/16/2020				0.12	0.44
8/25/2020				0.16	0.52
8/26/2020	0.48	0.16			
8/27/2020			<0.1		
9/18/2020					0.43
9/21/2020	0.33			0.11	
9/28/2020		0.15	<0.1		
11/11/2020					0.45
11/12/2020				0.12	
12/16/2020				0.2	0.49
1/20/2021				0.13	0.44
3/12/2021	0.42			0.12	0.46
3/15/2021		0.16	<0.1		
8/16/2021	0.39	0.15	<0.1		
8/19/2021				0.17	0.43
2/2/2022	0.36	0.15	<0.1		
2/3/2022				0.18	0.51
8/4/2022	0.38	0.18	0.074 (J)	0.15	0.5

Time Series

Constituent: Lead (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.001		<0.001	<0.001			
7/11/2016	<0.001		<0.001				
7/12/2016				0.0001 (J)			
8/30/2016	<0.001	<0.001	<0.001	<0.001			
10/19/2016	<0.001		<0.001	<0.001			
10/20/2016		<0.001					
12/6/2016	<0.001		<0.001	<0.001			
1/24/2017	<0.001		<0.001	<0.001			
1/25/2017		<0.001					
3/21/2017	<0.001		6E-05 (J)	0.0001 (J)			
5/22/2017	<0.001		9E-05 (J)	<0.001			
5/25/2017		<0.001					
8/11/2017		0.0001 (J)					
11/15/2017		0.0002 (J)					
4/2/2018	<0.001		<0.001				
4/3/2018				<0.001			
6/5/2018		<0.001					
10/2/2018		<0.001					
3/12/2019	<0.001		<0.001	<0.001			
4/1/2019				<0.001			
4/2/2019	<0.001		<0.001				
8/22/2019		<0.001					
9/23/2019	7.8E-05 (J)		9.2E-05 (J)	<0.001			
10/21/2019		9.7E-05 (J)					
3/2/2020	4.8E-05 (J)		9.5E-05 (J)	<0.001			
3/24/2020		0.00012 (J)					
3/25/2020	<0.001		0.00011 (J)	<0.001			
8/24/2020		7.7E-05 (J)					
8/25/2020			8.5E-05 (J)	<0.001			
8/28/2020	7E-05 (J)						
9/15/2020	<0.001	4.3E-05 (J)	8E-05 (J)	4.2E-05 (J)			
9/16/2020					5E-05 (J)	0.00021 (J)	
9/25/2020							<0.001
11/10/2020					6.9E-05 (J)	0.0002 (J)	
11/11/2020							4E-05 (J)
12/15/2020					8.2E-05 (J)	0.00011 (J)	
12/16/2020							5.8E-05 (J)
1/19/2021					4.4E-05 (J)	<0.001	
1/20/2021							8.2E-05 (J)
3/10/2021	<0.001					<0.001	
3/11/2021		9.3E-05 (J)	7.6E-05 (J)	<0.001	9.4E-05 (J)		
3/12/2021							5.5E-05 (J)
8/11/2021	<0.001				<0.001		
8/12/2021			<0.001	<0.001			
8/13/2021		<0.001				<0.001	<0.001
2/1/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/2/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Lead (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.001	<0.001	<0.001		
10/26/2016	0.0002 (J)		<0.001		
11/7/2016		<0.001			
1/13/2017		<0.001			
1/27/2017	<0.001		<0.001		
5/25/2017	9E-05 (J)		<0.001		
6/3/2017		7E-05 (J)			
8/11/2017			8E-05 (J)		
10/2/2017	8E-05 (J)	<0.001			
11/15/2017	<0.001	<0.001	<0.001		
6/5/2018	<0.001	0.00036 (J)	<0.001		
10/2/2018	<0.001		<0.001		
10/5/2018		<0.001			
8/22/2019	<0.001	<0.001			
8/23/2019			4.9E-05 (J)		
10/21/2019		<0.001	4.9E-05 (J)		
10/22/2019	<0.001				
3/24/2020			9.4E-05 (J)		
3/25/2020	<0.001	<0.001			
5/22/2020				0.00014 (J)	<0.001
6/16/2020				0.00013 (J)	<0.001
8/25/2020				<0.001	4.5E-05 (J)
8/26/2020	<0.001	<0.001			
8/27/2020			<0.001		
9/18/2020					<0.001
9/21/2020	<0.001			<0.001	
9/28/2020		<0.001	7.5E-05 (J)		
11/11/2020					4.2E-05 (J)
11/12/2020				4.7E-05 (J)	
12/16/2020				<0.001	<0.001
1/20/2021				9.2E-05 (J)	<0.001
3/12/2021	<0.001			4.4E-05 (J)	4.6E-05 (J)
3/15/2021		0.00015 (J)	<0.001		
8/16/2021	<0.001	<0.001	<0.001		
8/19/2021				<0.001	<0.001
2/2/2022	<0.001	<0.001	<0.001		
2/3/2022				<0.001	<0.001
8/4/2022	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.03		<0.03	<0.03			
7/11/2016	<0.03		0.0014 (J)				
7/12/2016				0.0024 (J)			
8/30/2016	<0.03	<0.03	<0.03	0.0025 (J)			
10/19/2016	<0.03		<0.03	0.003 (J)			
10/20/2016		<0.03					
12/6/2016	<0.03		<0.03	0.0033 (J)			
1/24/2017	<0.03		<0.03	0.003 (J)			
1/25/2017		<0.03					
3/21/2017	<0.03		0.0012 (J)	0.0034 (J)			
5/22/2017	<0.03		<0.03	0.003 (J)			
5/25/2017		<0.03					
8/11/2017		<0.03					
11/15/2017		<0.03					
4/2/2018	<0.03		0.0015 (J)				
4/3/2018				0.003 (J)			
6/4/2018	0.001 (J)		0.0016 (J)	0.0027 (J)			
6/5/2018		<0.03					
10/1/2018	0.00099 (J)		0.0013 (J)	0.0032 (J)			
10/2/2018		<0.03					
3/12/2019	0.001 (J)		0.0018 (J)	0.0032 (J)			
4/1/2019				0.0032 (J)			
4/2/2019	0.001 (J)		0.0018 (J)				
8/22/2019		<0.03					
9/23/2019	0.0011 (J)		0.0016 (J)	0.0029 (J)			
10/21/2019		<0.03					
3/2/2020	0.0012 (J)		0.0017 (J)	0.0037 (J)			
3/24/2020		<0.03					
3/25/2020	0.00083 (J)		0.0017 (J)	0.0035 (J)			
8/24/2020		<0.03					
8/25/2020			0.0015 (J)	0.0027 (J)			
8/28/2020	0.00087 (J)						
9/15/2020	0.00087 (J)	<0.03	0.0015 (J)	0.0026 (J)			
9/16/2020					0.0018 (J)	0.014 (J)	
9/25/2020							0.0049 (J)
11/10/2020					0.0013 (J)	0.025 (J)	
11/11/2020							0.0032 (J)
12/15/2020					0.0019 (J)	0.028 (J)	
12/16/2020							0.0045 (J)
1/19/2021					0.0025 (J)	<0.03	
1/20/2021							0.0025 (J)
3/10/2021	0.0009 (J)					0.03	
3/11/2021		<0.03	0.0011 (J)	0.0035 (J)	0.0022 (J)		
3/12/2021							0.005 (J)
8/11/2021	0.00078 (J)				0.0024 (J)		
8/12/2021			0.0012 (J)	0.0028 (J)			
8/13/2021		<0.03				0.032	0.0044 (J)
2/1/2022	0.0011 (J)	<0.03	0.0017 (J)	0.0037 (J)	0.0024 (J)	0.048	0.0055 (J)
8/2/2022	<0.03	<0.03	0.0013 (J)	0.003 (J)	0.0019 (J)	0.041	0.0045 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.0333 (J)	0.0077 (J)	<0.03		
10/26/2016	0.0352 (J)		<0.03		
11/7/2016		0.0089 (J)			
1/13/2017		0.0091 (J)			
1/27/2017	0.0329 (J)		<0.03		
5/25/2017	0.0347 (J)		0.0011 (J)		
6/3/2017		0.0104 (J)			
8/11/2017			<0.03		
10/2/2017	0.0337 (J)	0.0095 (J)			
11/15/2017	0.0347 (J)	0.0086 (J)	<0.03		
6/5/2018	0.033 (J)	0.0092 (J)	0.0012 (J)		
10/2/2018	0.031 (J)		0.0012 (J)		
10/5/2018		0.0091 (J)			
8/22/2019	0.029 (J)	0.0084 (J)			
8/23/2019			0.0011 (J)		
10/21/2019		0.009 (J)	0.0011 (J)		
10/22/2019	0.03 (J)				
3/24/2020			0.0012 (J)		
3/25/2020	0.024 (J)	0.0066 (J)			
5/22/2020				0.0052 (J)	0.0046 (J)
6/16/2020				0.0053 (J)	0.0045 (J)
8/25/2020				0.0037 (J)	0.0037 (J)
8/26/2020	0.023 (J)	0.0071 (J)			
8/27/2020			0.00091 (J)		
9/18/2020					0.0035 (J)
9/21/2020	0.023 (J)			0.0038 (J)	
9/28/2020		0.0076 (J)	0.0011 (J)		
11/11/2020					0.0032 (J)
11/12/2020				0.0038 (J)	
12/16/2020				0.0055 (J)	0.0029 (J)
1/20/2021				0.0046 (J)	0.0038 (J)
3/12/2021	0.023 (J)			0.0039 (J)	0.0038 (J)
3/15/2021		0.0077 (J)	0.001 (J)		
8/16/2021	0.025 (J)	0.0075 (J)	0.0011 (J)		
8/19/2021				0.0074 (J)	0.0032 (J)
2/2/2022	0.025 (J)	0.0082 (J)	0.0012 (J)		
2/3/2022				0.0057 (J)	0.0038 (J)
8/4/2022	0.023 (J)	0.0069 (J)	0.0011 (J)	0.0035 (J)	0.0034 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.0002		<0.0002	<0.0002			
7/11/2016	<0.0002		<0.0002				
7/12/2016				<0.0002			
8/30/2016	4E-05 (J)	4.3E-05 (J)	4E-05 (J)	<0.0002			
10/19/2016	<0.0002		<0.0002	<0.0002			
10/20/2016		<0.0002					
12/6/2016	<0.0002		<0.0002	<0.0002			
1/24/2017	<0.0002		<0.0002	<0.0002			
1/25/2017		4E-05 (J)					
3/21/2017	<0.0002		<0.0002	<0.0002			
5/22/2017	<0.0002		<0.0002	<0.0002			
5/25/2017		7E-05 (J)					
8/11/2017		<0.0002					
11/15/2017		<0.0002					
4/2/2018	<0.0002		<0.0002				
4/3/2018				<0.0002			
6/5/2018		<0.0002					
10/2/2018		<0.0002					
3/12/2019	<0.0002		<0.0002	<0.0002			
8/22/2019		<0.0002					
3/2/2020	<0.0002		<0.0002	<0.0002			
8/24/2020		<0.0002					
8/25/2020			<0.0002	<0.0002			
8/28/2020	<0.0002						
9/16/2020					<0.0002	<0.0002	
9/25/2020							<0.0002
11/10/2020					<0.0002	<0.0002	
11/11/2020							<0.0002
12/15/2020					<0.0002	<0.0002	
12/16/2020							<0.0002
1/19/2021					<0.0002	<0.0002	
1/20/2021							<0.0002
8/11/2021	<0.0002				<0.0002		
8/12/2021			<0.0002	<0.0002			
8/13/2021		<0.0002				<0.0002	<0.0002
2/1/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/2/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	4E-05 (J)	<0.0002	<0.0002		
10/26/2016	<0.0002		<0.0002		
11/7/2016		<0.0002			
1/13/2017		<0.0002			
1/27/2017	<0.0002		<0.0002		
5/25/2017	7E-05 (J)		5.1E-05 (J)		
6/3/2017		<0.0002			
8/11/2017			<0.0002		
10/2/2017	<0.0002	<0.0002			
11/15/2017	<0.0002	<0.0002	<0.0002		
6/5/2018	<0.0002	<0.0002	<0.0002		
10/2/2018	<0.0002		<0.0002		
10/5/2018		<0.0002			
8/22/2019	<0.0002	<0.0002			
8/23/2019			<0.0002		
5/22/2020				<0.0002	<0.0002
6/16/2020				<0.0002	<0.0002
8/25/2020				<0.0002	<0.0002
8/26/2020	<0.0002	<0.0002			
8/27/2020			<0.0002		
9/18/2020					<0.0002
9/21/2020				<0.0002	
11/11/2020					<0.0002
11/12/2020				<0.0002	
12/16/2020				<0.0002	<0.0002
1/20/2021				<0.0002	<0.0002
8/16/2021	<0.0002	<0.0002	<0.0002		
8/19/2021				<0.0002	<0.0002
2/2/2022	<0.0002	<0.0002	<0.0002		
2/3/2022				<0.0002	<0.0002
8/4/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.01		<0.01	<0.01			
7/11/2016	<0.01		<0.01				
7/12/2016				<0.01			
8/30/2016	<0.01	0.0026 (J)	<0.01	<0.01			
10/19/2016	<0.01		<0.01	<0.01			
10/20/2016		0.005 (J)					
12/6/2016	<0.01		<0.01	<0.01			
1/24/2017	<0.01		<0.01	<0.01			
1/25/2017		0.0054 (J)					
3/21/2017	<0.01		<0.01	<0.01			
5/22/2017	<0.01		<0.01	<0.01			
5/25/2017		0.0018 (J)					
8/11/2017		0.0029 (J)					
11/15/2017		0.0018 (J)					
4/2/2018	<0.01		<0.01				
4/3/2018				<0.01			
6/4/2018	<0.01		<0.01	<0.01			
6/5/2018		0.0028 (J)					
10/1/2018	<0.01		<0.01	<0.01			
10/2/2018		<0.01					
3/12/2019	<0.01		<0.01	<0.01			
4/1/2019				<0.01			
4/2/2019	<0.01		<0.01				
8/22/2019		0.003 (J)					
9/23/2019	<0.01		<0.01	<0.01			
10/21/2019		0.0049 (J)					
3/2/2020	<0.01		<0.01	<0.01			
3/24/2020		0.0091 (J)					
3/25/2020	<0.01		<0.01	<0.01			
6/16/2020	<0.01			<0.01			
8/24/2020		0.0031 (J)					
8/25/2020			<0.01	<0.01			
8/28/2020	<0.01						
9/15/2020	<0.01	0.0045 (J)	<0.01	<0.01			
9/16/2020					0.0044 (J)	0.0019 (J)	
9/25/2020							0.0014 (J)
11/10/2020					0.0072 (J)	0.0018 (J)	
11/11/2020							0.0049 (J)
12/15/2020					0.0044 (J)	0.0019 (J)	
12/16/2020							0.0024 (J)
1/19/2021					0.0038 (J)	<0.01	
1/20/2021							0.0063 (J)
3/10/2021	<0.01					0.0019 (J)	
3/11/2021		0.0014 (J)	<0.01	<0.01	0.0064 (J)		
3/12/2021							0.0019 (J)
8/11/2021	<0.01				0.0034 (J)		
8/12/2021			<0.01	<0.01			
8/13/2021		0.0022 (J)				0.0051 (J)	<0.01
2/1/2022	<0.01	0.002 (J)	<0.01	<0.01	0.0036 (J)	0.0055 (J)	<0.01
8/2/2022	<0.01	0.0042 (J)	<0.01	<0.01	0.0042 (J)	0.002 (J)	<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.0176	<0.01	<0.01		
10/26/2016	0.0187		<0.01		
11/7/2016		<0.01			
1/13/2017		<0.01			
1/27/2017	0.0214		<0.01		
5/25/2017	0.0231		0.0009 (J)		
6/3/2017		<0.01			
8/11/2017			0.0013 (J)		
10/2/2017	0.0259	<0.01			
11/15/2017	0.0281	<0.01	0.0012 (J)		
6/5/2018	0.033	<0.01	<0.01		
10/2/2018	0.036		<0.01		
10/5/2018		<0.01			
8/22/2019	0.039	<0.01			
8/23/2019			0.0014 (J)		
10/21/2019		<0.01	0.0013 (J)		
10/22/2019	0.04				
3/24/2020			0.001 (J)		
3/25/2020	0.034	<0.01			
5/22/2020				<0.01	<0.01
6/16/2020				<0.01	<0.01
8/25/2020				0.00099 (J)	<0.01
8/26/2020	0.05	<0.01			
8/27/2020			0.00091 (J)		
9/18/2020					<0.01
9/21/2020	0.043			<0.01	
9/28/2020		<0.01	0.0009 (J)		
11/11/2020					<0.01
11/12/2020				0.0017 (J)	
12/16/2020				0.014	<0.01
1/20/2021				0.0013 (J)	<0.01
3/12/2021	0.033			0.0012 (J)	<0.01
3/15/2021		<0.01	0.00092 (J)		
8/16/2021	0.035	<0.01	0.00091 (J)		
8/19/2021				0.021	<0.01
2/2/2022	0.034	<0.01	0.001 (J)		
2/3/2022				0.0067 (J)	<0.01
8/4/2022	0.032	<0.01	<0.01	0.0023 (J)	<0.01

Time Series

Constituent: pH (s.u.) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	7.27		5.81	7.45			
7/11/2016	7.06		5.68				
7/12/2016				7.32			
8/30/2016	7.28	6.75	5.63	7.43			
10/19/2016	7.02		5.46	7.03			
10/20/2016		6.73					
12/6/2016	7.09		5.38	7.08			
1/24/2017	7.2		5.37	7.39			
1/25/2017		6.88					
3/21/2017	7.01		4.9	6.83			
5/22/2017	7.11		5.2	7.02			
5/25/2017		6.55					
8/11/2017		6.56					
10/3/2017	7.21		5.3	7.47			
11/15/2017		6.47					
4/2/2018	7.1		5.4				
4/3/2018				7.38			
6/4/2018	7.06		5.27	7.38			
6/5/2018		6.66					
10/1/2018	7.09		5.31	7.13			
10/2/2018		6.44					
3/12/2019	7.03		5.42	7.29			
4/1/2019				7.16			
4/2/2019	6.86	6.57	5.41				
8/22/2019		6.51					
9/23/2019	7.02		5.33	7.3			
10/21/2019		6.69					
3/2/2020	7.1		5.43	7.12			
3/24/2020		7.08					
3/25/2020	6.95		5.36	7.4			
6/16/2020	6.97			7.31			
8/24/2020		6.54					
8/25/2020			5.17	7.14			
8/28/2020	7.02						
9/15/2020	7.15	6.68	5.22	7.29			
9/16/2020					7.52	7.83	
9/25/2020							7.57
11/10/2020					7.27	7.84	
11/11/2020							7.4
12/15/2020					7.39	7.87	
12/16/2020							7.39
1/19/2021					7.39	7.86	
1/20/2021							7.47
3/10/2021	6.95					7.92	
3/11/2021		6.65	5.8	7.33	7.46		
3/12/2021							7.52
8/11/2021	6.98				7.4		
8/12/2021			5.05	7.31			
8/13/2021		6.56				7.77	7.42
2/1/2022	7.19	6.57	5.24	7.45	7.52	8.25	7.45
8/2/2022	7.03	6.67	4.57	7.02	7.15	7.9	7.39

Time Series

Constituent: pH (s.u.) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	6.73	6.62	6.99		
10/27/2016	6.77		7.06		
11/7/2016		6.71			
1/13/2017		6.57			
1/27/2017	6.74		7.13		
5/25/2017	6.99		7.1		
6/3/2017		6.71			
8/11/2017			7.02		
10/2/2017	7.66	7.65			
11/15/2017	6.71	6.69	7.04		
6/5/2018	6.83	6.79	7.17		
10/2/2018	6.83		7.08		
10/5/2018		6.71			
4/2/2019	6.87				
4/3/2019		6.73	7.14		
8/22/2019	6.79	6.77			
8/23/2019			7.02		
10/21/2019		6.74	7.05		
10/22/2019	6.74				
3/24/2020			7.18		
3/25/2020	6.8	6.91			
5/22/2020				6.43	7.22
6/15/2020	6.8				
6/16/2020				6.29	6.92
8/25/2020				6.36	6.78
8/26/2020	6.96	6.73			
8/27/2020			7.15		
9/18/2020					6.97
9/21/2020	6.98			6.22	
9/28/2020		6.93	7.27		
11/11/2020					6.86
11/12/2020				6.13	
12/16/2020				6.61	6.93
1/20/2021				6.23	6.99
3/12/2021	6.95			6.18	7.05
3/15/2021		6.87	7.22		
8/16/2021	6.92	6.74	7.09		
8/19/2021				7.24	7.32
2/2/2022	7	6.92	7.28		
2/3/2022				6.56	7.01
8/4/2022	6.93	6.8	7.15	6.09	6.99

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.005		<0.005	<0.005			
7/11/2016	<0.005		<0.005				
7/12/2016				<0.005			
8/30/2016	<0.005	<0.005	<0.005	<0.005			
10/19/2016	<0.005		<0.005	<0.005			
10/20/2016		<0.005					
12/6/2016	<0.005		<0.005	<0.005			
1/24/2017	<0.005		<0.005	<0.005			
1/25/2017		<0.005					
3/21/2017	<0.005		<0.005	<0.005			
5/22/2017	<0.005		<0.005	<0.005			
5/25/2017		<0.005					
8/11/2017		<0.005					
11/15/2017		<0.005					
4/2/2018	<0.005		<0.005				
4/3/2018				<0.005			
6/4/2018	<0.005		<0.005	<0.005			
6/5/2018		<0.005					
10/1/2018	<0.005		<0.005	<0.005			
10/2/2018		0.0015 (J)					
3/12/2019	<0.005		<0.005	<0.005			
4/1/2019				<0.005			
4/2/2019	<0.005		<0.005				
8/22/2019		<0.005					
9/23/2019	<0.005		<0.005	<0.005			
3/2/2020	<0.005		<0.005	<0.005			
3/25/2020	<0.005		<0.005	<0.005			
8/24/2020		<0.005					
8/25/2020			<0.005	<0.005			
8/28/2020	<0.005						
9/15/2020	<0.005		<0.005	<0.005			
9/16/2020					<0.005	<0.005	
9/25/2020							<0.005
11/10/2020					<0.005	<0.005	
11/11/2020							<0.005
12/15/2020					<0.005	<0.005	
12/16/2020							<0.005
1/19/2021					<0.005	<0.005	
1/20/2021							<0.005
8/11/2021	<0.005				<0.005		
8/12/2021			<0.005	<0.005			
8/13/2021		<0.005				<0.005	<0.005
2/1/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/2/2022	<0.005	<0.005	0.0014 (J)	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.005	<0.005	<0.005		
10/26/2016	<0.005		<0.005		
11/7/2016		<0.005			
1/13/2017		0.0011 (J)			
1/27/2017	<0.005		<0.005		
5/25/2017	<0.005		<0.005		
6/3/2017		<0.005			
8/11/2017			<0.005		
10/2/2017	0.002 (J)	<0.005			
11/15/2017	<0.005	<0.005	<0.005		
6/5/2018	<0.005	<0.005	<0.005		
10/2/2018	<0.005		0.0014 (J)		
10/5/2018		<0.005			
8/22/2019	<0.005	<0.005			
8/23/2019			<0.005		
5/22/2020				<0.005	<0.005
6/16/2020				<0.005	<0.005
8/25/2020				<0.005	<0.005
8/26/2020	<0.005	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020				<0.005	
11/11/2020					<0.005
11/12/2020				<0.005	
12/16/2020				<0.005	<0.005
1/20/2021				<0.005	<0.005
8/16/2021	<0.005	<0.005	<0.005		
8/19/2021				<0.005	<0.005
2/2/2022	<0.005	<0.005	<0.005		
2/3/2022				<0.005	<0.005
8/4/2022	<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	66.9		48.6	42.3			
7/11/2016	41		45				
7/12/2016				44			
8/30/2016	36	49	42	40			
10/19/2016	46		44	43			
10/20/2016		49					
12/6/2016	59		44	43			
1/24/2017	46		46	48			
1/25/2017		48					
3/21/2017	63		46	45			
5/22/2017	77		48	46			
5/25/2017		48					
8/11/2017		47					
10/3/2017	42		47	48			
11/15/2017		49					
6/4/2018	71.8		47.8	46.6			
6/5/2018		48.9					
10/1/2018	49.1		48.1	48.6			
10/2/2018		48.6					
4/1/2019				50.4			
4/2/2019	84.3	39.6	48.7				
6/18/2019		44.5					
9/23/2019	70.2		47.2	43.9			
10/21/2019		45.6					
3/24/2020		25.9					
3/25/2020	85.9		46.3	50.5			
6/16/2020	88.2			49.5			
9/15/2020	47.3	41.4	51.5	44.7			
9/16/2020					43	43	
9/25/2020							6.8
11/10/2020					39	6.3	
11/11/2020							11.2
12/15/2020					38.8	6.7	
12/16/2020							11.3
1/19/2021					37.3	7.4	
1/20/2021							14.2
3/10/2021	49.6					<1	
3/11/2021		40.7	52.9	50.4	38.6		
3/12/2021							8.7
8/11/2021	48.9				30.5		
8/12/2021			47.4	38.6			
8/13/2021		42.1				56.1	8.1
2/1/2022	43.7	41.1	67.1	46	37.5	56.3	2.5
8/2/2022	58.1	41.5	86.9	43.5	37	13.2	2.1

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	290	280	72		
10/26/2016	280		71		
11/7/2016		300			
1/13/2017		270			
1/27/2017	290		74		
5/25/2017	280		73		
6/3/2017		270			
8/11/2017			71		
10/2/2017	300	330			
11/15/2017	300	280	70		
6/5/2018	273	241	74		
10/2/2018	328		80.7		
10/5/2018		271			
4/2/2019	256				
4/3/2019		230	75.2		
6/17/2019	243	219			
6/18/2019			75.3		
10/21/2019		238	78.5		
10/22/2019	266				
3/24/2020			74.6		
3/25/2020	226	116			
5/22/2020				345	56.1
6/15/2020	212				
6/16/2020				320	57.6
8/25/2020				353	62.8
9/18/2020					62.7
9/21/2020	225			352	
9/28/2020		182	86.2		
11/11/2020					62.3
11/12/2020				300	
12/16/2020				306	68.1
1/20/2021				335	66.6
3/12/2021	210			293	69.7
3/15/2021		177	74		
8/16/2021	211	158	74		
8/19/2021				264	64.4
2/2/2022	201	147	70.7		
2/3/2022				304	66.8
8/4/2022	230	162	73.1	331	68.3

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	<0.001		<0.001	<0.001			
7/11/2016	<0.001		<0.001				
7/12/2016				<0.001			
8/30/2016	<0.001	<0.001	<0.001	<0.001			
10/19/2016	<0.001		<0.001	<0.001			
10/20/2016		<0.001					
12/6/2016	<0.001		<0.001	<0.001			
1/24/2017	<0.001		<0.001	<0.001			
1/25/2017		<0.001					
3/21/2017	<0.001		3E-05 (J)	<0.001			
5/22/2017	<0.001		<0.001	<0.001			
5/25/2017		<0.001					
8/11/2017		<0.001					
11/15/2017		<0.001					
4/2/2018	<0.001		<0.001				
4/3/2018				<0.001			
6/4/2018	<0.001		<0.001	<0.001			
6/5/2018		<0.001					
10/1/2018	<0.001		<0.001	<0.001			
10/2/2018		<0.001					
3/12/2019	<0.001		<0.001	<0.001			
4/1/2019				<0.001			
4/2/2019	<0.001		<0.001				
8/22/2019		<0.001					
9/23/2019	<0.001		<0.001	<0.001			
3/2/2020	<0.001		<0.001	<0.001			
3/25/2020	<0.001		<0.001	<0.001			
8/24/2020		<0.001					
8/25/2020			<0.001	<0.001			
8/28/2020	<0.001						
9/15/2020	<0.001		<0.001	<0.001			
9/16/2020					<0.001	<0.001	
9/25/2020							<0.001
11/10/2020					<0.001	<0.001	
11/11/2020							<0.001
12/15/2020					<0.001	<0.001	
12/16/2020							<0.001
1/19/2021					<0.001	<0.001	
1/20/2021							<0.001
8/11/2021	<0.001				<0.001		
8/12/2021			<0.001	<0.001			
8/13/2021		<0.001				<0.001	<0.001
2/1/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/2/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.001	<0.001	<0.001		
10/26/2016	<0.001		<0.001		
11/7/2016		<0.001			
1/13/2017		<0.001			
1/27/2017	<0.001		<0.001		
5/25/2017	<0.001		<0.001		
6/3/2017		<0.001			
8/11/2017			<0.001		
10/2/2017	<0.001	<0.001			
11/15/2017	<0.001	<0.001	<0.001		
6/5/2018	<0.001	<0.001	<0.001		
10/2/2018	<0.001		<0.001		
10/5/2018		<0.001			
8/22/2019	<0.001	<0.001			
8/23/2019			<0.001		
5/22/2020				<0.001	<0.001
6/16/2020				<0.001	<0.001
8/25/2020				<0.001	<0.001
8/26/2020	<0.001	<0.001			
8/27/2020			<0.001		
9/18/2020					<0.001
9/21/2020				<0.001	
11/11/2020					<0.001
11/12/2020				<0.001	
12/16/2020				<0.001	<0.001
1/20/2021				<0.001	<0.001
8/16/2021	<0.001	<0.001	<0.001		
8/19/2021				<0.001	<0.001
2/2/2022	<0.001	<0.001	<0.001		
2/3/2022				<0.001	<0.001
8/4/2022	<0.001	<0.001	<0.001	<0.001	<0.001

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016	421		143	267			
7/11/2016	363		125				
7/12/2016				249			
8/30/2016	330	280	168	254			
10/19/2016	380		176	357			
10/20/2016		265					
12/6/2016	377		145	285			
1/24/2017	342		129	300			
1/25/2017		371					
3/21/2017	340		103	288			
5/22/2017	338		92	263			
5/25/2017		237					
8/11/2017		253					
10/3/2017	343		127	300			
11/15/2017		261					
6/4/2018	415		140	266			
6/5/2018		276					
10/1/2018	354		135	291			
10/2/2018		256					
4/1/2019				284			
4/2/2019	452	814 (o)	133				
6/18/2019		233					
9/23/2019	442		129	268			
10/21/2019		296					
3/24/2020		278					
3/25/2020	496		138	284			
6/16/2020	632			448			
9/15/2020	265	267	124	258			
9/16/2020					272	270	
9/25/2020							263
11/10/2020					307	287	
11/11/2020							276
12/15/2020					289	295	
12/16/2020							294
1/19/2021					270	278	
1/20/2021							289
3/10/2021	348					289	
3/11/2021		206	169	267	279		
3/12/2021							260
8/11/2021	366				277		
8/12/2021			118	265			
8/13/2021		201				436	272
2/1/2022	270	203	156	350	156	444	268
8/2/2022	400	217	196	287	278	311	261

Time Series

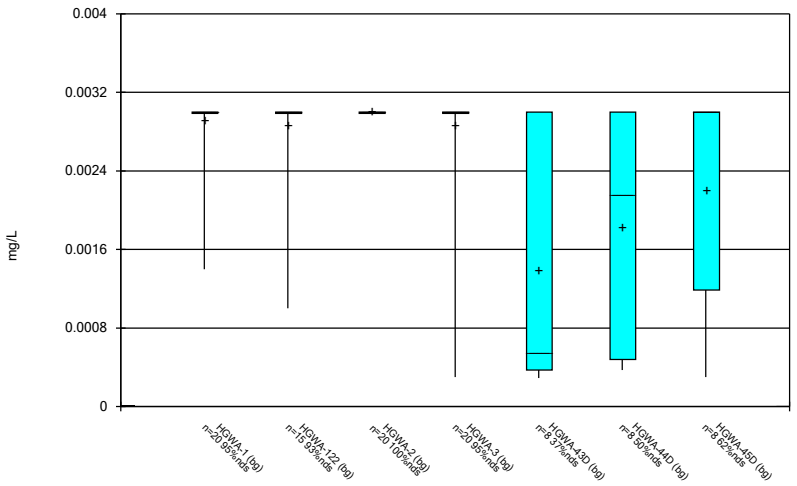
Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	700	876	379		
10/26/2016	795		409		
11/7/2016		1000			
1/13/2017		827			
1/27/2017	706		370		
5/25/2017	669		351		
6/3/2017		846			
8/11/2017			322		
10/2/2017	672	884			
11/15/2017	721	838	350		
6/5/2018	723	823	360		
10/2/2018	703		363		
10/5/2018		813			
4/2/2019	540				
4/3/2019		785	369		
6/17/2019		751			
10/21/2019		771	357		
10/22/2019	693				
3/24/2020			355		
3/25/2020	665	521			
5/22/2020				809	496
6/15/2020	685				
6/16/2020				665	508
8/25/2020				772	505
9/18/2020					452
9/21/2020	272			956	
9/28/2020		<10	176		
11/11/2020					468
11/12/2020				694	
12/16/2020				816	536
1/20/2021				726	472
3/12/2021	584			664	474
3/15/2021		614	340		
8/16/2021	632	626	352		
8/19/2021				732	488
2/2/2022	612	638	347		
2/3/2022				726	466
8/4/2022	632	640	334	706	510

FIGURE B.

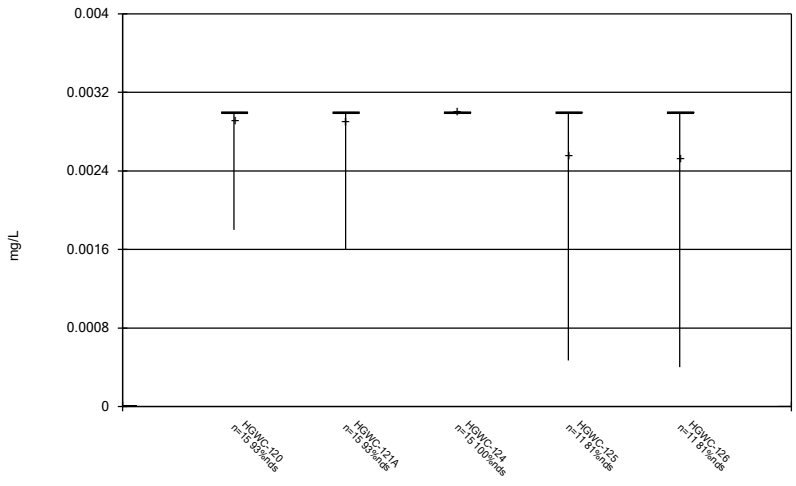
Box & Whiskers Plot



Constituent: Antimony Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

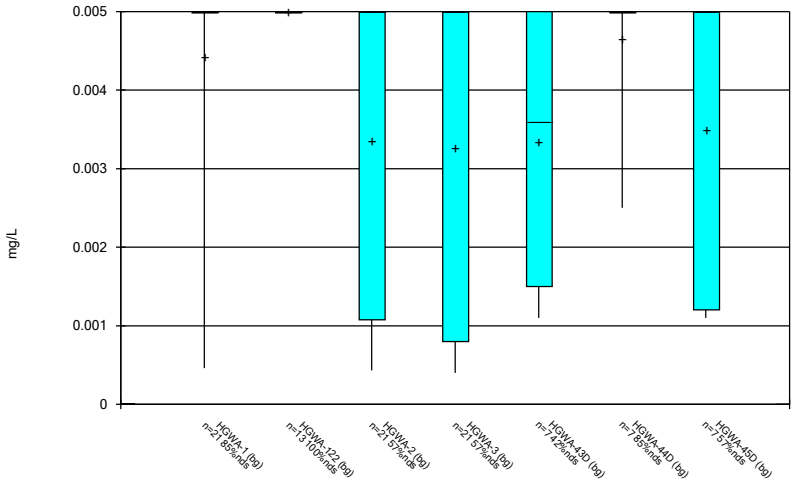
Box & Whiskers Plot



Constituent: Antimony Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

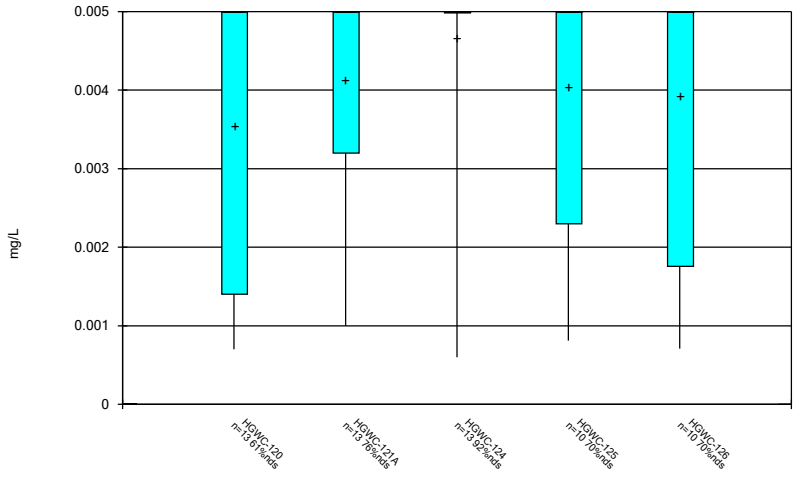
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

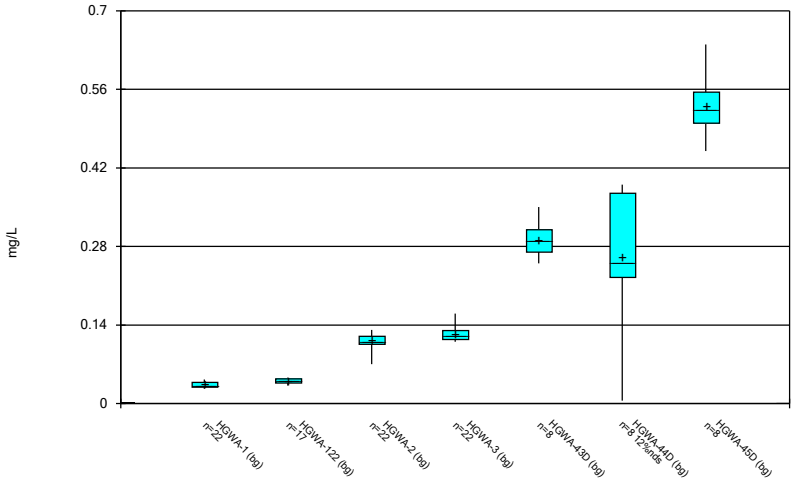
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Arsenic Analysis Run 10/27/2022 5:09 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

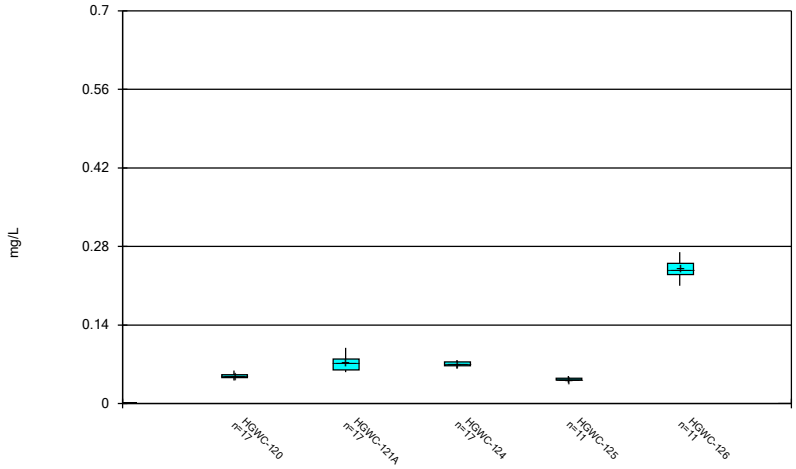
Box & Whiskers Plot



Constituent: Barium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

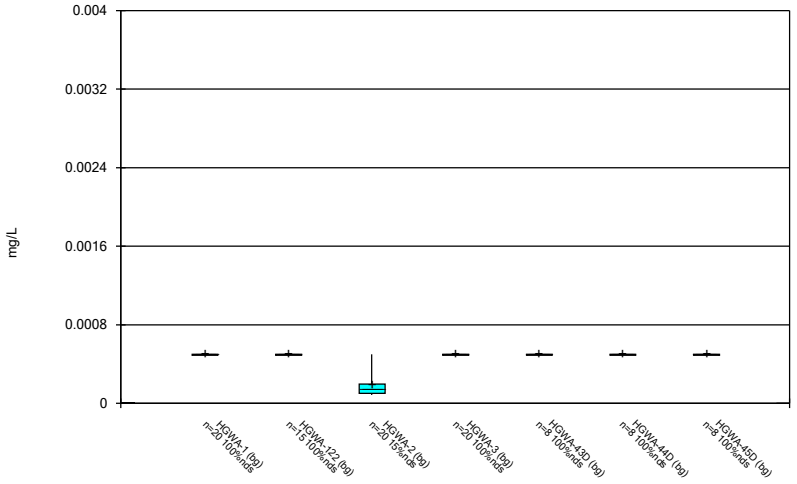
Box & Whiskers Plot



Constituent: Barium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

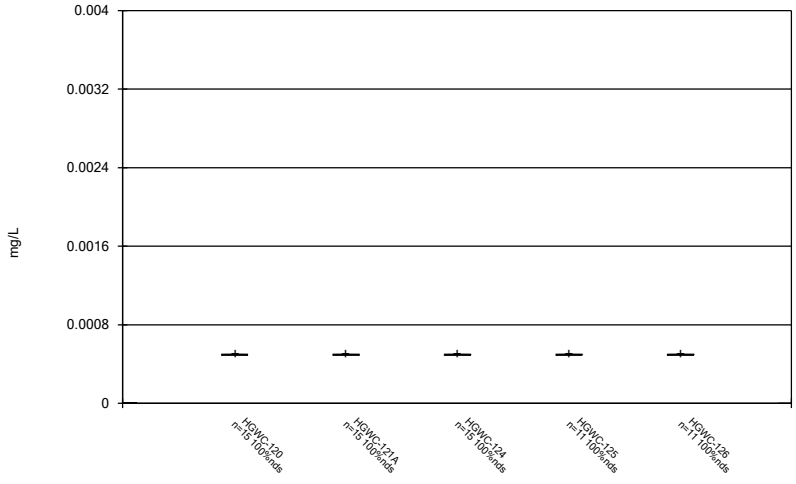
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

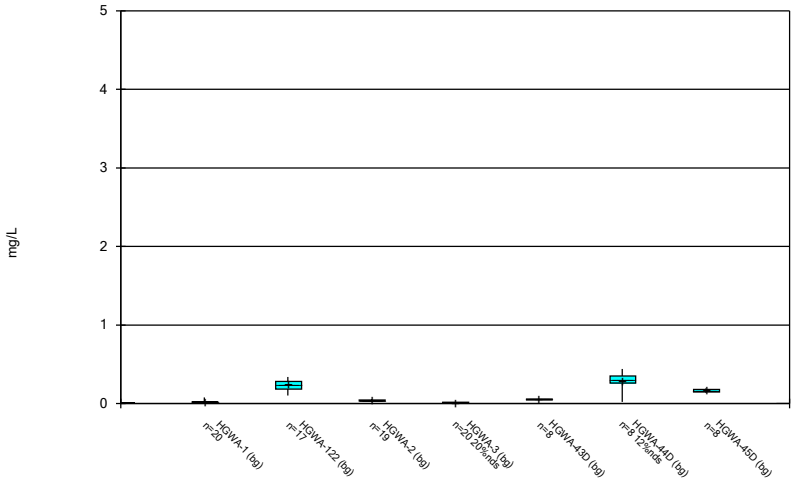
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Beryllium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

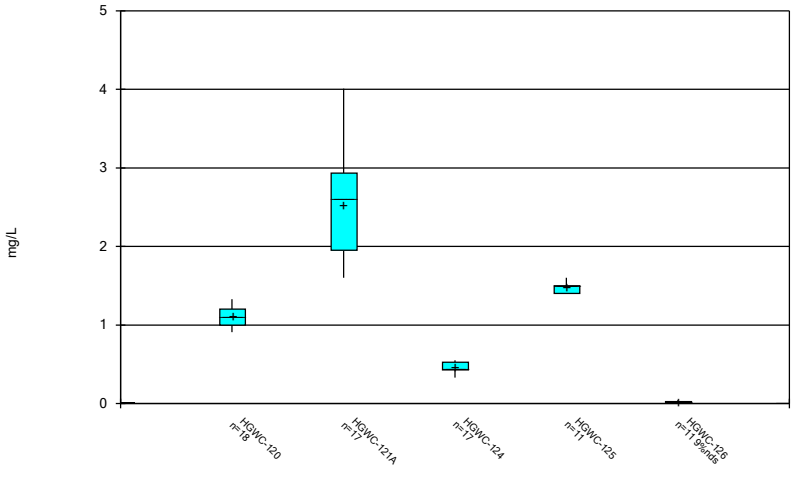
Box & Whiskers Plot



Constituent: Boron Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

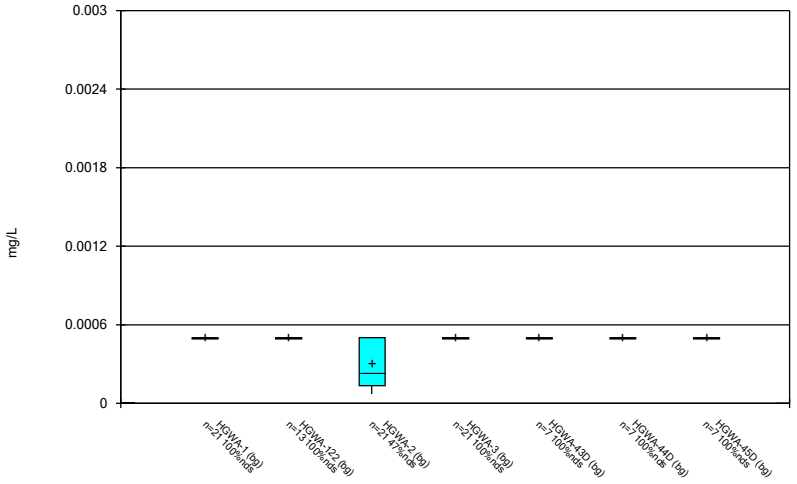
Box & Whiskers Plot



Constituent: Boron Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

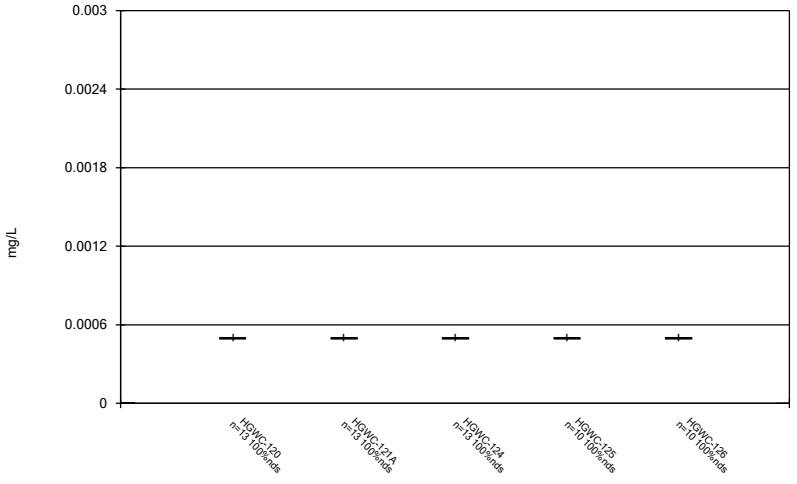
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

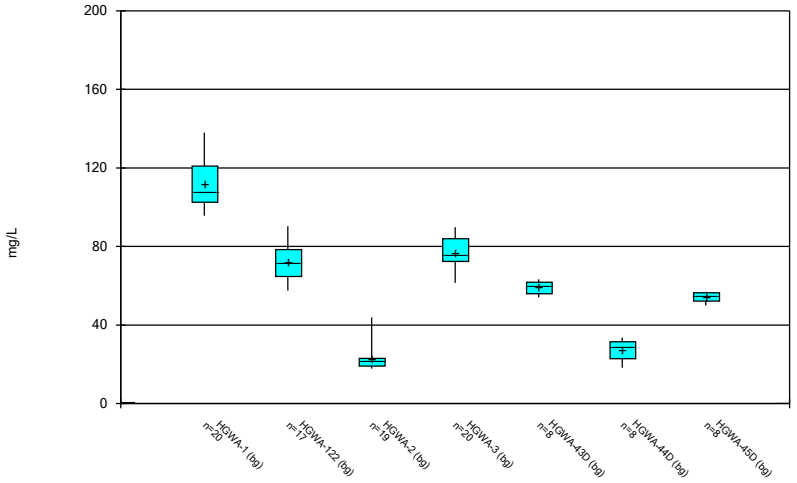
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Cadmium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

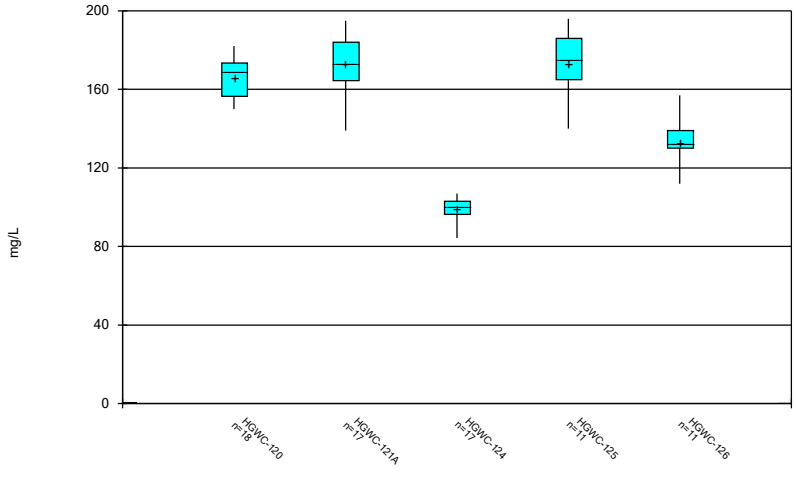
Box & Whiskers Plot



Constituent: Calcium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

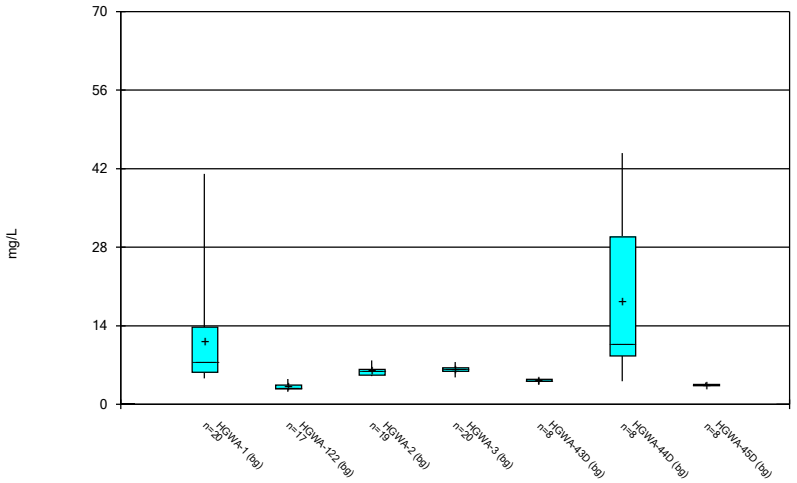
Box & Whiskers Plot



Constituent: Calcium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

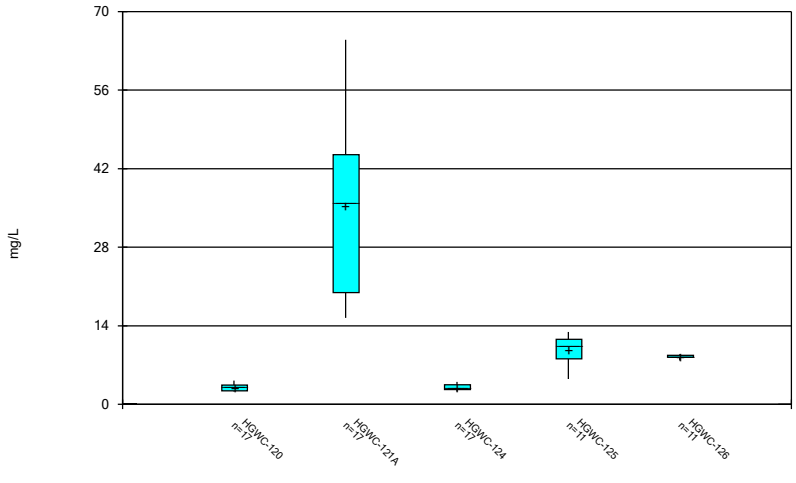
Box & Whiskers Plot



Constituent: Chloride Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

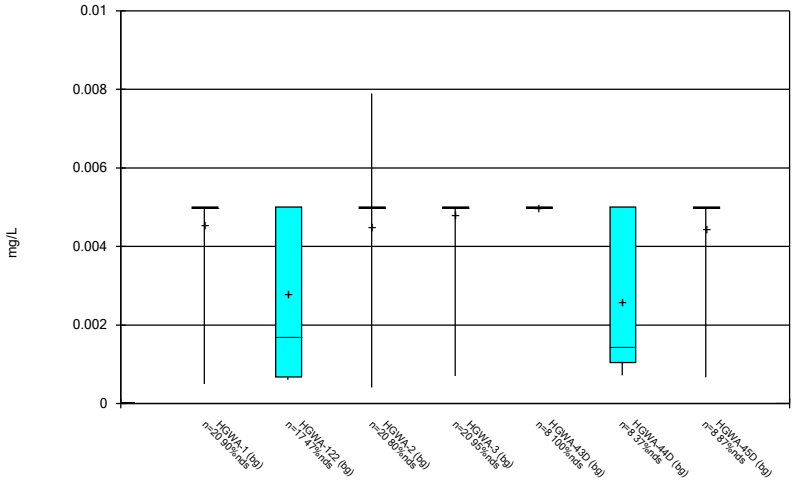
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Chloride Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

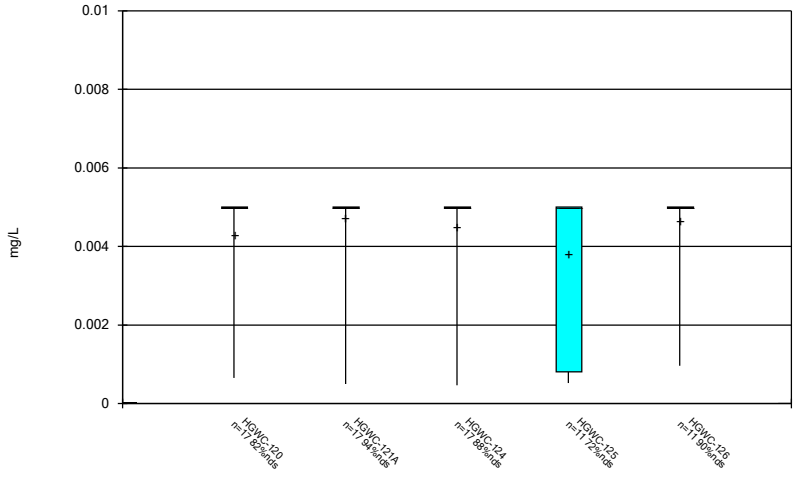
Box & Whiskers Plot



Constituent: Chromium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

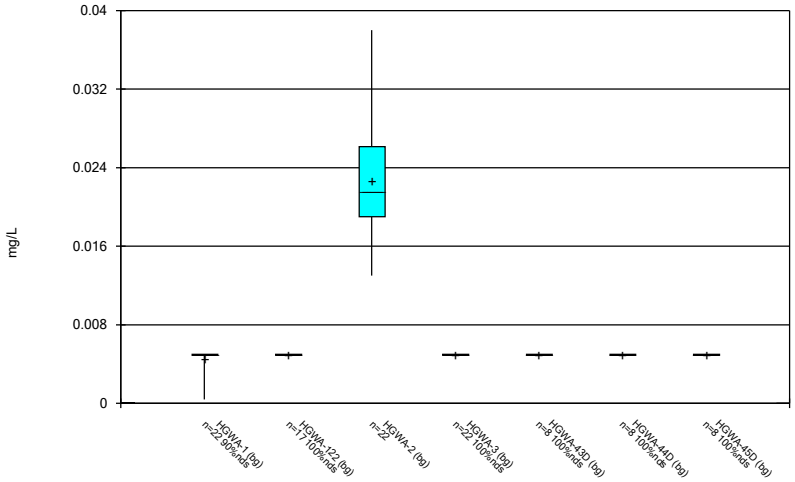
Box & Whiskers Plot



Constituent: Chromium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

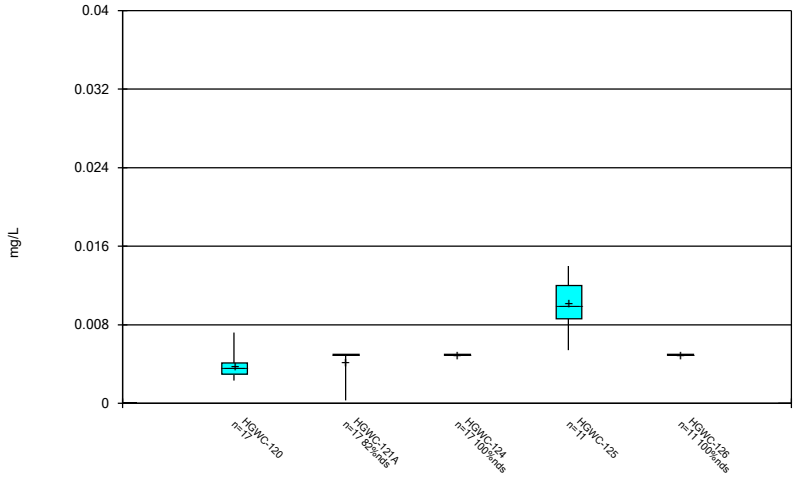
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

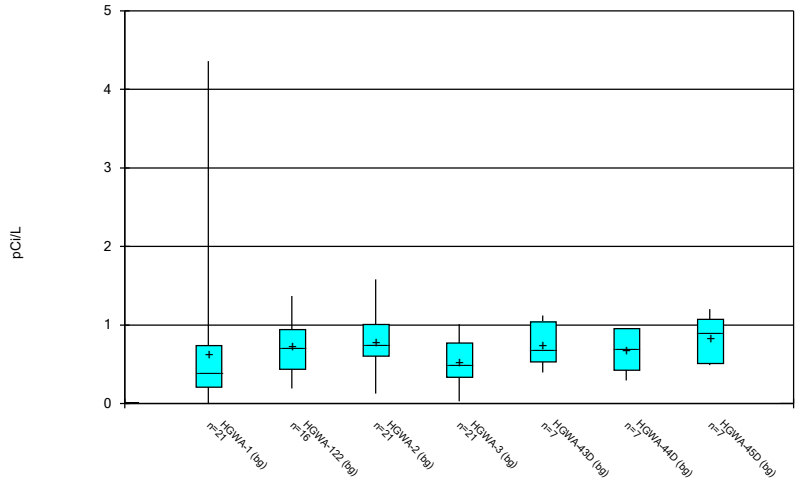
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Cobalt Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

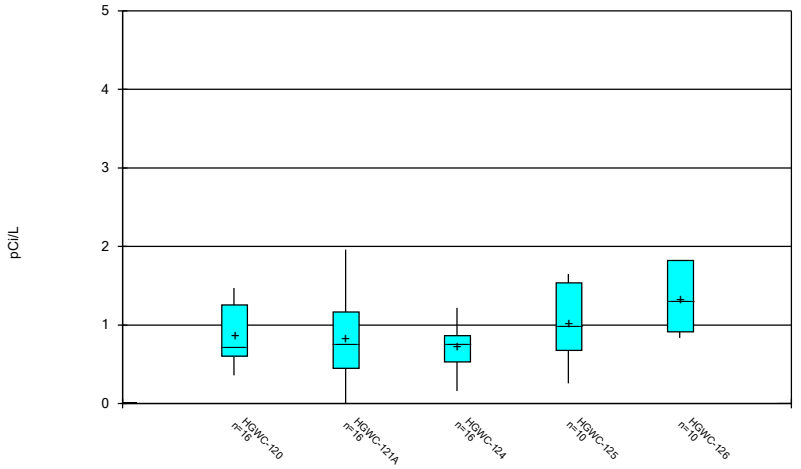
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plo
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

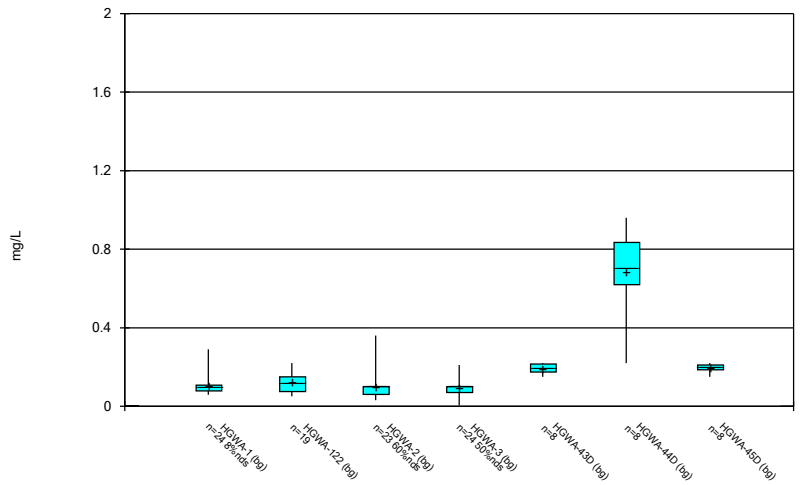
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plo
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

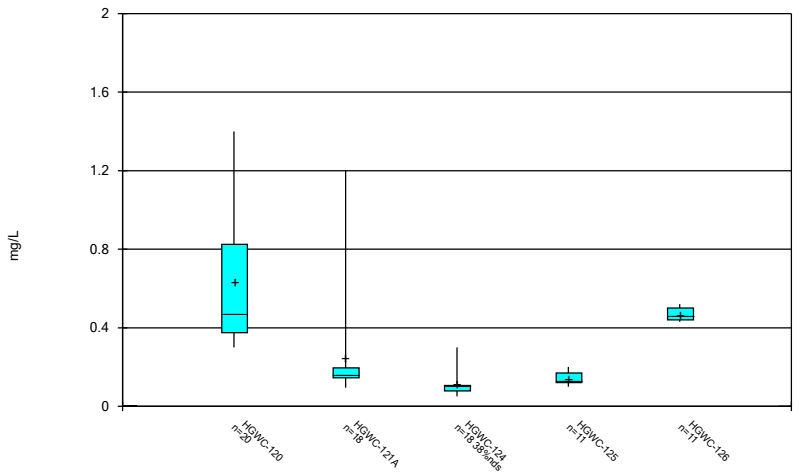
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

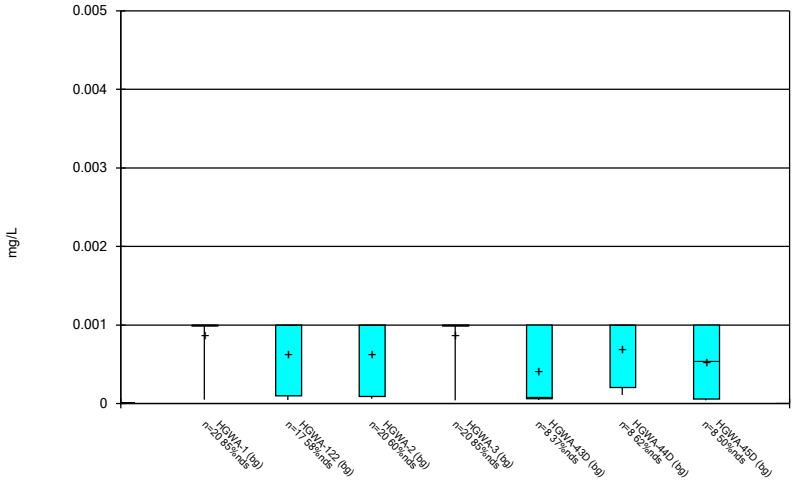
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

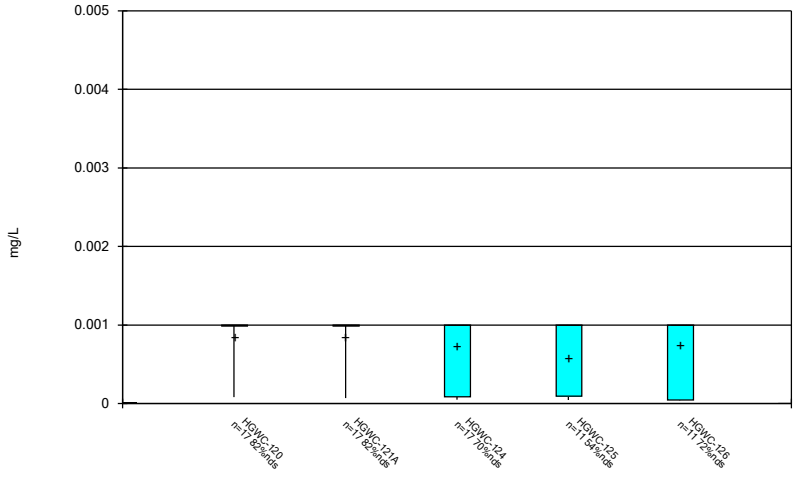
Box & Whiskers Plot



Constituent: Lead Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

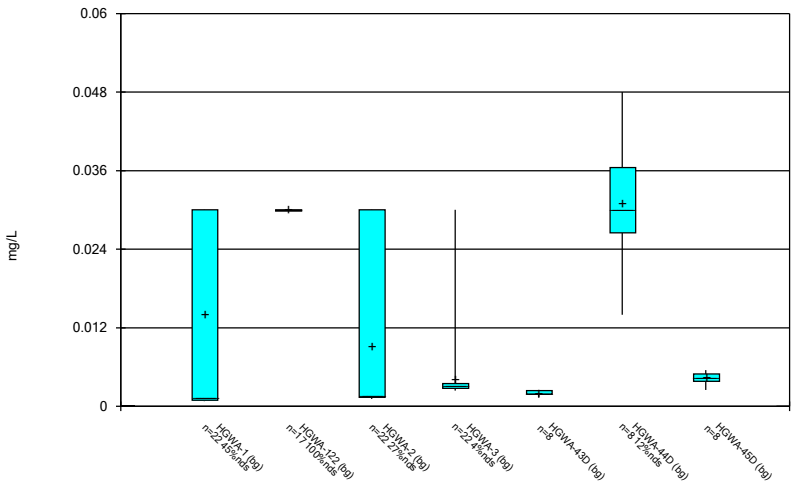
Box & Whiskers Plot



Constituent: Lead Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

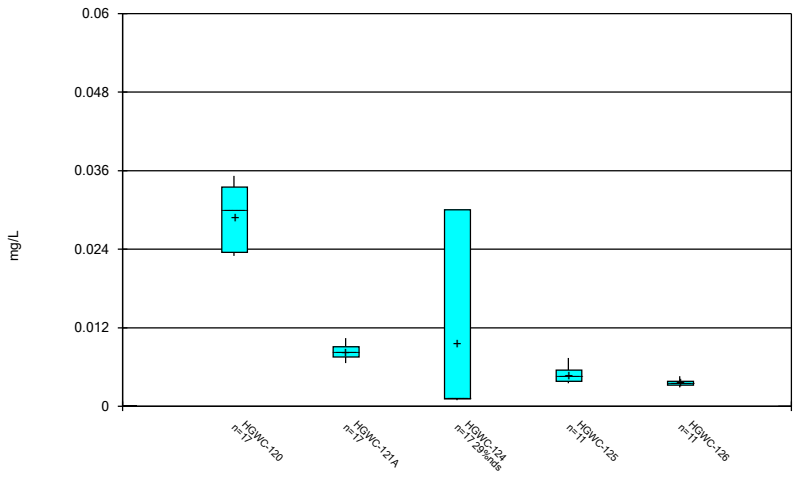
Box & Whiskers Plot



Constituent: Lithium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

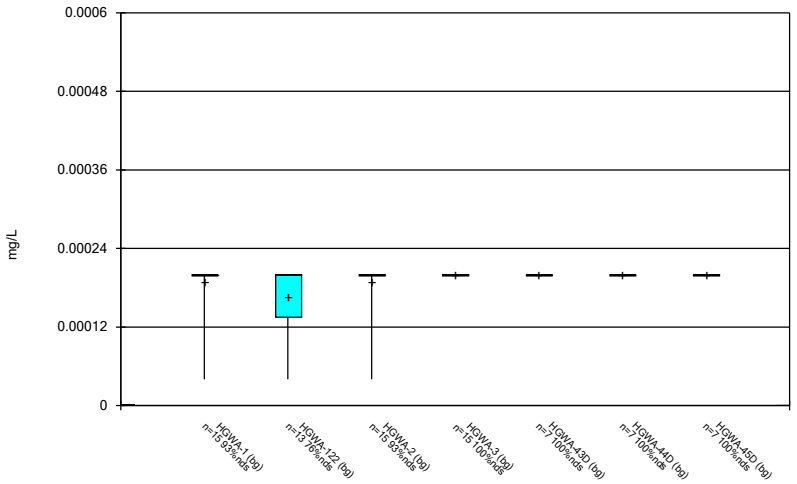
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Lithium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

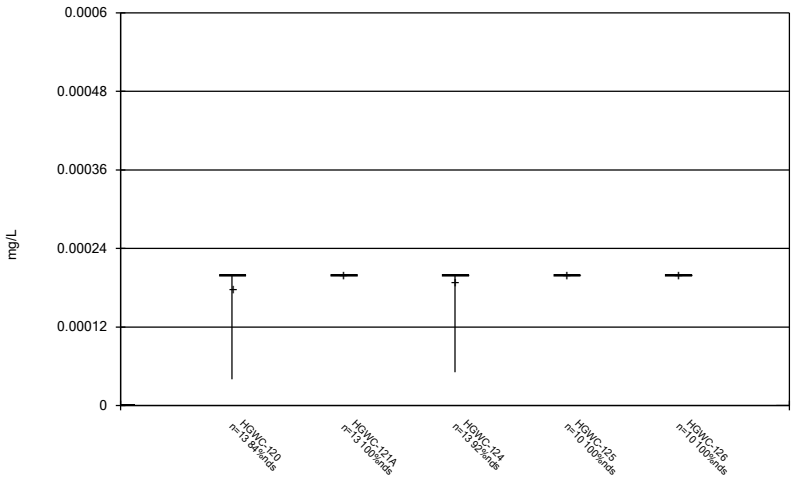
Box & Whiskers Plot



Constituent: Mercury Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

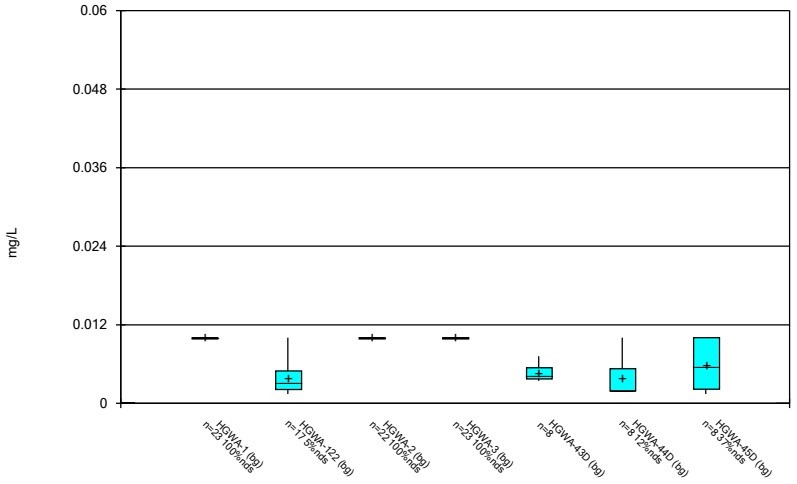
Box & Whiskers Plot



Constituent: Mercury Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

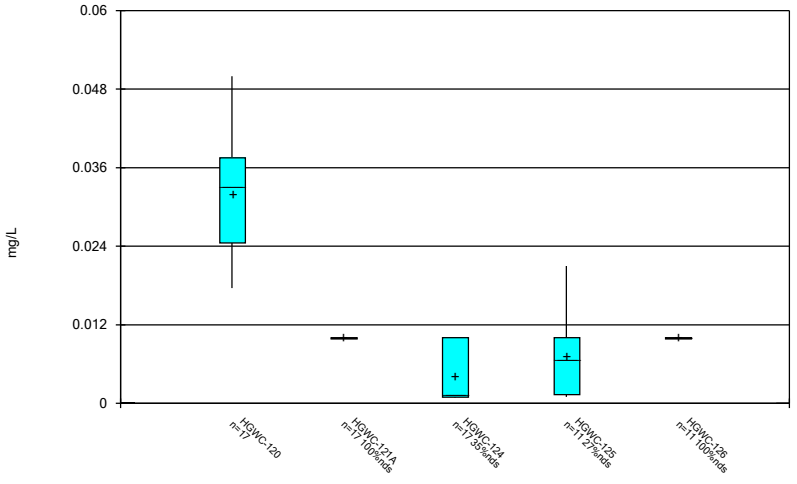
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



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Plant Hammond Client: Southern Company Data: Hammond AP-3

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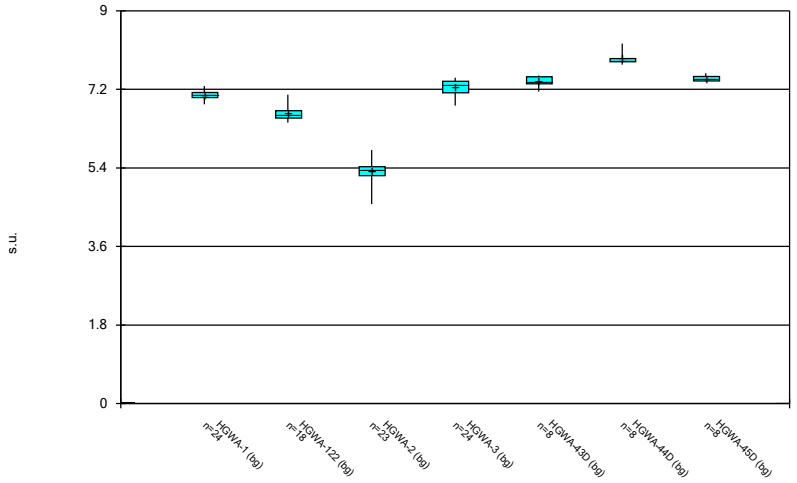
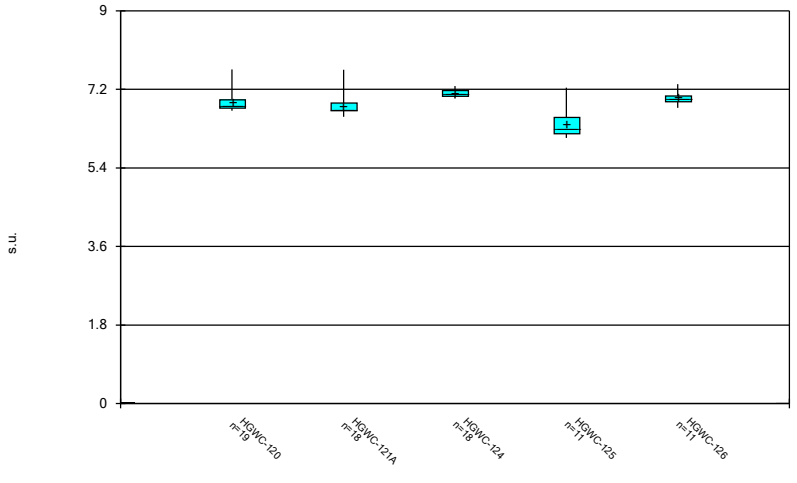


Constituent: pH Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



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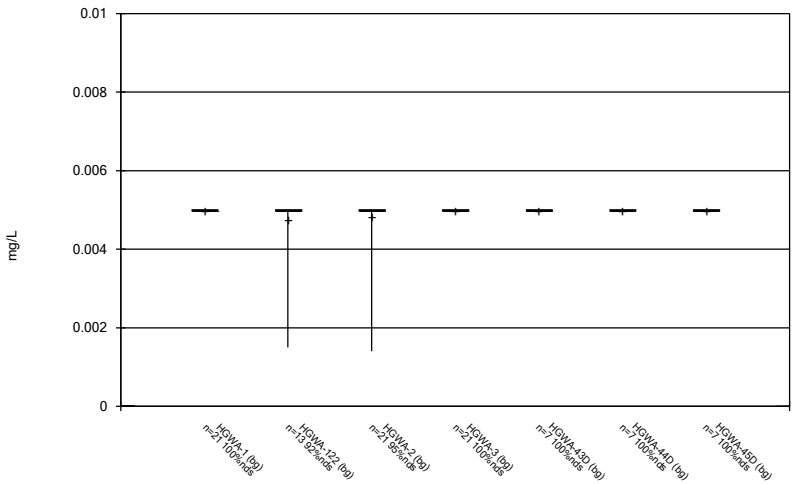
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

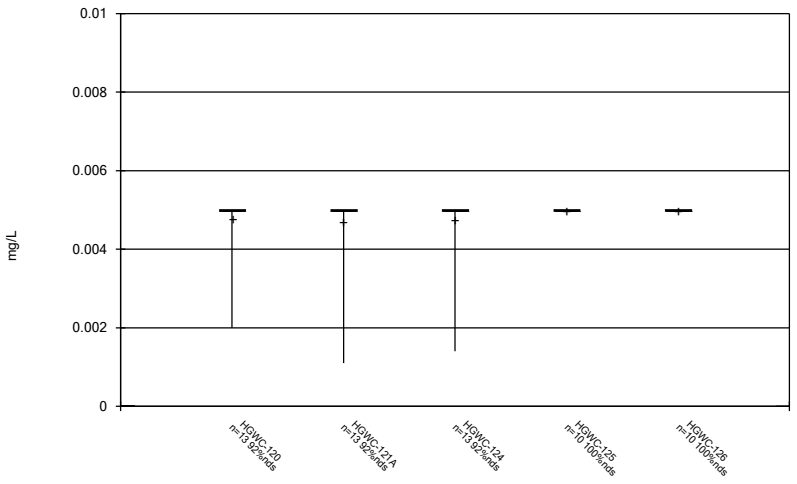
Box & Whiskers Plot



Constituent: Selenium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

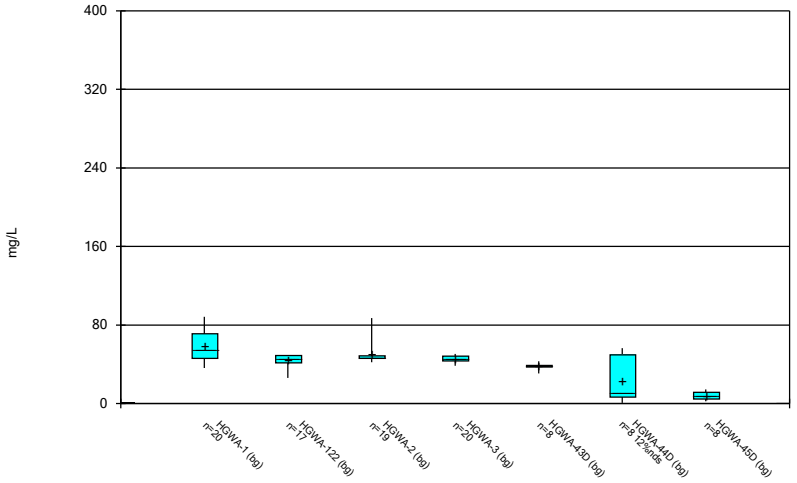
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Selenium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

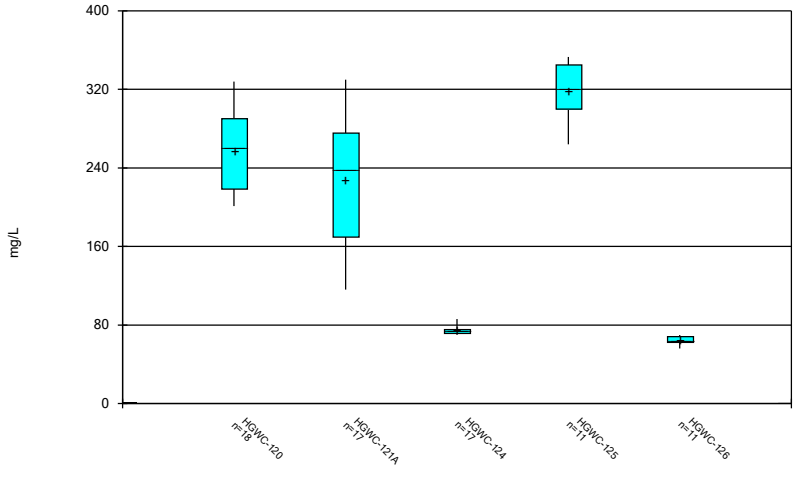
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

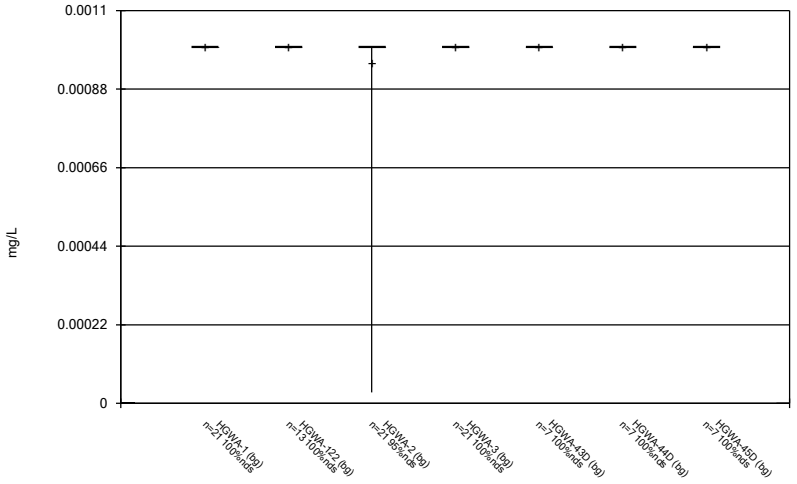
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

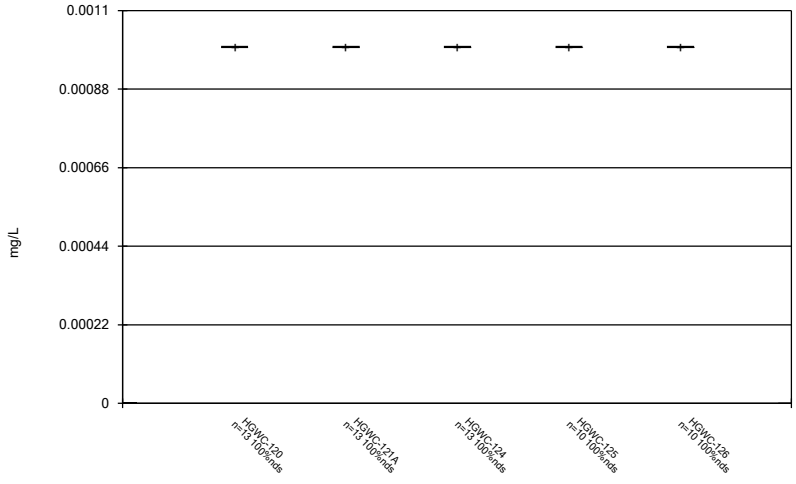
Box & Whiskers Plot



Constituent: Thallium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

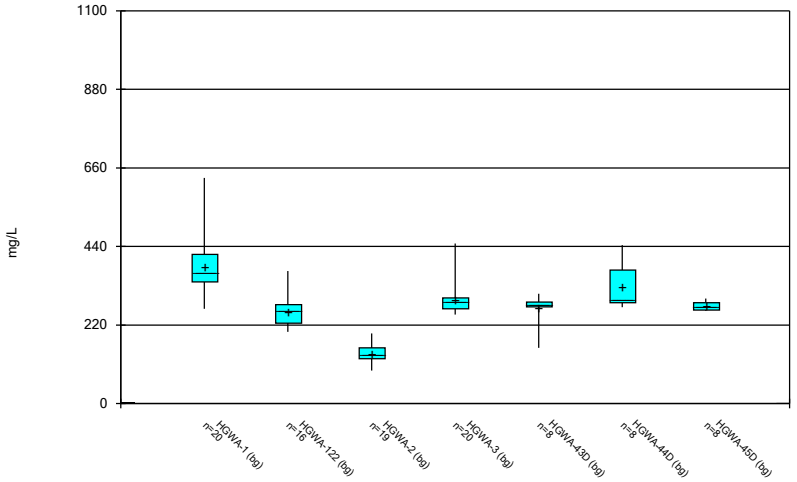
Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

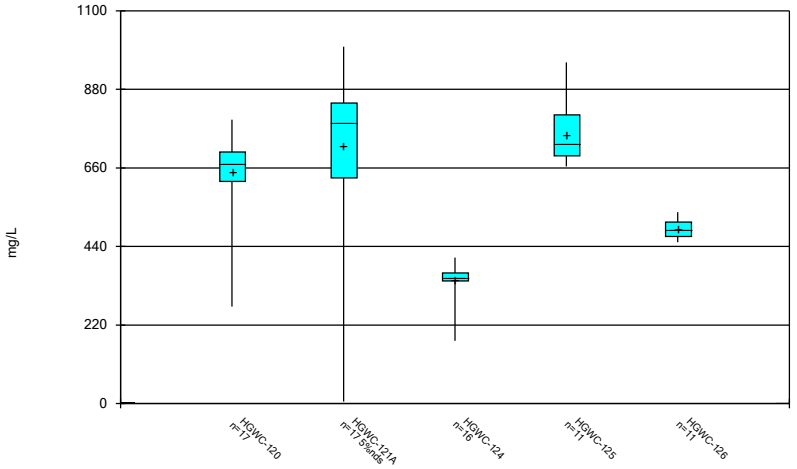
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 10/27/2022 5:10 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

FIGURE C.

Outlier Summary

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 7:09 PM

	HGWA-122 Total Dissolved Solids (mg/L)
4/2/2019	814 (o)

FIGURE D.

Interwell Prediction Limit - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 6:56 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-120**	**0.44**	**n/a**	**8/4/2022**	**1**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-121A**	**0.44**	**n/a**	**8/4/2022**	**1.8**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-125**	**0.44**	**n/a**	**8/4/2022**	**1.4**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-120**	**138**	**n/a**	**8/4/2022**	**173**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-121A**	**138**	**n/a**	**8/4/2022**	**160**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-125**	**138**	**n/a**	**8/4/2022**	**170**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-126**	**138**	**n/a**	**8/4/2022**	**141**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-120**	**88.2**	**n/a**	**8/4/2022**	**230**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-121A**	**88.2**	**n/a**	**8/4/2022**	**162**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-125**	**88.2**	**n/a**	**8/4/2022**	**331**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-121A**	**632**	**n/a**	**8/4/2022**	**640**	**Yes**	**99**	**0**	**n/a**	**n/a**	**0.0001978**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-125**	**632**	**n/a**	**8/4/2022**	**706**	**Yes**	**99**	**0**	**n/a**	**n/a**	**0.0001978**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limit - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 6:56 PM

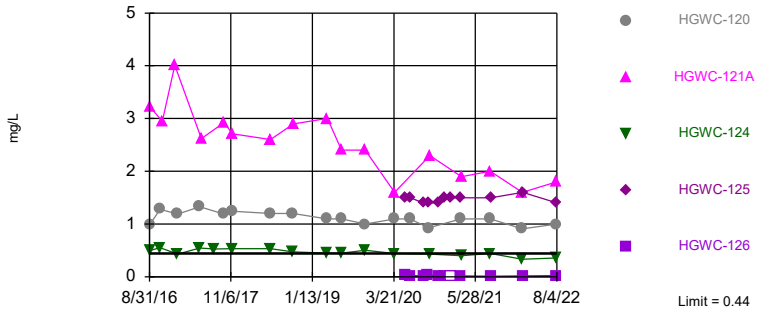
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-120**	**0.44**	**n/a**	**8/4/2022**	**1**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-121A**	**0.44**	**n/a**	**8/4/2022**	**1.8**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	HGWC-124	0.44	n/a	8/4/2022	0.36	No	100	5	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Boron (mg/L)	**HGWC-125**	**0.44**	**n/a**	**8/4/2022**	**1.4**	**Yes**	**100**	**5**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	HGWC-126	0.44	n/a	8/4/2022	0.023J	No	100	5	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Calcium (mg/L)	**HGWC-120**	**138**	**n/a**	**8/4/2022**	**173**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-121A**	**138**	**n/a**	**8/4/2022**	**160**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	HGWC-124	138	n/a	8/4/2022	103	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Calcium (mg/L)	**HGWC-125**	**138**	**n/a**	**8/4/2022**	**170**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-126**	**138**	**n/a**	**8/4/2022**	**141**	**Yes**	**100**	**0**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	HGWC-120	44.8	n/a	8/4/2022	2.7	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-121A	44.8	n/a	8/4/2022	15.4	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-124	44.8	n/a	8/4/2022	2.6	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-125	44.8	n/a	8/4/2022	11.6	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-126	44.8	n/a	8/4/2022	8.7	No	100	0	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-120	0.96	n/a	8/4/2022	0.38	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-121A	0.96	n/a	8/4/2022	0.18	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-124	0.96	n/a	8/4/2022	0.074J	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-125	0.96	n/a	8/4/2022	0.15	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-126	0.96	n/a	8/4/2022	0.5	No	114	24.56	n/a	n/a	0.0001526	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-120	8.25	4.57	8/4/2022	6.93	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-121A	8.25	4.57	8/4/2022	6.8	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-124	8.25	4.57	8/4/2022	7.15	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-125	8.25	4.57	8/4/2022	6.09	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-126	8.25	4.57	8/4/2022	6.99	No	113	0	n/a	n/a	0.000311	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-120**	**88.2**	**n/a**	**8/4/2022**	**230**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-121A**	**88.2**	**n/a**	**8/4/2022**	**162**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	HGWC-124	88.2	n/a	8/4/2022	73.1	No	100	1	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-125**	**88.2**	**n/a**	**8/4/2022**	**331**	**Yes**	**100**	**1**	**n/a**	**n/a**	**0.0001934**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	HGWC-126	88.2	n/a	8/4/2022	68.3	No	100	1	n/a	n/a	0.0001934	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-120	632	n/a	8/4/2022	632	No	99	0	n/a	n/a	0.0001978	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**HGWC-121A**	**632**	**n/a**	**8/4/2022**	**640**	**Yes**	**99**	**0**	**n/a**	**n/a**	**0.0001978**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	HGWC-124	632	n/a	8/4/2022	334	No	99	0	n/a	n/a	0.0001978	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**HGWC-125**	**632**	**n/a**	**8/4/2022**	**706**	**Yes**	**99**	**0**	**n/a**	**n/a**	**0.0001978**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	HGWC-126	632	n/a	8/4/2022	510	No	99	0	n/a	n/a	0.0001978	NP Inter (normality) 1 of 2

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: HGWC-120, HGWC-121A, HGWC-125

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 100 background values. 5% NDs. Annual per-constituent alpha = 0.001932. Individual comparison alpha = 0.0001934 (1 of 2). Comparing 5 points to limit.

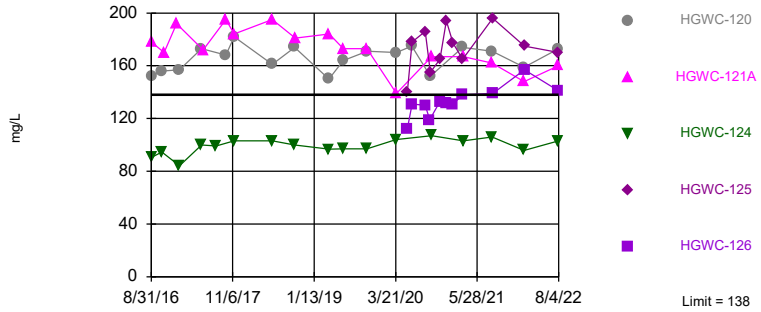
Constituent: Boron Analysis Run 10/20/2022 6:55 PM View: A3 PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: HGWC-120, HGWC-121A, HGWC-125, HGWC-126

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 100 background values. Annual per-constituent alpha = 0.001932. Individual comparison alpha = 0.0001934 (1 of 2). Comparing 5 points to limit.

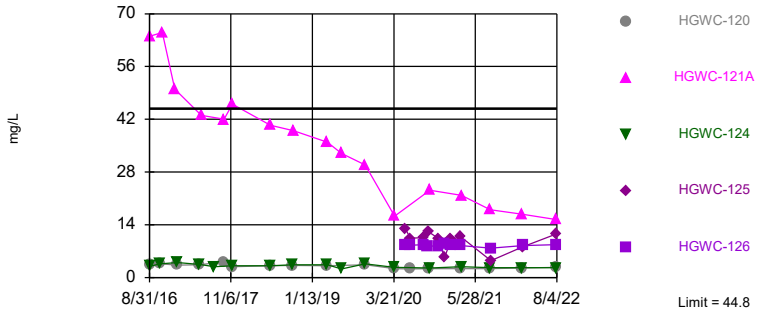
Constituent: Calcium Analysis Run 10/20/2022 6:55 PM View: A3 PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

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 100 background values. Annual per-constituent alpha = 0.001932. Individual comparison alpha = 0.0001934 (1 of 2). Comparing 5 points to limit.

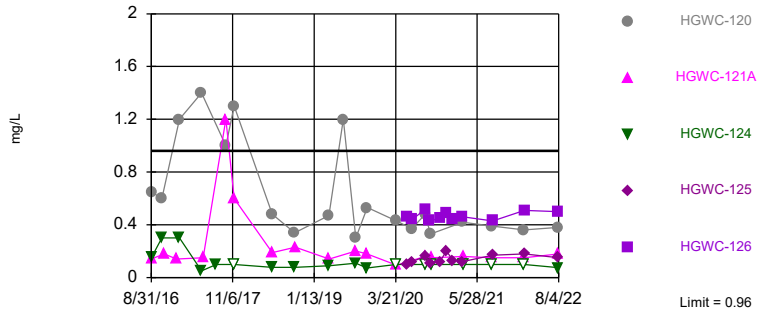
Constituent: Chloride Analysis Run 10/20/2022 6:55 PM View: A3 PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



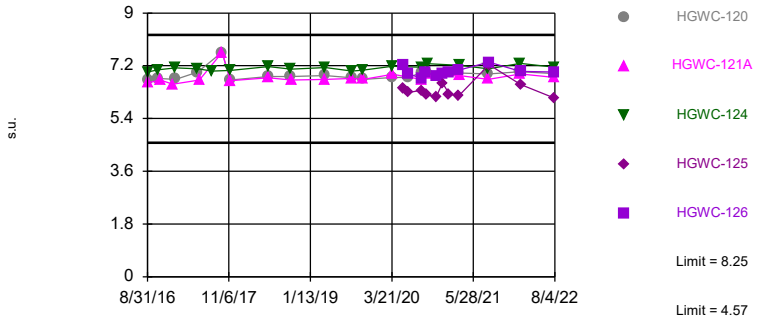
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 114 background values. 24.56% NDs. Annual per-constituent alpha = 0.001525. Individual comparison alpha = 0.0001526 (1 of 2). Comparing 5 points to limit.

Constituent: Fluoride Analysis Run 10/20/2022 6:55 PM View: A3 PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Within Limits

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 113 background values. Annual per-constituent alpha = 0.003107. Individual comparison alpha = 0.000311 (1 of 2). Comparing 5 points to limit.

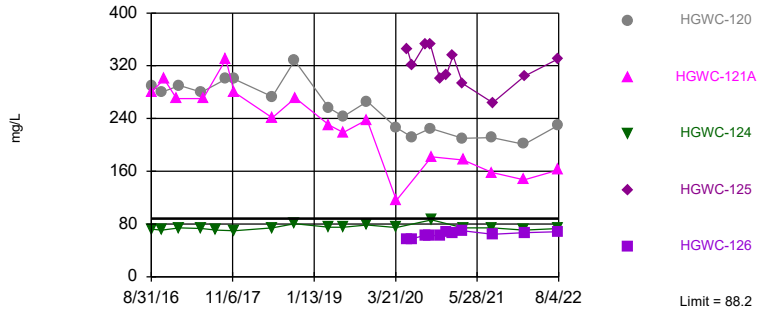
Constituent: pH Analysis Run 10/20/2022 6:55 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Exceeds Limit: HGWC-120, HGWC-121A, HGWC-125

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 100 background values. 1% NDs. Annual per-constituent alpha = 0.001932. Individual comparison alpha = 0.0001934 (1 of 2). Comparing 5 points to limit.

Constituent: Sulfate Analysis Run 10/20/2022 6:55 PM View: A3 PL

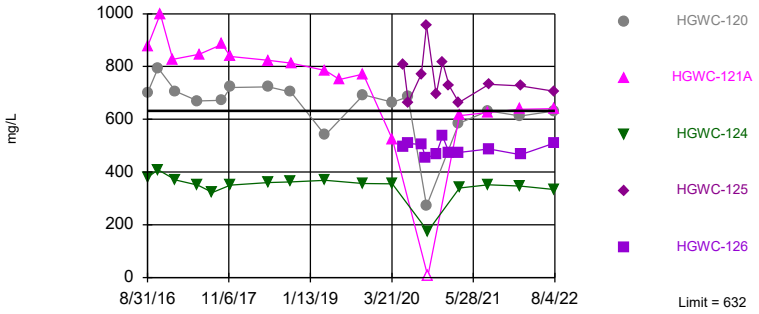
Plant Hammond Client: Southern Company Data: Hammond AP-3

Hollow symbols indicate censored values.

Exceeds Limit: HGWC-121A, HGWC-125

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 99 background values. Annual per-constituent alpha = 0.001976. Individual comparison alpha = 0.0001978 (1 of 2). Comparing 5 points to limit.

Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:55 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-126	HGWC-125
5/19/2016	0.0214 (J)	<0.04	0.0321 (J)						
7/11/2016	0.0142 (J)		0.0337 (J)						
7/12/2016		0.0074 (J)							
8/30/2016	0.0074 (J)	<0.04	0.0173 (J)	0.277					
8/31/2016					3.23	0.981	0.494		
10/19/2016	0.0224 (J)	0.0085 (J)	0.0341 (J)						
10/20/2016				0.336					
10/26/2016						1.28	0.55		
11/7/2016					2.95				
12/6/2016	0.0211 (J)	0.0085 (J)	0.0326 (J)						
1/13/2017					4.01				
1/24/2017	0.0165 (J)	0.01 (J)	0.0365 (J)						
1/25/2017				0.274					
1/27/2017						1.19	0.428		
3/21/2017	0.0187 (J)	0.0079 (J)	0.0349 (J)						
5/22/2017	0.0782	0.0131 (J)	0.0475						
5/25/2017				0.298		1.33	0.544		
6/3/2017					2.62				
8/11/2017				0.285			0.524		
10/2/2017					2.92	1.19			
10/3/2017	0.0198 (J)	0.0097 (J)	0.0386 (J)						
11/15/2017				0.322	2.71	1.24	0.531		
6/4/2018	0.02 (J)	0.017 (J)	0.036 (J)						
6/5/2018				0.24	2.6	1.2	0.53		
10/1/2018	0.013 (J)	0.0061 (J)	0.035 (J)						
10/2/2018				0.28		1.2	0.47		
10/5/2018					2.9				
4/1/2019		0.0066 (J)							
4/2/2019	0.016 (J)		0.034 (J)	0.18		1.1			
4/3/2019					3		0.45		
6/17/2019					2.4	1.1			
6/18/2019				0.25			0.45		
9/23/2019	0.021 (J)	0.0081 (J)	0.04 (J)						
10/21/2019				0.25	2.4		0.5		
10/22/2019						1			
3/24/2020				0.1			0.44		
3/25/2020	0.025 (J)	0.0096 (J)	0.039 (J)		1.6	1.1			
5/22/2020								0.026 (J)	1.5
6/15/2020						1.1			
6/16/2020	0.021 (J)	0.01 (J)						0.023 (J)	1.5
8/25/2020								0.016 (J)	1.4
9/15/2020	0.017 (J)	0.0071 (J)	0.044 (J)	0.22					
9/16/2020									
9/18/2020								0.041 (J)	
9/21/2020						0.93			1.4
9/25/2020									
9/28/2020					2.3		0.43		
11/10/2020									
11/11/2020								0.009 (J)	
11/12/2020									1.4
12/15/2020									
12/16/2020								0.011 (J)	1.5

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-126	HGWC-125
1/19/2021									
1/20/2021								<0.04	1.5
3/10/2021	0.015 (J)								
3/11/2021		0.015 (J)	0.056	0.2					
3/12/2021						1.1		0.016 (J)	1.5
3/15/2021					1.9		0.4		
8/11/2021	0.02 (J)								
8/12/2021		<0.04	0.044						
8/13/2021				0.19					
8/16/2021					2	1.1	0.44		
8/19/2021								0.011 (J)	1.5
2/1/2022	0.016 (J)	0.011 (J)	0.056	0.17					
2/2/2022					1.6	0.91	0.33		
2/3/2022								0.016 (J)	1.6
8/2/2022	0.012 (J)	<0.04	0.047	0.18					
8/4/2022					1.8	1	0.36	0.023 (J)	1.4

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	0.23	0.061 (J)	
9/18/2020			
9/21/2020			
9/25/2020			0.16
9/28/2020			
11/10/2020	0.29	0.057 (J)	
11/11/2020			0.17
11/12/2020			
12/15/2020	0.31	0.052 (J)	
12/16/2020			0.16

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
1/19/2021	<0.04	0.049 (J)	
1/20/2021			0.19
3/10/2021	0.39		
3/11/2021		0.06	
3/12/2021			0.19
3/15/2021			
8/11/2021		0.042	
8/12/2021			
8/13/2021	0.31		0.15
8/16/2021			
8/19/2021			
2/1/2022	0.44	0.05	0.14
2/2/2022			
2/3/2022			
8/2/2022	0.31	0.043	0.14
8/4/2022			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-126	HGWC-125
5/19/2016	138	76.2	22.9						
7/11/2016	97.2		22.3						
7/12/2016		61.5							
8/30/2016	97.5	65.1	26.4	71.3					
8/31/2016					178	152	90.4		
10/19/2016	99.2	73.2	21.7						
10/20/2016				90.3					
10/26/2016						156	94.5		
11/7/2016					170				
12/6/2016	105	74.9	18.2						
1/13/2017					192				
1/24/2017	95.7	69.6	18.5						
1/25/2017				77.3					
1/27/2017						157	84.2		
3/21/2017	106	75.7	18.6						
5/22/2017	107	71.5	17.8						
5/25/2017				69.9		173	100		
6/3/2017					172				
8/11/2017				79.5			99.1		
10/2/2017					195	168			
10/3/2017	102	76.3	20.2						
11/15/2017				72.8	184	182	103		
6/4/2018	124	73.4	19.1						
6/5/2018				71.4	195	161	103		
10/1/2018	108	80.9	20.5 (J)						
10/2/2018				66.6		174	100		
10/5/2018					181				
4/1/2019		80.5							
4/2/2019	132		22.5 (J)	60.9		150			
4/3/2019					184		96.7		
6/17/2019					173	164			
6/18/2019				75			97.1		
9/23/2019	118	71	19.5						
10/21/2019				80.8	173		96.9		
10/22/2019						171			
3/24/2020				81.2			104		
3/25/2020	127	89.8	23		139	170			
5/22/2020								112	140
6/15/2020						175			
6/16/2020	130	85.1						131	178
8/25/2020								130	186
9/15/2020	103	73.1	21.1	75.8					
9/16/2020									
9/18/2020								119	
9/21/2020						152			155
9/25/2020									
9/28/2020					167		107		
11/10/2020									
11/11/2020								133	
11/12/2020									165
12/15/2020									
12/16/2020								132	194

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-126	HGWC-125
1/19/2021									
1/20/2021								131	177 (M1)
3/10/2021	111								
3/11/2021		83.8	43.8	60.4 (M1)					
3/12/2021						174		138	165
3/15/2021					167		103		
8/11/2021	113								
8/12/2021		84	21.9						
8/13/2021				62.9					
8/16/2021					162	171	106		
8/19/2021								139	196
2/1/2022	106	85.1	27.2	57.5					
2/2/2022					148	159	95.9		
2/3/2022								157	175
8/2/2022	117	84.6	31.2	69.5					
8/4/2022					160	173	103	141	170

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	30	56	
9/18/2020			
9/21/2020			
9/25/2020			56.8
9/28/2020			
11/10/2020	33.6	63.3	
11/11/2020			54.9
11/12/2020			
12/15/2020	28.7	62.6	
12/16/2020			56.4

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
1/19/2021	33	60.1	
1/20/2021			55
3/10/2021	18.3		
3/11/2021		59.6	
3/12/2021			56.5
3/15/2021			
8/11/2021		61	
8/12/2021			
8/13/2021	28.9		53
8/16/2021			
8/19/2021			
2/1/2022	24.8	55.9	51.3
2/2/2022			
2/3/2022			
8/2/2022	20.9	54.1	49.9
8/4/2022			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-126	HGWC-125
5/19/2016	9.94	5.93	6.14						
7/11/2016	6.3		5.9						
7/12/2016		6.2							
8/30/2016	6	6.4	6.2	2.8					
8/31/2016					64	3.5	3		
10/19/2016	5.8	6.5	6.1						
10/20/2016				2.8					
10/26/2016						3.6	3.6		
11/7/2016					65				
12/6/2016	5.4	7.2	6						
1/13/2017					50				
1/24/2017	5.2	6.4	6.1						
1/25/2017				2.8					
1/27/2017						3.3	4		
3/21/2017	4.6	7.5	5.9						
5/22/2017	4.6	6.5	5.9						
5/25/2017				2.9		3.4	3.5		
6/3/2017					43				
8/11/2017				3			2.9		
10/2/2017					42	4.2			
10/3/2017	5.6	6.5	6.3						
11/15/2017				3.1	46	2.9	3.1		
6/4/2018	13.1	6.3	6.1						
6/5/2018				3	40.4	3.1	3.1		
10/1/2018	6.6	6.4	6.4						
10/2/2018				3.1		3.2	3.4		
10/5/2018					39				
4/1/2019		6.5							
4/2/2019	20.3		5.8	3.6		3.1			
4/3/2019					35.9		3.4		
6/17/2019					32.9				
6/18/2019				3.2			2.3 (J)		
9/23/2019	17.7	5.9	5.1						
10/21/2019				4.5	29.9		3.6		
10/22/2019						3.4			
3/24/2020				4.5			2.7		
3/25/2020	20.4	6.1	5.2		16.3	2.4			
5/22/2020								8.6	12.9
6/15/2020						2.3			
6/16/2020	41.1	5.8						8.6	10.4
8/25/2020								8.7	10.6
9/15/2020	13.4	6	5	3.6					
9/16/2020									
9/18/2020								8.4	
9/21/2020						2.4			12.1
9/25/2020									
9/28/2020					23.2		2.5		
11/10/2020									
11/11/2020								8.3	
11/12/2020									10.4
12/15/2020									
12/16/2020								8.9	5.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-126	HGWC-125
1/19/2021									
1/20/2021								8.5	10.2
3/10/2021	7.4								
3/11/2021		5.9	5.1	2.3					
3/12/2021						2.4		8.5	10.8
3/15/2021					21.8		2.9		
8/11/2021	9.6								
8/12/2021		4.8	5.2						
8/13/2021				2.6					
8/16/2021					18	2.4	2.6		
8/19/2021								7.8	4.5
2/1/2022	7.5	5.7	7	2.2					
2/2/2022					16.8	2.5	2.6		
2/3/2022								8.5	8.1
8/2/2022	14.1	5.9	7.8	2.7					
8/4/2022					15.4	2.7	2.6	8.7	11.6

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	4.1	4.1	
9/18/2020			
9/21/2020			
9/25/2020			3.6
9/28/2020			
11/10/2020	4.4	7.8	
11/11/2020			3.3
11/12/2020			
12/15/2020	4.7	9.4	
12/16/2020			3.4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
1/19/2021	4.1	9.5	
1/20/2021			3.5
3/10/2021		12.3	
3/11/2021	4.5		
3/12/2021			3.3
3/15/2021			
8/11/2021	3.5		
8/12/2021			
8/13/2021		39.9	3.3
8/16/2021			
8/19/2021			
2/1/2022	4.1	44.8	3.5
2/2/2022			
2/3/2022			
8/2/2022	4.3	19.8	3.9
8/4/2022			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-124	HGWC-121A	HGWC-125	HGWC-126
5/19/2016	0.105 (J)	0.0513 (J)	0.0303 (J)						
7/11/2016	0.16 (J)		0.05 (J)						
7/12/2016		0.12 (J)							
8/30/2016	0.09 (J)	0.09 (J)	0.06 (J)	0.19 (J)					
8/31/2016					0.65	0.15 (J)	0.14 (J)		
10/19/2016	0.1 (J)	0.1 (J)	0.04 (J)						
10/20/2016				0.13 (J)					
10/26/2016					0.6	0.3			
11/7/2016							0.18 (J)		
12/6/2016	0.11 (J)	0.21 (J)	0.36						
1/13/2017							0.14 (J)		
1/24/2017	0.09 (J)	0.06 (J)	<0.1						
1/25/2017				0.22 (J)					
1/27/2017					1.2	0.3			
3/21/2017	0.13 (J)	0.005 (J)	<0.1						
5/22/2017	0.12 (J)	0.05 (J)	<0.1						
5/25/2017				0.12 (J)	1.4	0.05 (J)			
6/3/2017							0.15 (J)		
8/11/2017				0.12 (J)		0.1 (J)			
10/2/2017					1		1.2		
10/3/2017	0.13 (J)	0.13 (J)	<0.1						
11/15/2017				0.05 (J)	1.3	<0.1	0.6		
4/2/2018	<0.1		<0.1						
4/3/2018		<0.1							
6/4/2018	0.074 (J)	<0.1	<0.1						
6/5/2018				0.15 (J)	0.48	0.078 (J)	0.19 (J)		
10/1/2018	<0.1	<0.1	<0.1						
10/2/2018				0.22 (J)	0.34	0.078 (J)			
10/5/2018							0.23 (J)		
3/12/2019	0.29 (J)	0.072 (J)	0.038 (J)						
4/1/2019		0.029 (J)							
4/2/2019	0.1 (J)		0.071 (J)	0.2 (J)	0.47				
4/3/2019						0.089 (J)	0.14 (J)		
6/17/2019					1.2				
6/18/2019				0.14 (J)					
8/22/2019				0.12 (J)	0.3 (J)		0.2 (J)		
8/23/2019						0.11 (J)			
9/23/2019	0.078 (J)	<0.1	<0.1						
10/21/2019				0.15 (J)		0.073 (J)	0.18 (J)		
10/22/2019					0.53				
3/2/2020	0.076 (J)	<0.1	<0.1						
3/24/2020				0.085 (J)		<0.1			
3/25/2020	0.098 (J)	<0.1	<0.1		0.43		0.095 (J)		
5/22/2020								0.1 (J)	0.46
6/15/2020					0.37				
6/16/2020	0.071 (J)	<0.1						0.12	0.44
8/24/2020				0.075 (J)					
8/25/2020		<0.1	<0.1					0.16	0.52
8/26/2020					0.48		0.16		
8/27/2020						<0.1			
8/28/2020	0.08 (J)								
9/15/2020	0.082 (J)	<0.1	<0.1	0.096 (J)					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-124	HGWC-121A	HGWC-125	HGWC-126
9/16/2020									
9/18/2020									0.43
9/21/2020					0.33			0.11	
9/25/2020									
9/28/2020						<0.1	0.15		
11/10/2020									
11/11/2020									0.45
11/12/2020								0.12	
12/15/2020									
12/16/2020								0.2	0.49
1/19/2021									
1/20/2021								0.13	0.44
3/10/2021	0.079 (J)								
3/11/2021		<0.1	0.1	0.059 (J)					
3/12/2021					0.42			0.12	0.46
3/15/2021						<0.1	0.16		
8/11/2021	0.058 (J)								
8/12/2021		<0.1	<0.1						
8/13/2021				0.065 (J)					
8/16/2021					0.39	<0.1	0.15		
8/19/2021								0.17	0.43
2/1/2022	0.064 (J)	<0.1	<0.1	0.062 (J)					
2/2/2022					0.36	<0.1	0.15		
2/3/2022								0.18	0.51
8/2/2022	0.09 (J)	0.067 (J)	0.053 (J)	0.1					
8/4/2022					0.38	0.074 (J)	0.18	0.15	0.5

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
4/2/2018			
4/3/2018			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
3/12/2019			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
8/22/2019			
8/23/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/2/2020			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/24/2020			
8/25/2020			
8/26/2020			
8/27/2020			
8/28/2020			
9/15/2020			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
9/16/2020	0.22	0.22	
9/18/2020			
9/21/2020			
9/25/2020			0.21
9/28/2020			
11/10/2020	0.59	0.19	
11/11/2020			0.19
11/12/2020			
12/15/2020	0.67	0.21	
12/16/2020			0.18
1/19/2021	0.74	0.16	
1/20/2021			0.22
3/10/2021	0.65		
3/11/2021		0.2	
3/12/2021			0.2
3/15/2021			
8/11/2021		0.15	
8/12/2021			
8/13/2021	0.87		0.2
8/16/2021			
8/19/2021			
2/1/2022	0.96	0.19	0.15
2/2/2022			
2/3/2022			
8/2/2022	0.8	0.22	0.21
8/4/2022			

Prediction Limit

Constituent: pH (s.u.) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-124	HGWC-121A	HGWC-125	HGWC-126
5/19/2016	7.27	7.45	5.81						
7/11/2016	7.06		5.68						
7/12/2016		7.32							
8/30/2016	7.28	7.43	5.63	6.75					
8/31/2016					6.73	6.99	6.62		
10/19/2016	7.02	7.03	5.46						
10/20/2016				6.73					
10/27/2016					6.77	7.06			
11/7/2016							6.71		
12/6/2016	7.09	7.08	5.38						
1/13/2017							6.57		
1/24/2017	7.2	7.39	5.37						
1/25/2017				6.88					
1/27/2017					6.74	7.13			
3/21/2017	7.01	6.83	4.9						
5/22/2017	7.11	7.02	5.2						
5/25/2017				6.55	6.99	7.1			
6/3/2017							6.71		
8/11/2017				6.56		7.02			
10/2/2017					7.66		7.65		
10/3/2017	7.21	7.47	5.3						
11/15/2017				6.47	6.71	7.04	6.69		
4/2/2018	7.1		5.4						
4/3/2018		7.38							
6/4/2018	7.06	7.38	5.27						
6/5/2018				6.66	6.83	7.17	6.79		
10/1/2018	7.09	7.13	5.31						
10/2/2018				6.44	6.83	7.08			
10/5/2018							6.71		
3/12/2019	7.03	7.29	5.42						
4/1/2019		7.16							
4/2/2019	6.86		5.41	6.57	6.87				
4/3/2019						7.14	6.73		
8/22/2019				6.51	6.79		6.77		
8/23/2019						7.02			
9/23/2019	7.02	7.3	5.33						
10/21/2019				6.69		7.05	6.74		
10/22/2019					6.74				
3/2/2020	7.1	7.12	5.43						
3/24/2020				7.08		7.18			
3/25/2020	6.95	7.4	5.36		6.8		6.91		
5/22/2020								6.43	7.22
6/15/2020					6.8				
6/16/2020	6.97	7.31						6.29	6.92
8/24/2020				6.54					
8/25/2020		7.14	5.17					6.36	6.78
8/26/2020					6.96		6.73		
8/27/2020						7.15			
8/28/2020	7.02								
9/15/2020	7.15	7.29	5.22	6.68					
9/16/2020									
9/18/2020									6.97

Prediction Limit

Constituent: pH (s.u.) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-124	HGWC-121A	HGWC-125	HGWC-126
9/21/2020					6.98			6.22	
9/25/2020									
9/28/2020						7.27	6.93		
11/10/2020									
11/11/2020									6.86
11/12/2020								6.13	
12/15/2020									
12/16/2020								6.61	6.93
1/19/2021									
1/20/2021								6.23	6.99
3/10/2021	6.95								
3/11/2021		7.33	5.8	6.65					
3/12/2021					6.95			6.18	7.05
3/15/2021						7.22	6.87		
8/11/2021	6.98								
8/12/2021		7.31	5.05						
8/13/2021				6.56					
8/16/2021					6.92	7.09	6.74		
8/19/2021								7.24	7.32
2/1/2022	7.19	7.45	5.24	6.57					
2/2/2022					7	7.28	6.92		
2/3/2022								6.56	7.01
8/2/2022	7.03	7.02	4.57	6.67					
8/4/2022					6.93	7.15	6.8	6.09	6.99

Prediction Limit

Constituent: pH (s.u.) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/27/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
4/2/2018			
4/3/2018			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
3/12/2019			
4/1/2019			
4/2/2019			
4/3/2019			
8/22/2019			
8/23/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/2/2020			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/24/2020			
8/25/2020			
8/26/2020			
8/27/2020			
8/28/2020			
9/15/2020			
9/16/2020	7.83	7.52	
9/18/2020			

Prediction Limit

Constituent: pH (s.u.) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
9/21/2020			
9/25/2020			7.57
9/28/2020			
11/10/2020	7.84	7.27	
11/11/2020			7.4
11/12/2020			
12/15/2020	7.87	7.39	
12/16/2020			7.39
1/19/2021	7.86	7.39	
1/20/2021			7.47
3/10/2021	7.92		
3/11/2021		7.46	
3/12/2021			7.52
3/15/2021			
8/11/2021		7.4	
8/12/2021			
8/13/2021	7.77		7.42
8/16/2021			
8/19/2021			
2/1/2022	8.25	7.52	7.45
2/2/2022			
2/3/2022			
8/2/2022	7.9	7.15	7.39
8/4/2022			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-126	HGWC-125
5/19/2016	66.9	42.3	48.6						
7/11/2016	41		45						
7/12/2016		44							
8/30/2016	36	40	42	49					
8/31/2016					280	290	72		
10/19/2016	46	43	44						
10/20/2016				49					
10/26/2016						280	71		
11/7/2016					300				
12/6/2016	59	43	44						
1/13/2017					270				
1/24/2017	46	48	46						
1/25/2017				48					
1/27/2017						290	74		
3/21/2017	63	45	46						
5/22/2017	77	46	48						
5/25/2017				48		280	73		
6/3/2017					270				
8/11/2017				47			71		
10/2/2017					330	300			
10/3/2017	42	48	47						
11/15/2017				49	280	300	70		
6/4/2018	71.8	46.6	47.8						
6/5/2018				48.9	241	273	74		
10/1/2018	49.1	48.6	48.1						
10/2/2018				48.6		328	80.7		
10/5/2018					271				
4/1/2019		50.4							
4/2/2019	84.3		48.7	39.6		256			
4/3/2019					230		75.2		
6/17/2019					219	243			
6/18/2019				44.5			75.3		
9/23/2019	70.2	43.9	47.2						
10/21/2019				45.6	238		78.5		
10/22/2019						266			
3/24/2020				25.9			74.6		
3/25/2020	85.9	50.5	46.3		116	226			
5/22/2020								56.1	345
6/15/2020						212			
6/16/2020	88.2	49.5						57.6	320
8/25/2020								62.8	353
9/15/2020	47.3	44.7	51.5	41.4					
9/16/2020									
9/18/2020								62.7	
9/21/2020						225			352
9/25/2020									
9/28/2020					182		86.2		
11/10/2020									
11/11/2020								62.3	
11/12/2020									300
12/15/2020									
12/16/2020								68.1	306

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-126	HGWC-125
1/19/2021									
1/20/2021								66.6	335
3/10/2021	49.6								
3/11/2021		50.4	52.9	40.7					
3/12/2021						210		69.7	293
3/15/2021					177		74		
8/11/2021	48.9								
8/12/2021		38.6	47.4						
8/13/2021				42.1					
8/16/2021					158	211	74		
8/19/2021								64.4	264
2/1/2022	43.7	46	67.1	41.1					
2/2/2022					147	201	70.7		
2/3/2022								66.8	304
8/2/2022	58.1	43.5	86.9	41.5					
8/4/2022					162	230	73.1	68.3	331

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	43	43	
9/18/2020			
9/21/2020			
9/25/2020			6.8
9/28/2020			
11/10/2020	6.3	39	
11/11/2020			11.2
11/12/2020			
12/15/2020	6.7	38.8	
12/16/2020			11.3

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
1/19/2021	7.4	37.3	
1/20/2021			14.2
3/10/2021	<1		
3/11/2021		38.6	
3/12/2021			8.7
3/15/2021			
8/11/2021		30.5	
8/12/2021			
8/13/2021	56.1		8.1
8/16/2021			
8/19/2021			
2/1/2022	56.3	37.5	2.5
2/2/2022			
2/3/2022			
8/2/2022	13.2	37	2.1
8/4/2022			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-125	HGWC-126
5/19/2016	421	267	143						
7/11/2016	363		125						
7/12/2016		249							
8/30/2016	330	254	168	280					
8/31/2016					876	700	379		
10/19/2016	380	357	176						
10/20/2016				265					
10/26/2016						795	409		
11/7/2016					1000				
12/6/2016	377	285	145						
1/13/2017					827				
1/24/2017	342	300	129						
1/25/2017				371					
1/27/2017						706	370		
3/21/2017	340	288	103						
5/22/2017	338	263	92						
5/25/2017				237		669	351		
6/3/2017					846				
8/11/2017				253			322		
10/2/2017					884	672			
10/3/2017	343	300	127						
11/15/2017				261	838	721	350		
6/4/2018	415	266	140						
6/5/2018				276	823	723	360		
10/1/2018	354	291	135						
10/2/2018				256		703	363		
10/5/2018					813				
4/1/2019		284							
4/2/2019	452		133	814 (o)		540			
4/3/2019					785		369		
6/17/2019					751				
6/18/2019				233					
9/23/2019	442	268	129						
10/21/2019				296	771		357		
10/22/2019						693			
3/24/2020				278			355		
3/25/2020	496	284	138		521	665			
5/22/2020								809	496
6/15/2020						685			
6/16/2020	632	448						665	508
8/25/2020								772	505
9/15/2020	265	258	124	267					
9/16/2020									
9/18/2020									452
9/21/2020						272		956	
9/25/2020									
9/28/2020					<10		176		
11/10/2020									
11/11/2020									468
11/12/2020								694	
12/15/2020									
12/16/2020								816	536

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-121A	HGWC-120	HGWC-124	HGWC-125	HGWC-126
1/19/2021									
1/20/2021								726	472
3/10/2021	348								
3/11/2021		267	169	206					
3/12/2021						584		664	474
3/15/2021					614		340		
8/11/2021	366								
8/12/2021		265	118						
8/13/2021				201					
8/16/2021					626	632	352		
8/19/2021								732	488
2/1/2022	270	350	156	203					
2/2/2022					638	612	347		
2/3/2022								726	466
8/2/2022	400	287	196	217					
8/4/2022					640	632	334	706	510

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	272	270	
9/18/2020			
9/21/2020			
9/25/2020			263
9/28/2020			
11/10/2020	307	287	
11/11/2020			276
11/12/2020			
12/15/2020	289	295	
12/16/2020			294

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/20/2022 6:56 PM View: A3 PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
1/19/2021	270	278	
1/20/2021			289
3/10/2021		289	
3/11/2021	279		
3/12/2021			260
3/15/2021			
8/11/2021	277		
8/12/2021			
8/13/2021		436	272
8/16/2021			
8/19/2021			
2/1/2022	156	444	268
2/2/2022			
2/3/2022			
8/2/2022	278	311	261
8/4/2022			

FIGURE E.

Appendix III Trend Test - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 7:00 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**HGWA-122 (bg)**	**-0.02454**	**-84**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWA-2 (bg)**	**0.002545**	**111**	**74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-120**	**-0.04213**	**-73**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-121A**	**-0.2499**	**-96**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-3 (bg)**	**2.436**	**99**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWC-121A**	**-5.681**	**-68**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWC-126**	**13.84**	**40**	**34**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-122 (bg)**	**-1.483**	**-76**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.619**	**101**	**74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-120**	**-16.59**	**-98**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-121A**	**-25.95**	**-96**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-121A**	**-52.05**	**-94**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**

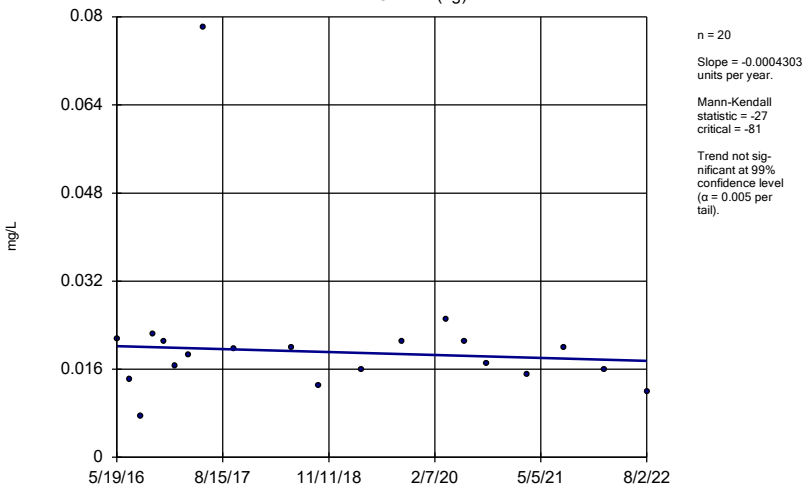
Appendix III Trend Test - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 7:00 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWA-1 (bg)	-0.0004303	-27	-81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWA-122 (bg)**	**-0.02454**	**-84**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWA-2 (bg)**	**0.002545**	**111**	**74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWA-3 (bg)	0.0003378	22	81	No	20	20	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-43D (bg)	-0.01038	-16	-21	No	8	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-44D (bg)	0.1016	13	21	No	8	12.5	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-45D (bg)	-0.01353	-11	-21	No	8	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWC-120**	**-0.04213**	**-73**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-121A**	**-0.2499**	**-96**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWC-125	0	8	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-1 (bg)	2.653	61	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-122 (bg)	-2.468	-40	-63	No	17	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-2 (bg)	0.7505	51	74	No	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWA-3 (bg)**	**2.436**	**99**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWA-43D (bg)	-3.927	-14	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-44D (bg)	-5.744	-14	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-45D (bg)	-3.572	-18	-21	No	8	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-120	1.46	33	68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWC-121A**	**-5.681**	**-68**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWC-125	8.147	10	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWC-126**	**13.84**	**40**	**34**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-1 (bg)	1.779	35	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWA-122 (bg)**	**-1.483**	**-76**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.619**	**101**	**74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-3 (bg)	0.673	52	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-43D (bg)	-1.657	-20	-21	No	8	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-44D (bg)	4.085	8	21	No	8	12.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-45D (bg)	-4.804	-12	-21	No	8	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWC-120**	**-16.59**	**-98**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-121A**	**-25.95**	**-96**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWC-125	-27.92	-21	-34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-1 (bg)	3.538	14	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-122 (bg)	-11.75	-48	-58	No	16	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-2 (bg)	1.249	6	74	No	19	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-3 (bg)	1.162	17	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-43D (bg)	-11.77	-8	-21	No	8	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-44D (bg)	59.96	18	21	No	8	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-45D (bg)	-7.51	-8	-21	No	8	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWC-121A**	**-52.05**	**-94**	**-63**	**Yes**	**17**	**5.882**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWC-125	-33.98	-12	-34	No	11	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

HGWA-1 (bg)



n = 20

Slope = -0.0004303 units per year.

Mann-Kendall statistic = -27 critical = -81

Trend not significant at 99% confidence level (α = 0.005 per tail).

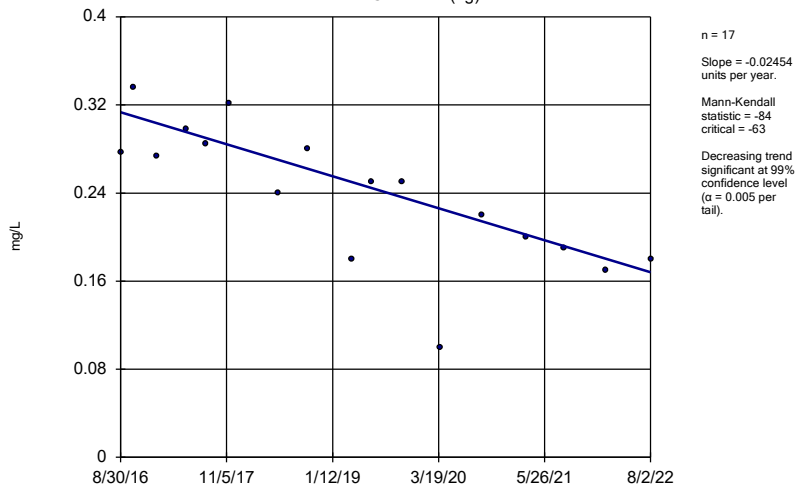
Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-122 (bg)



n = 17

Slope = -0.02454 units per year.

Mann-Kendall statistic = -84 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

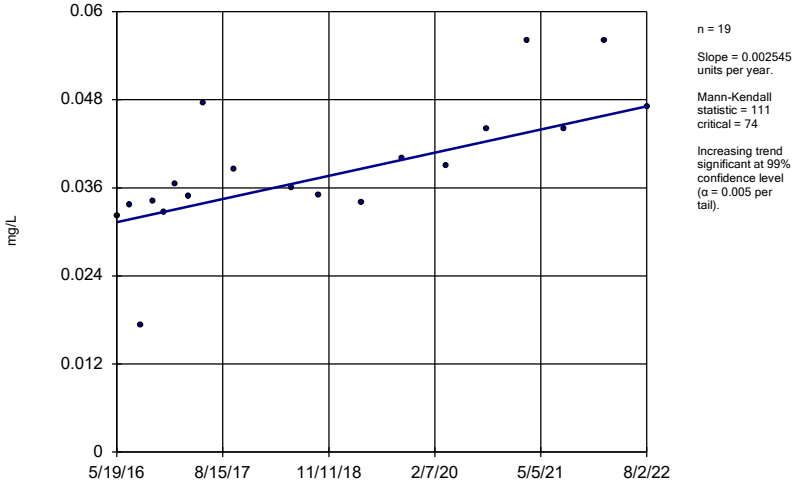
Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 19

Slope = 0.002545 units per year.

Mann-Kendall statistic = 111 critical = 74

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

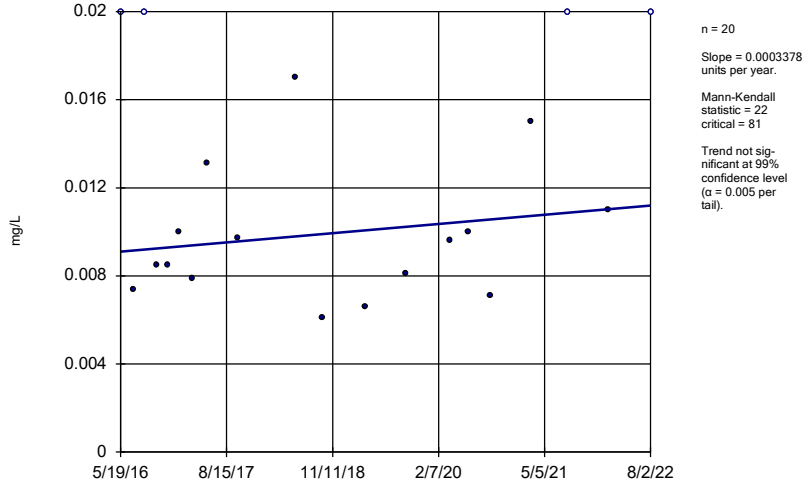
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-3 (bg)



n = 20

Slope = 0.0003378 units per year.

Mann-Kendall statistic = 22 critical = 81

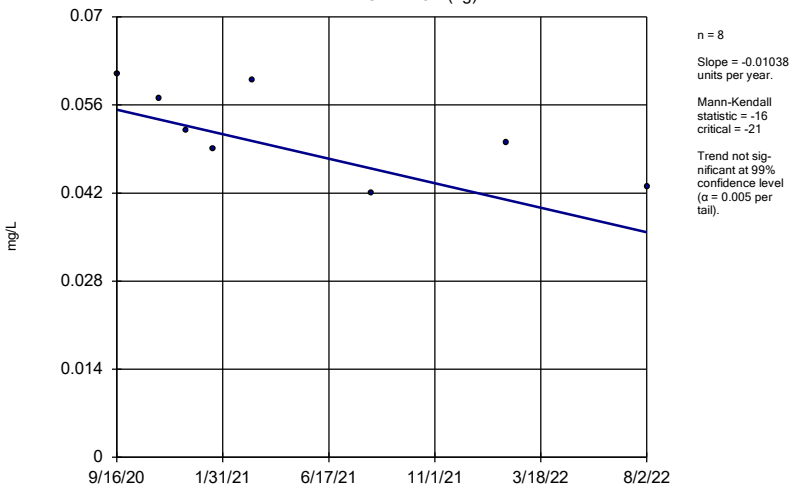
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-43D (bg)



n = 8

Slope = -0.01038 units per year.

Mann-Kendall statistic = -16
critical = -21

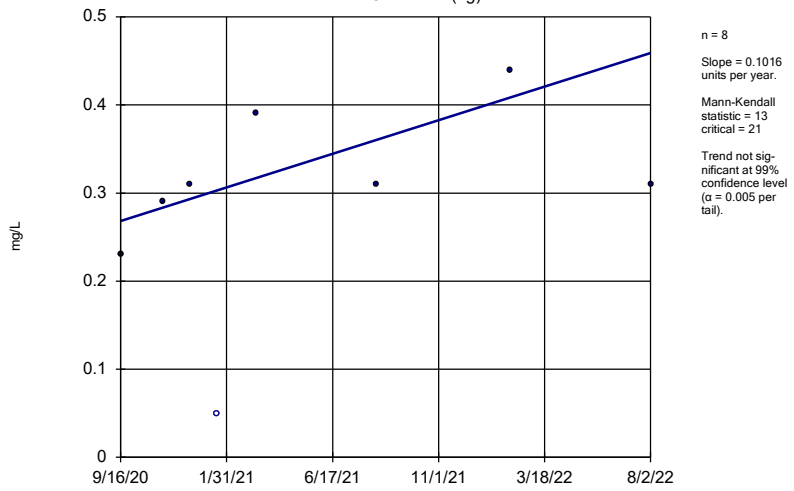
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-44D (bg)



n = 8

Slope = 0.1016 units per year.

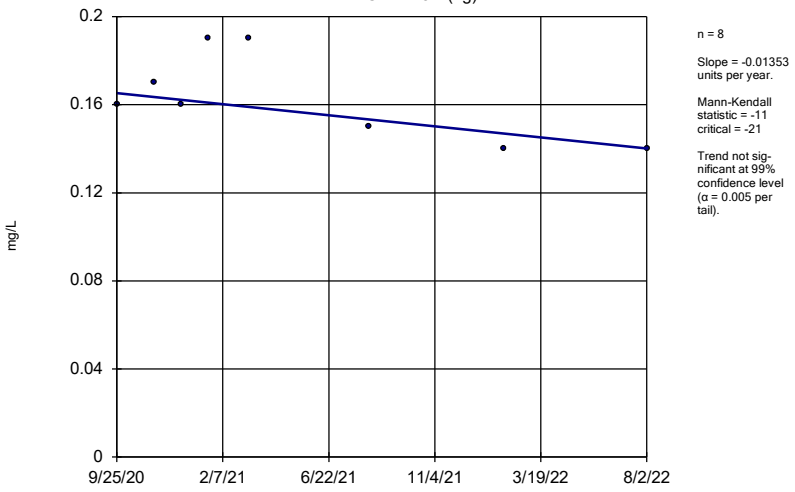
Mann-Kendall statistic = 13
critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-45D (bg)



n = 8

Slope = -0.01353 units per year.

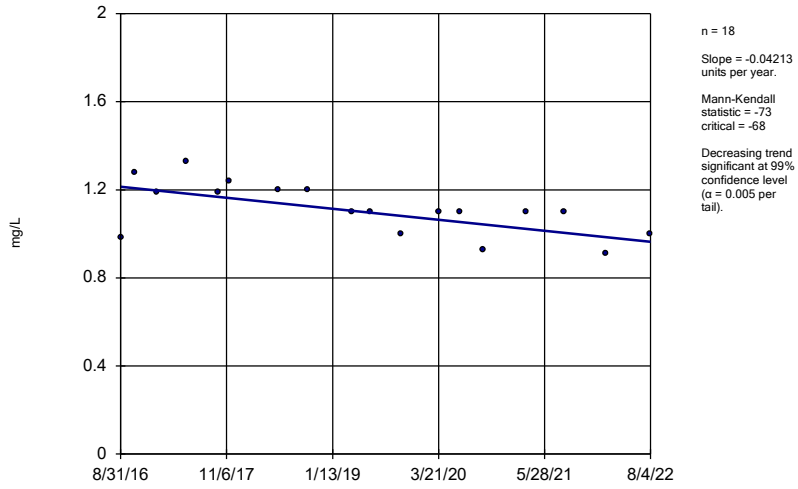
Mann-Kendall statistic = -11
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWC-120



n = 18

Slope = -0.04213 units per year.

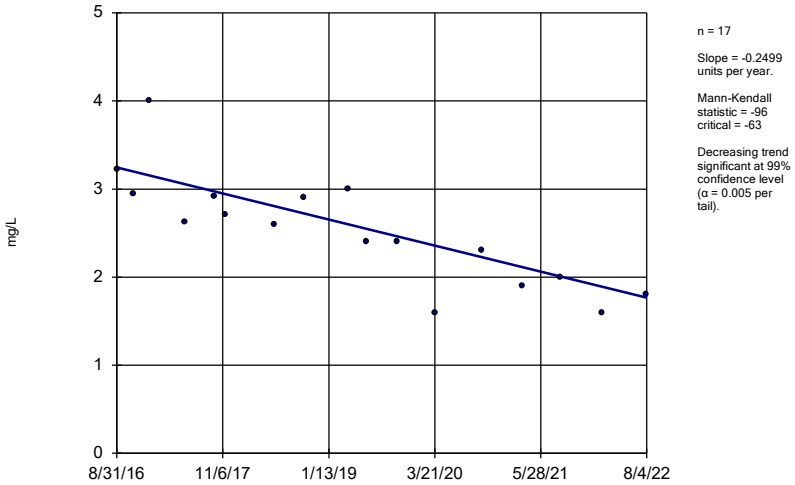
Mann-Kendall statistic = -73
critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWC-121A



n = 17

Slope = -0.2499 units per year.

Mann-Kendall statistic = -96 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

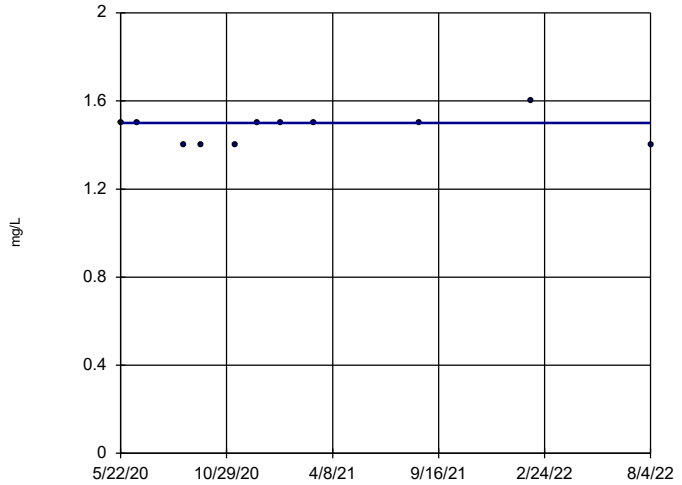
Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-125



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 8 critical = 34

Trend not significant at 99% confidence level (α = 0.005 per tail).

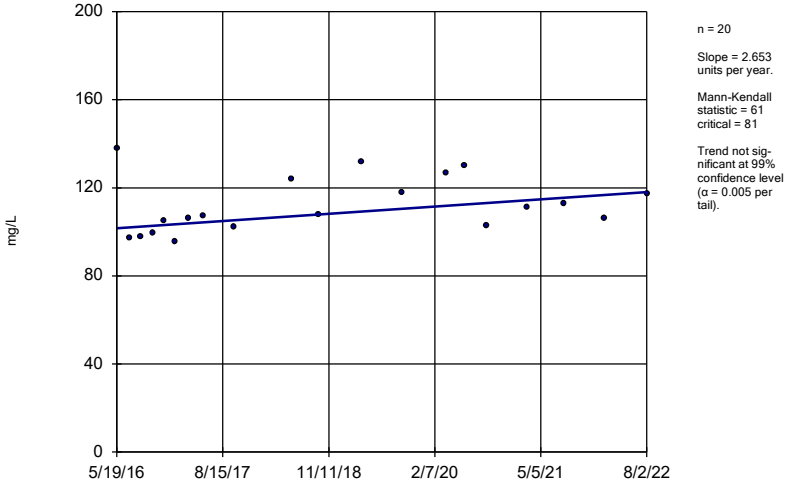
Constituent: Boron Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 20

Slope = 2.653 units per year.

Mann-Kendall statistic = 61 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

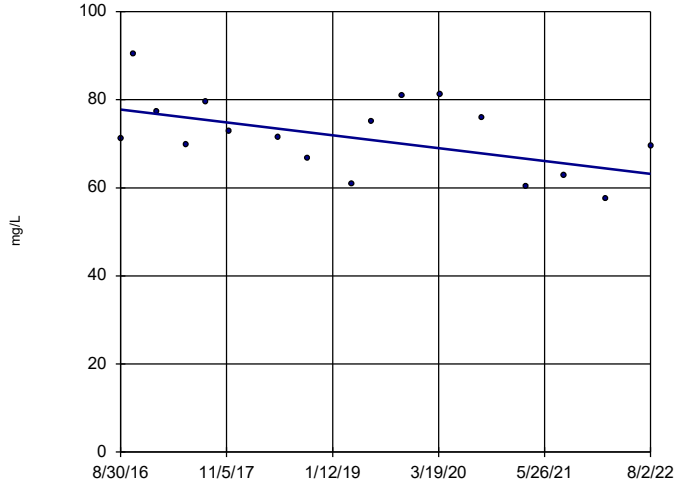
Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-122 (bg)



n = 17

Slope = -2.468 units per year.

Mann-Kendall statistic = -40 critical = -63

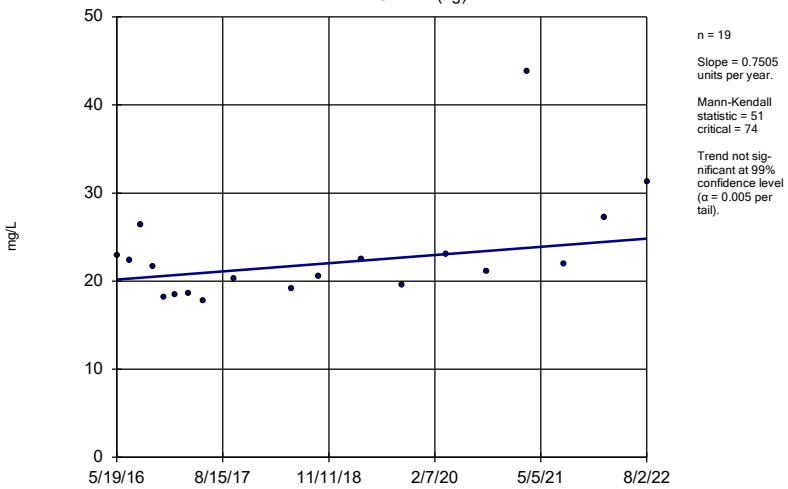
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-2 (bg)



n = 19

Slope = 0.7505 units per year.

Mann-Kendall statistic = 51
critical = 74

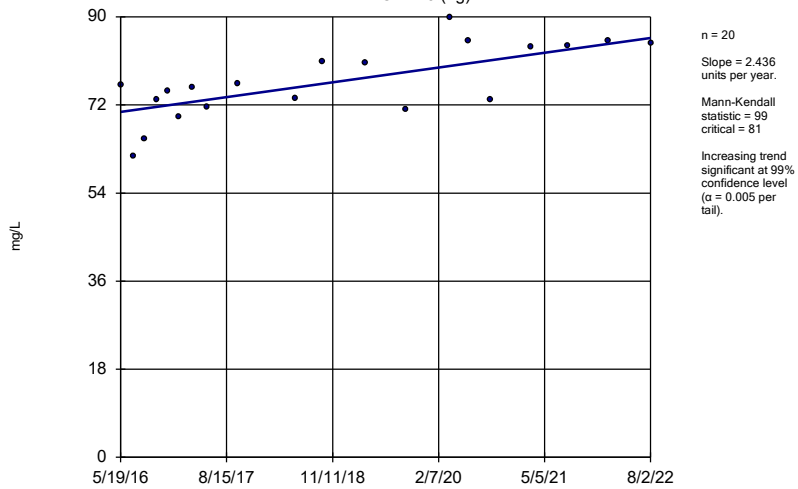
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-3 (bg)



n = 20

Slope = 2.436 units per year.

Mann-Kendall statistic = 99
critical = 81

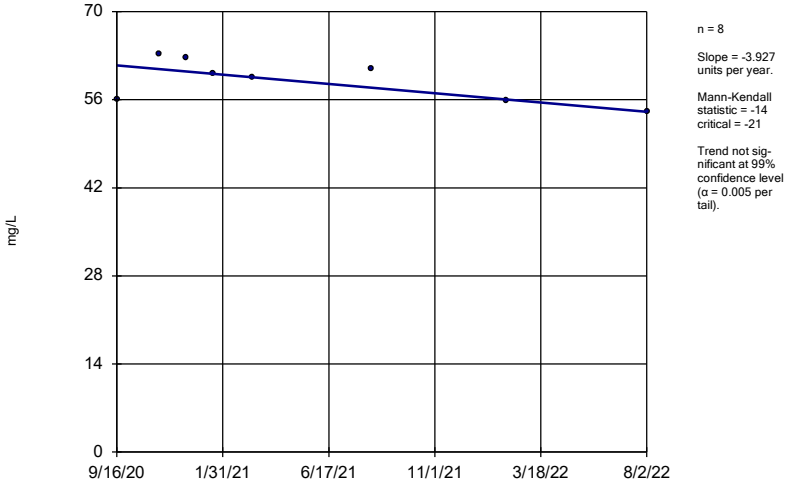
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 8

Slope = -3.927 units per year.

Mann-Kendall statistic = -14
critical = -21

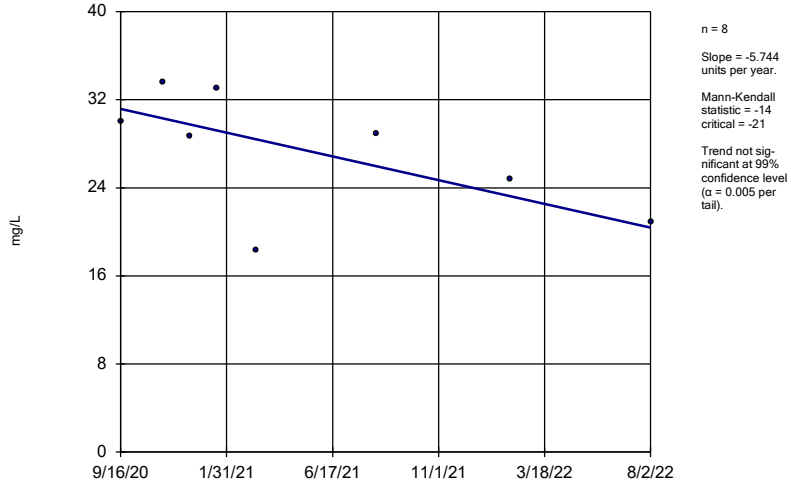
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-44D (bg)



n = 8

Slope = -5.744 units per year.

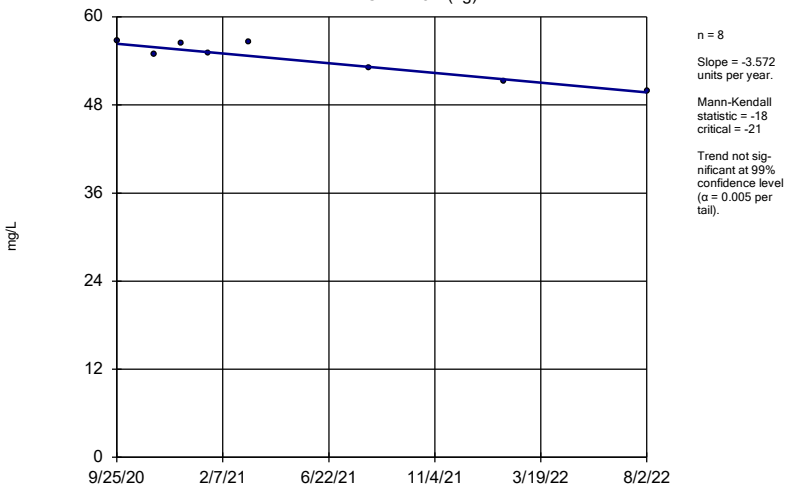
Mann-Kendall statistic = -14
critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-45D (bg)



n = 8

Slope = -3.572 units per year.

Mann-Kendall statistic = -18
critical = -21

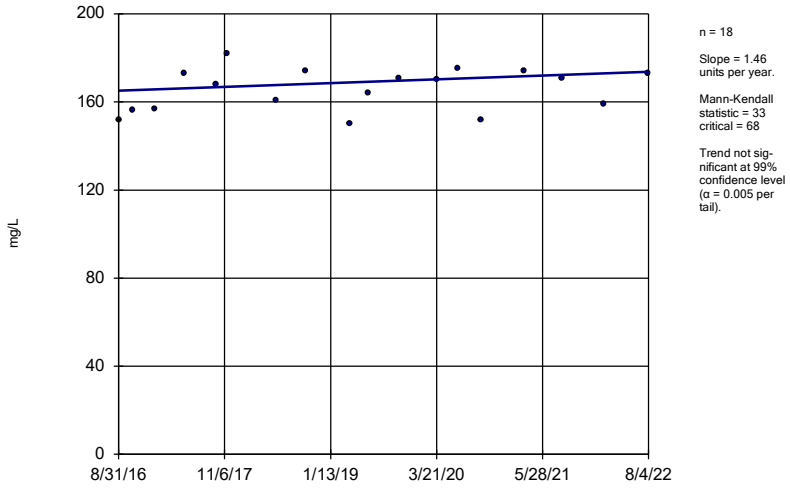
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-120



n = 18

Slope = 1.46 units per year.

Mann-Kendall statistic = 33
critical = 68

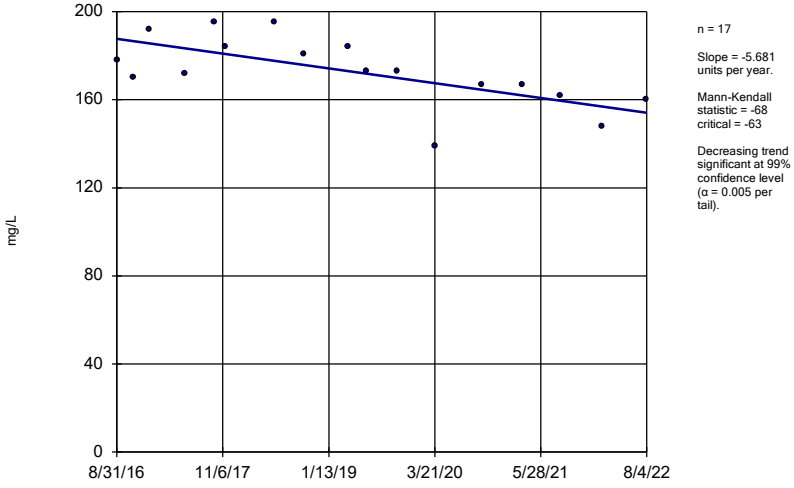
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-121A



n = 17

Slope = -5.681 units per year.

Mann-Kendall statistic = -68
critical = -63

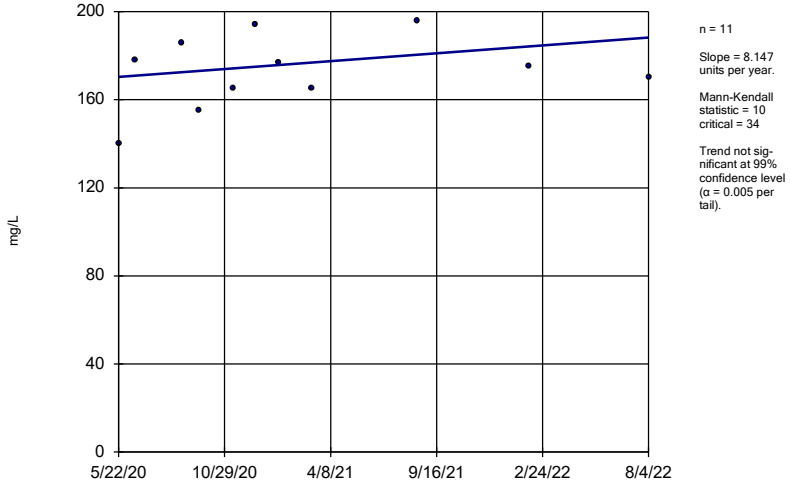
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-125



n = 11

Slope = 8.147 units per year.

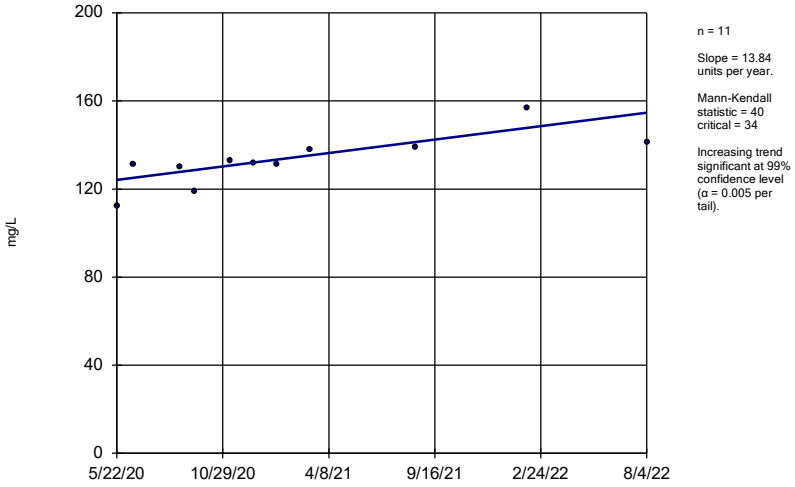
Mann-Kendall statistic = 10
critical = 34

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWC-126



n = 11

Slope = 13.84 units per year.

Mann-Kendall statistic = 40 critical = 34

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

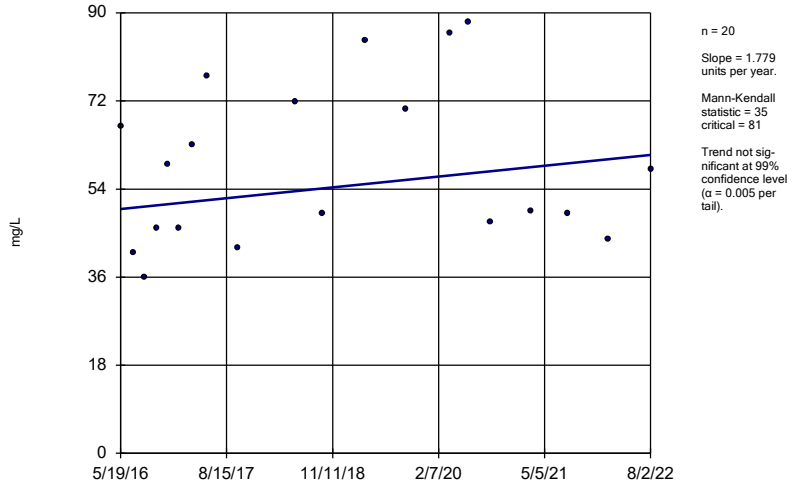
Constituent: Calcium Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 20

Slope = 1.779 units per year.

Mann-Kendall statistic = 35 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

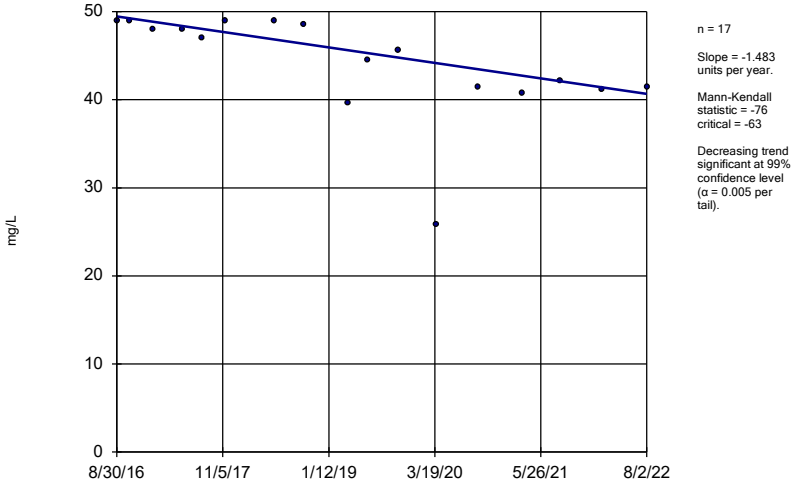
Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-122 (bg)



n = 17

Slope = -1.483 units per year.

Mann-Kendall statistic = -76 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

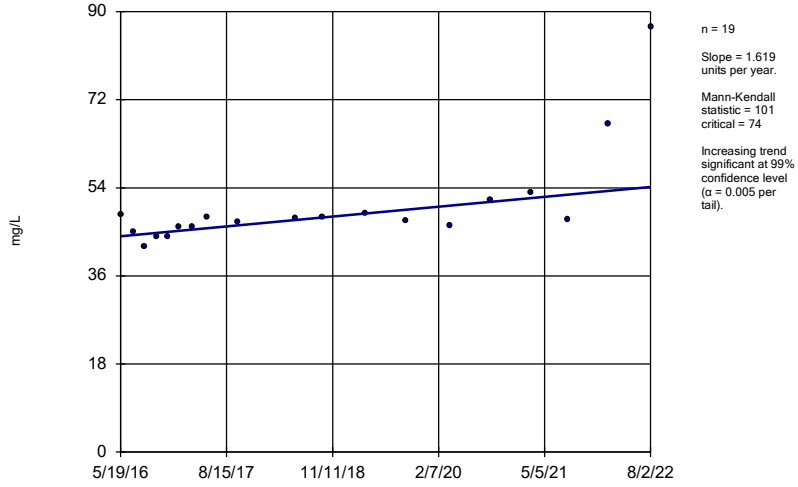
Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 19

Slope = 1.619 units per year.

Mann-Kendall statistic = 101 critical = 74

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

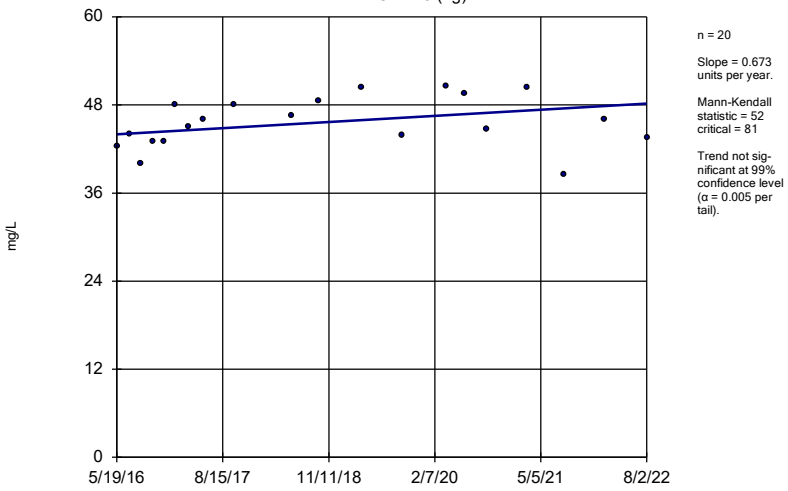
Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-3 (bg)



n = 20

Slope = 0.673 units per year.

Mann-Kendall statistic = 52 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

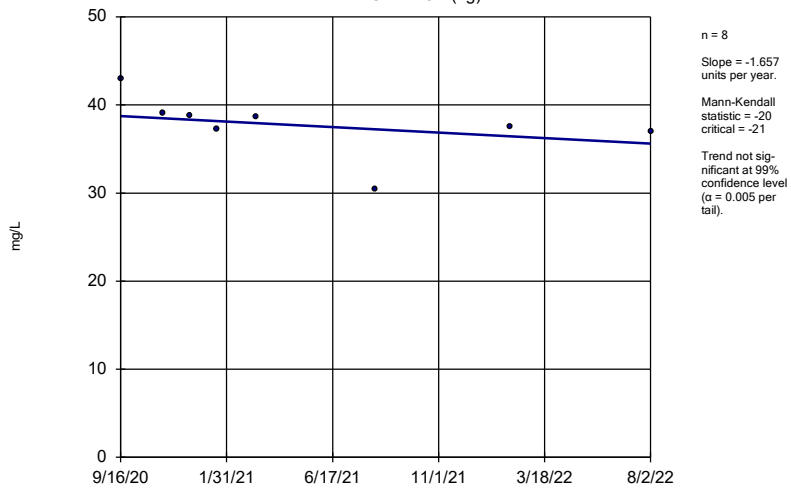
Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 8

Slope = -1.657 units per year.

Mann-Kendall statistic = -20 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

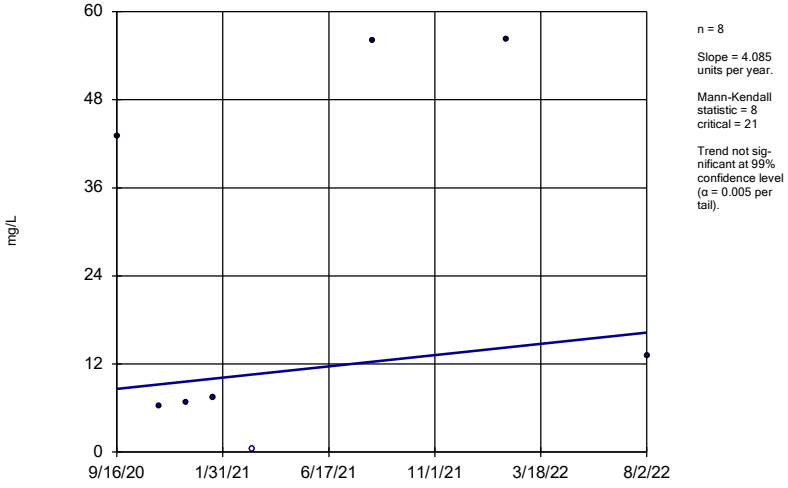
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-44D (bg)



n = 8

Slope = 4.085 units per year.

Mann-Kendall statistic = 8 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

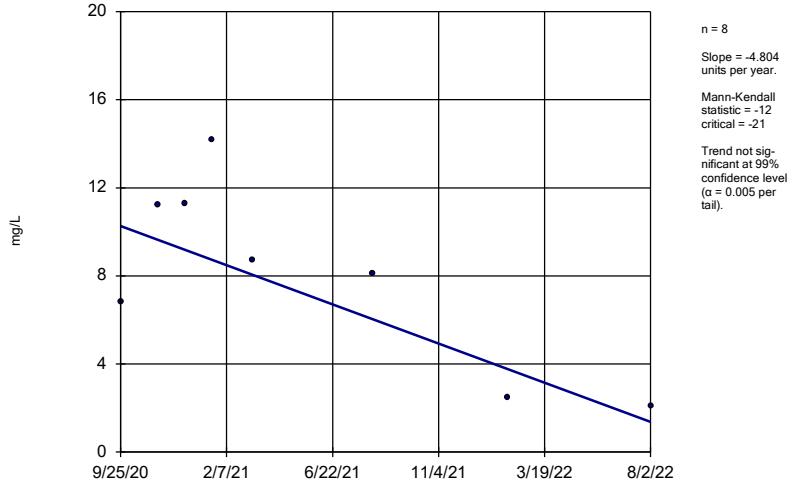
Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-45D (bg)



n = 8

Slope = -4.804 units per year.

Mann-Kendall statistic = -12 critical = -21

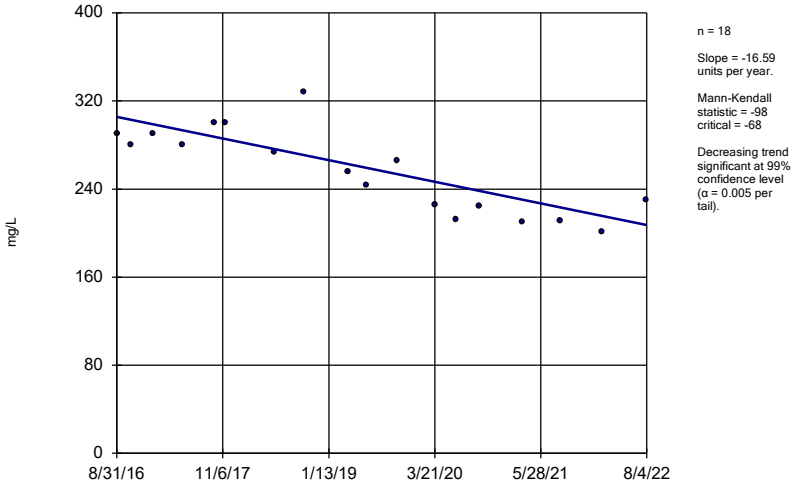
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWC-120



n = 18

Slope = -16.59 units per year.

Mann-Kendall statistic = -98
critical = -68

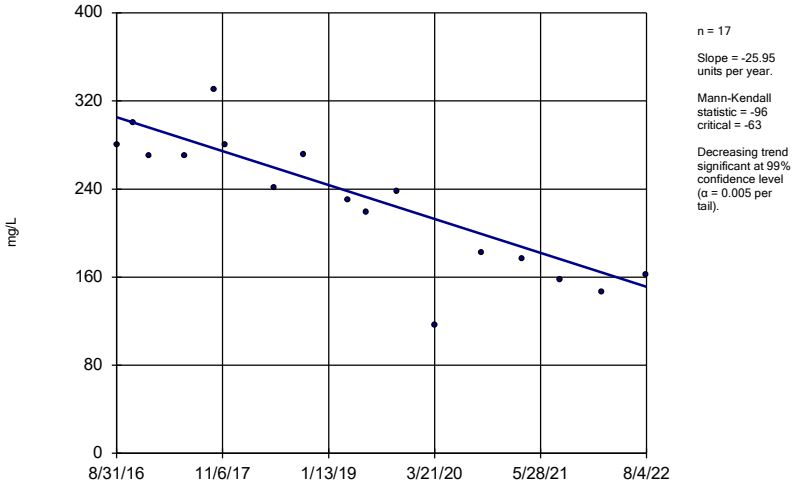
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-121A



n = 17

Slope = -25.95 units per year.

Mann-Kendall statistic = -96
critical = -63

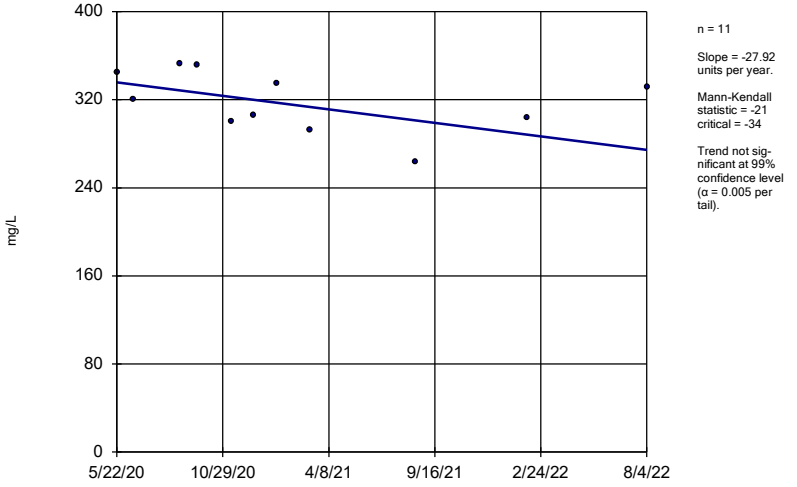
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-125



n = 11

Slope = -27.92 units per year.

Mann-Kendall statistic = -21
critical = -34

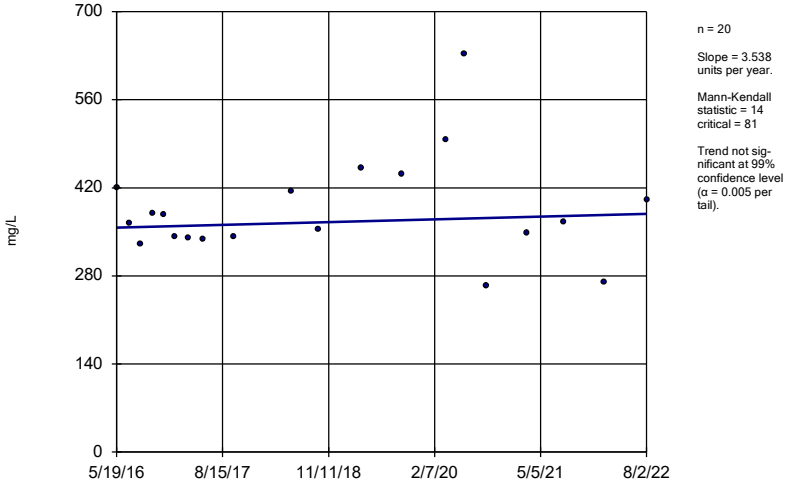
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 20

Slope = 3.538 units per year.

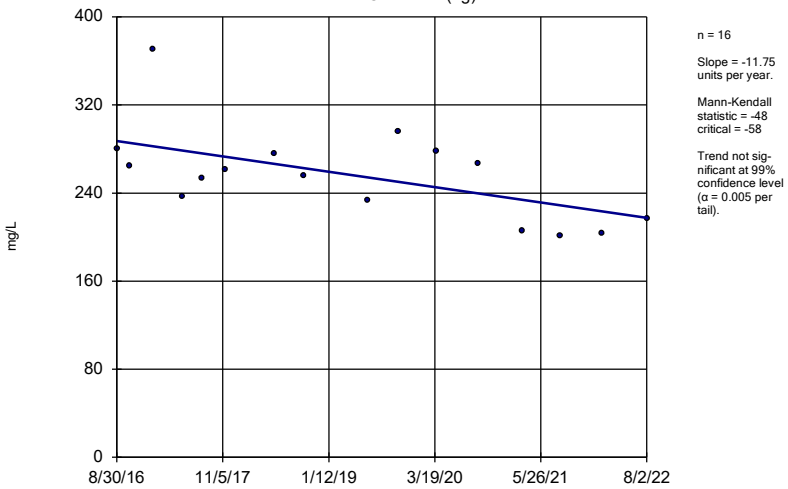
Mann-Kendall statistic = 14
critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-122 (bg)



n = 16

Slope = -11.75 units per year.

Mann-Kendall statistic = -48
critical = -58

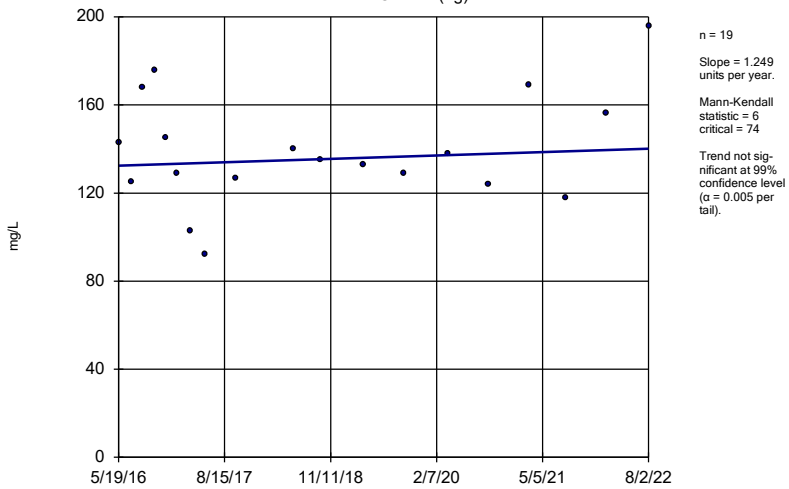
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-2 (bg)



n = 19

Slope = 1.249 units per year.

Mann-Kendall statistic = 6
critical = 74

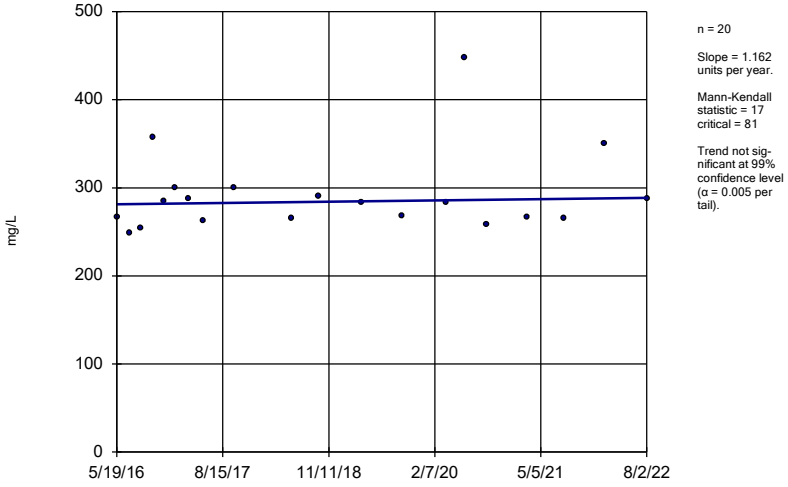
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-3 (bg)



n = 20

Slope = 1.162 units per year.

Mann-Kendall statistic = 17
critical = 81

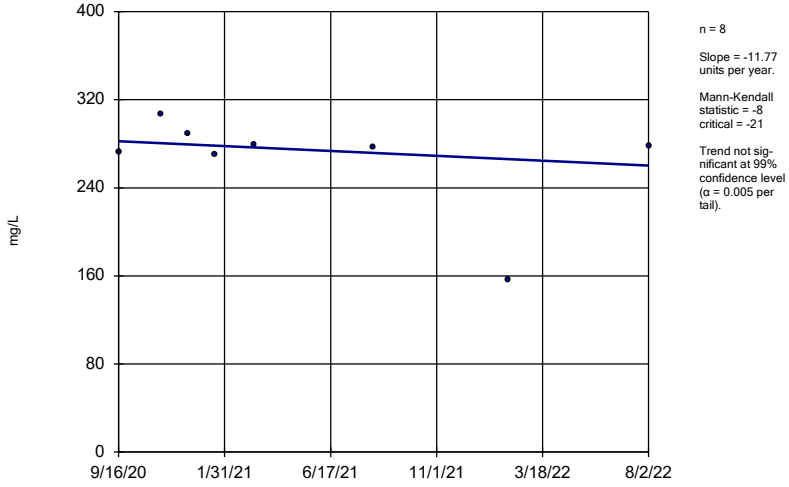
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-43D (bg)



n = 8

Slope = -11.77 units per year.

Mann-Kendall statistic = -8
critical = -21

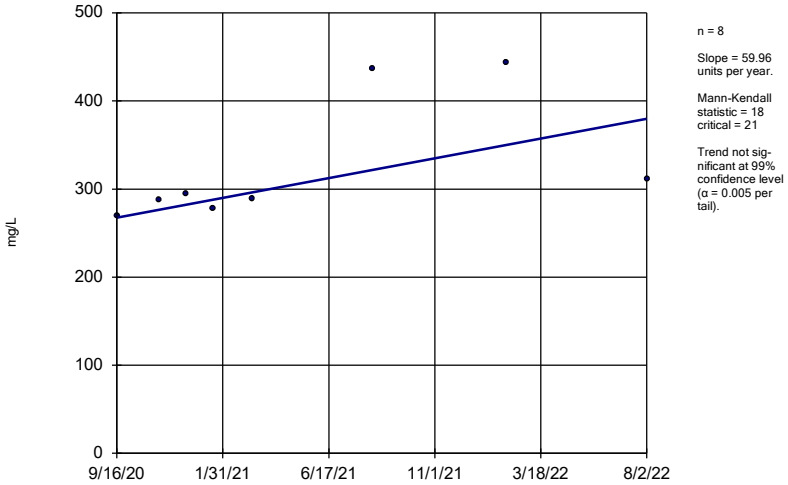
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-44D (bg)



n = 8

Slope = 59.96 units per year.

Mann-Kendall statistic = 18 critical = 21

Trend not significant at 99% confidence level (α = 0.005 per tail).

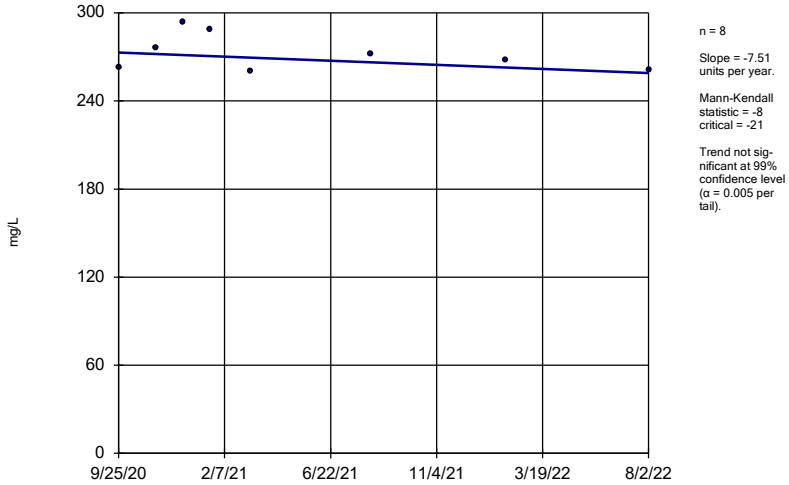
Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-45D (bg)



n = 8

Slope = -7.51 units per year.

Mann-Kendall statistic = -8 critical = -21

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

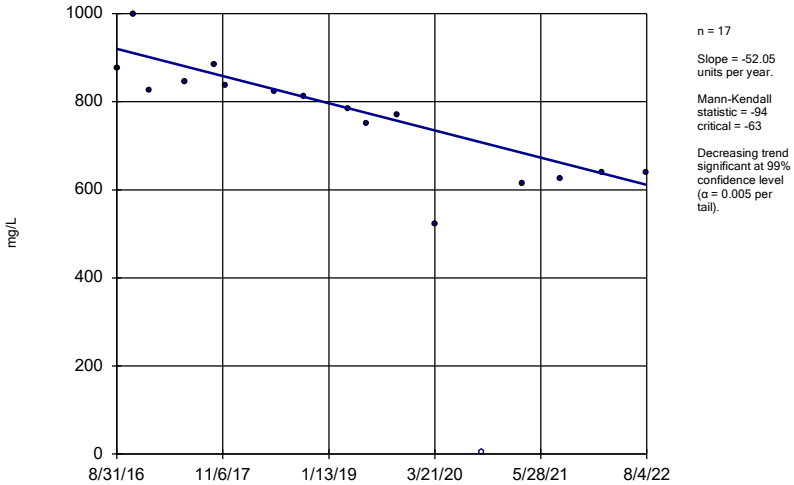
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWC-121A



n = 17

Slope = -52.05 units per year.

Mann-Kendall statistic = -94 critical = -63

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

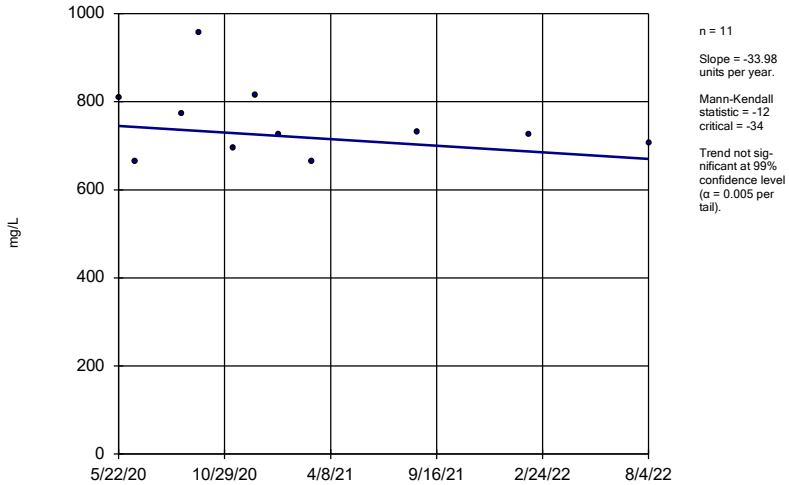
Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-125



n = 11

Slope = -33.98 units per year.

Mann-Kendall statistic = -12 critical = -34

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 10/20/2022 6:59 PM View: A3 Trend Test

Plant Hammond Client: Southern Company Data: Hammond AP-3

FIGURE F.

Upper Tolerance Limits

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 10/20/2022, 7:13 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	99	n/a	n/a	84.85	n/a	n/a	0.006232	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	97	n/a	n/a	70.1	n/a	n/a	0.006905	NP Inter(NDs)
Barium (mg/L)	n/a	0.64	n/a	n/a	n/a	107	n/a	n/a	0.9346	n/a	n/a	0.004135	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	99	n/a	n/a	82.83	n/a	n/a	0.006232	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	97	n/a	n/a	88.66	n/a	n/a	0.006905	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0079	n/a	n/a	n/a	101	n/a	n/a	78.22	n/a	n/a	0.005625	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.038	n/a	n/a	n/a	107	n/a	n/a	77.57	n/a	n/a	0.004135	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.648	n/a	n/a	n/a	100	0.787	0.2581	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	0.96	n/a	n/a	n/a	114	n/a	n/a	24.56	n/a	n/a	0.002887	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	101	n/a	n/a	67.33	n/a	n/a	0.005625	NP Inter(NDs)
Lithium (mg/L)	n/a	0.048	n/a	n/a	n/a	107	n/a	n/a	32.71	n/a	n/a	0.004135	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	79	n/a	n/a	93.67	n/a	n/a	0.01738	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	109	n/a	n/a	66.97	n/a	n/a	0.003731	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	97	n/a	n/a	97.94	n/a	n/a	0.006905	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	97	n/a	n/a	98.97	n/a	n/a	0.006905	NP Inter(NDs)

FIGURE G.

PLANT HAMMOND AP-3 GWPS				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.64	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0079	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.038	0.038
Combined Radium, Total (pCi/L)	5		1.65	5
Fluoride, Total (mg/L)	4		0.96	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.048	0.048
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indidcates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Statard*

FIGURE H.

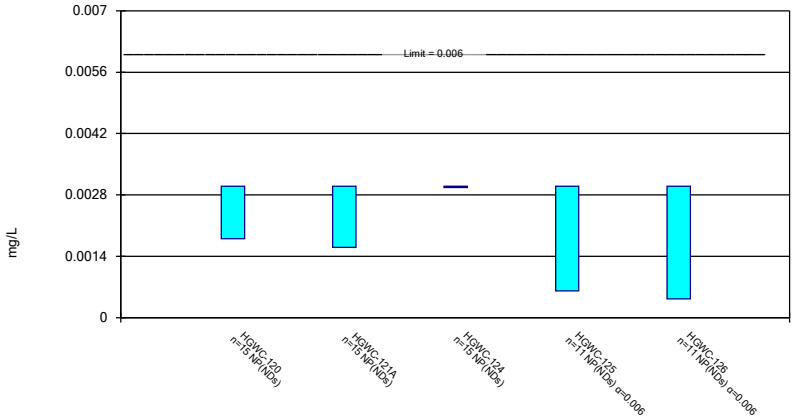
Confidence Interval - All Results (No Significant)

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 11/1/2022, 9:54 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	HGWC-120	0.003	0.0018	0.006	No	15	93.33	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-121A	0.003	0.0016	0.006	No	15	93.33	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-124	0.003	0.003	0.006	No	15	100	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-125	0.003	0.00061	0.006	No	11	81.82	No	0.006	NP (NDs)
Antimony (mg/L)	HGWC-126	0.003	0.00043	0.006	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	HGWC-120	0.005	0.001	0.01	No	13	61.54	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-121A	0.005	0.0014	0.01	No	13	76.92	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-124	0.005	0.0006	0.01	No	13	92.31	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-125	0.005	0.0014	0.01	No	10	70	No	0.011	NP (NDs)
Arsenic (mg/L)	HGWC-126	0.005	0.00091	0.01	No	10	70	No	0.011	NP (NDs)
Barium (mg/L)	HGWC-120	0.05171	0.04652	2	No	17	0	No	0.01	Param.
Barium (mg/L)	HGWC-121A	0.08026	0.06462	2	No	17	0	No	0.01	Param.
Barium (mg/L)	HGWC-124	0.0728	0.06747	2	No	17	0	No	0.01	Param.
Barium (mg/L)	HGWC-125	0.04629	0.0408	2	No	11	0	No	0.01	Param.
Barium (mg/L)	HGWC-126	0.2562	0.2275	2	No	11	0	No	0.01	Param.
Chromium (mg/L)	HGWC-120	0.005	0.0015	0.1	No	17	82.35	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-121A	0.005	0.0005	0.1	No	17	94.12	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-124	0.005	0.00051	0.1	No	17	88.24	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-125	0.005	0.00058	0.1	No	11	72.73	No	0.006	NP (NDs)
Chromium (mg/L)	HGWC-126	0.005	0.005	0.1	No	11	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	HGWC-120	0.004435	0.002982	0.038	No	17	0	sqrt(x)	0.01	Param.
Cobalt (mg/L)	HGWC-121A	0.005	0.0005	0.038	No	17	82.35	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-124	0.005	0.005	0.038	No	17	100	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-125	0.01265	0.007679	0.038	No	11	0	No	0.01	Param.
Cobalt (mg/L)	HGWC-126	0.005	0.005	0.038	No	11	100	No	0.006	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	HGWC-120	1.087	0.6342	5	No	16	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-121A	1.169	0.492	5	No	16	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-124	0.8959	0.5525	5	No	16	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-125	1.423	0.6226	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-126	1.687	0.9815	5	No	10	0	No	0.01	Param.
Fluoride (mg/L)	HGWC-120	1	0.37	4	No	20	0	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-121A	0.2	0.14	4	No	18	0	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-124	0.11	0.05	4	No	18	38.89	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-125	0.1686	0.115	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	HGWC-126	0.4938	0.4389	4	No	11	0	No	0.01	Param.
Lead (mg/L)	HGWC-120	0.001	0.0002	0.015	No	17	82.35	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-121A	0.001	0.00036	0.015	No	17	82.35	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-124	0.001	0.00008	0.015	No	17	70.59	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-125	0.001	0.000047	0.015	No	11	54.55	No	0.006	NP (NDs)
Lead (mg/L)	HGWC-126	0.001	0.000045	0.015	No	11	72.73	No	0.006	NP (NDs)
Lithium (mg/L)	HGWC-120	0.0337	0.023	0.048	No	17	0	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-121A	0.00897	0.007677	0.048	No	17	0	No	0.01	Param.
Lithium (mg/L)	HGWC-124	0.015	0.001	0.048	No	17	29.41	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-125	0.005757	0.00377	0.048	No	11	0	No	0.01	Param.
Lithium (mg/L)	HGWC-126	0.004109	0.003236	0.048	No	11	0	No	0.01	Param.
Mercury (mg/L)	HGWC-120	0.0002	0.00007	0.002	No	13	84.62	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-121A	0.0002	0.0002	0.002	No	13	100	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-124	0.0002	0.000051	0.002	No	13	92.31	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-125	0.0002	0.0002	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	HGWC-126	0.0002	0.0002	0.002	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	HGWC-120	0.03746	0.02651	0.1	No	17	0	No	0.01	Param.
Molybdenum (mg/L)	HGWC-121A	0.01	0.01	0.1	No	17	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	HGWC-124	0.01	0.00091	0.1	No	17	35.29	No	0.01	NP (normality)
Molybdenum (mg/L)	HGWC-125	0.01036	-0.0001221	0.1	No	11	27.27	No	0.01	Param.
Molybdenum (mg/L)	HGWC-126	0.01	0.01	0.1	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	HGWC-120	0.005	0.002	0.05	No	13	92.31	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-121A	0.005	0.0011	0.05	No	13	92.31	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-124	0.005	0.0014	0.05	No	13	92.31	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-125	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	HGWC-126	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

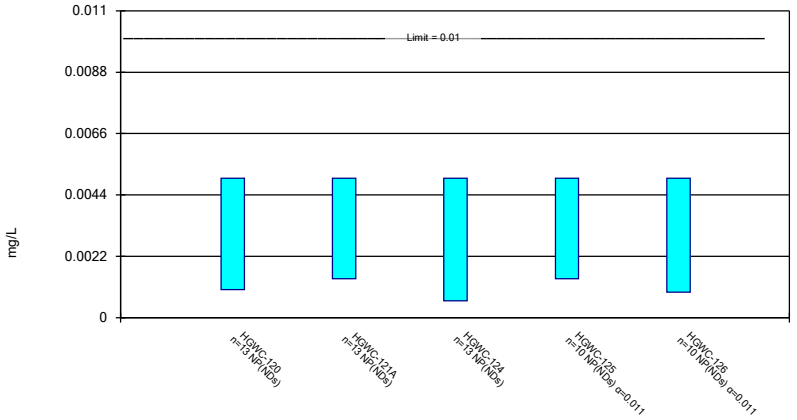


Constituent: Antimony Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

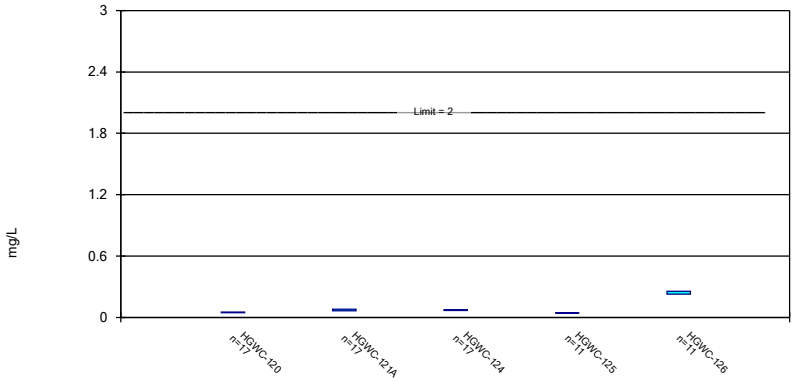


Constituent: Arsenic Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by 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.

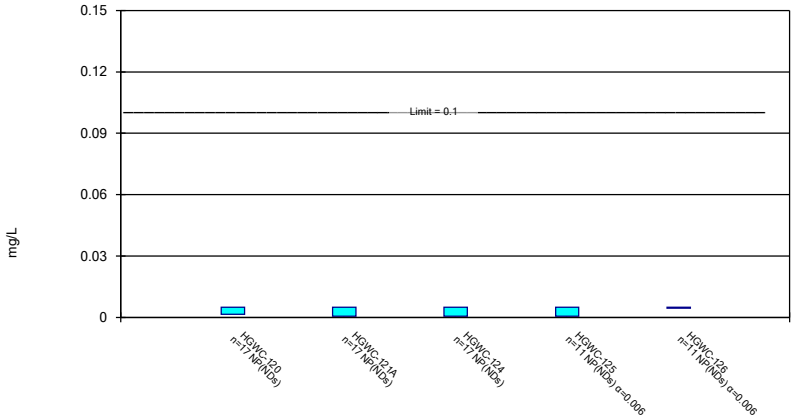


Constituent: Barium Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

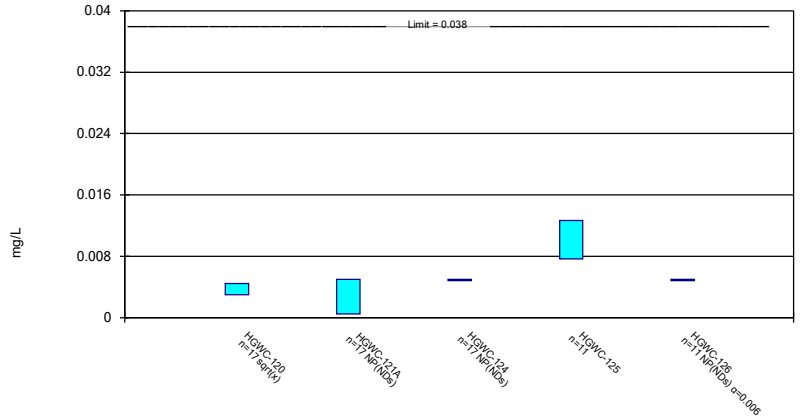
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Chromium Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Parametric and Non-Parametric (NP) Confidence Interval

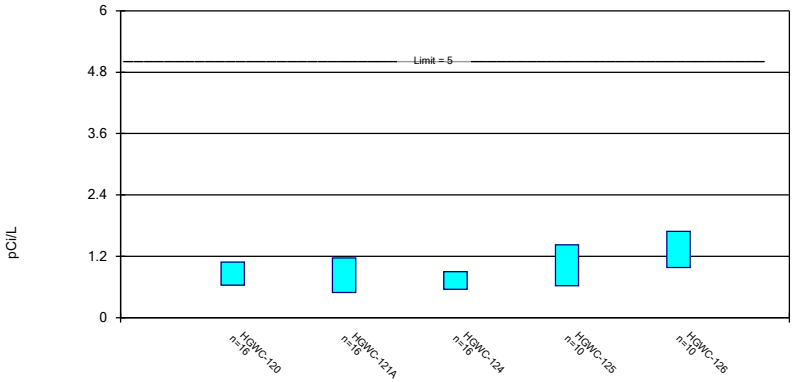
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Parametric Confidence Interval

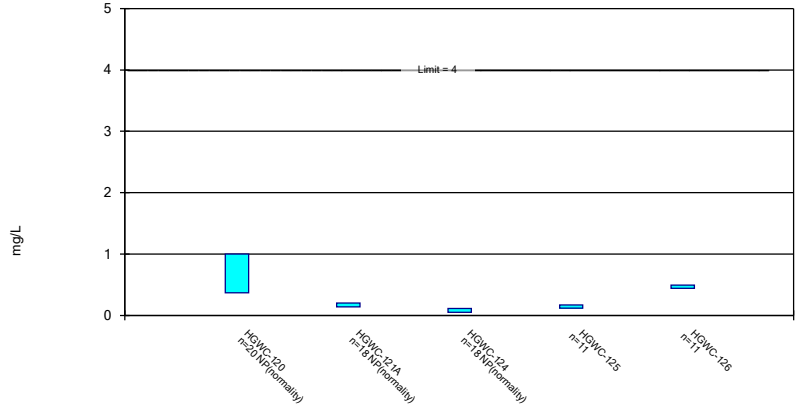
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Parametric and Non-Parametric (NP) Confidence Interval

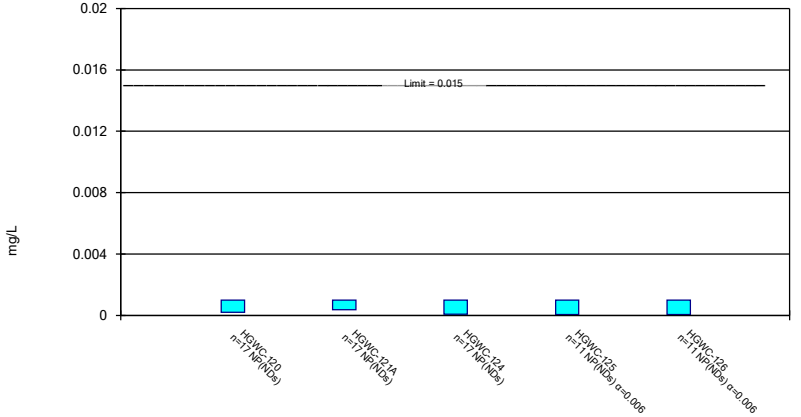
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Non-Parametric Confidence Interval

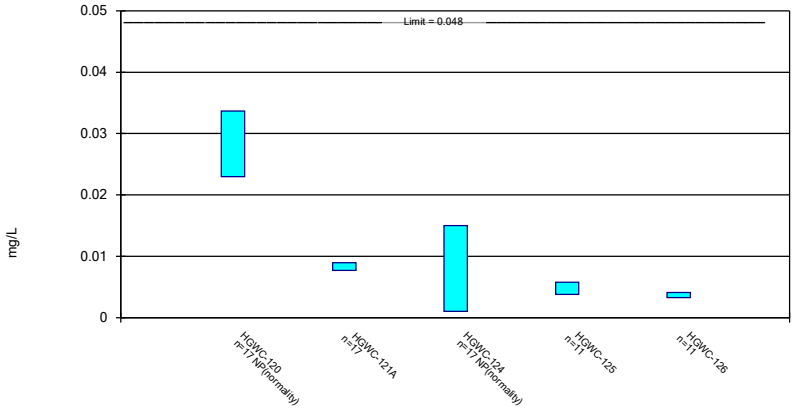
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

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.

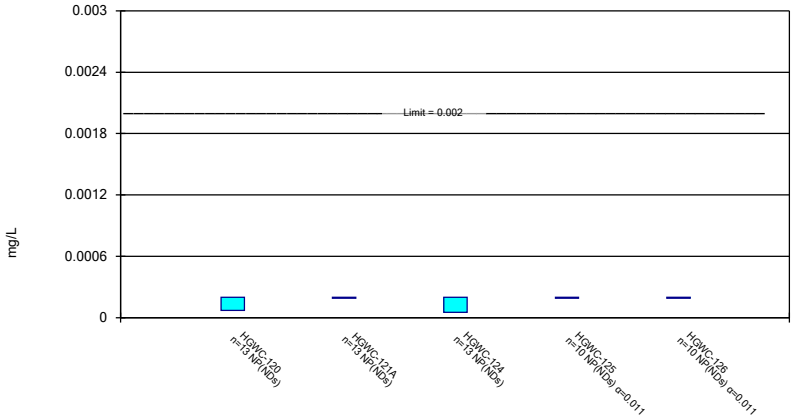


Constituent: Lithium Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

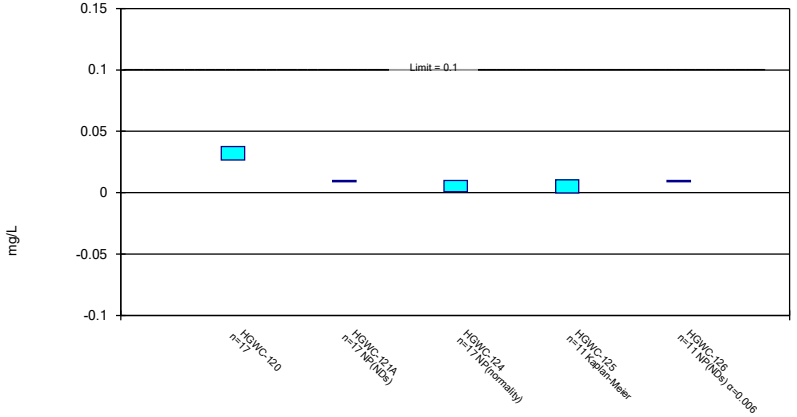


Constituent: Mercury Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.

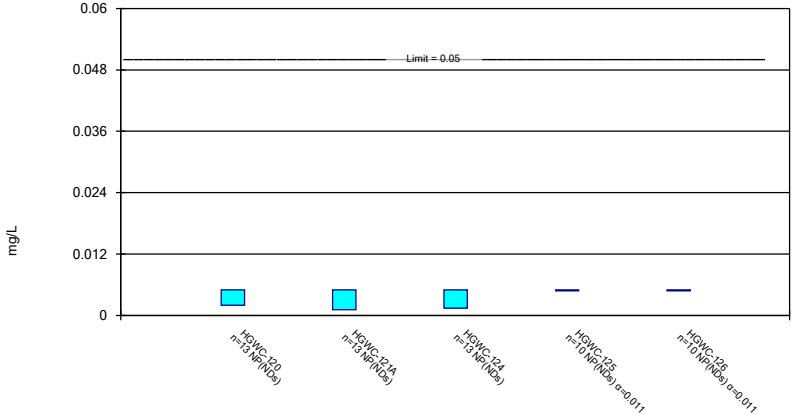


Constituent: Molybdenum Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.33 Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Selenium Analysis Run 11/1/2022 9:52 AM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.003	<0.003	<0.003		
10/26/2016	<0.003		<0.003		
11/7/2016		<0.003			
1/13/2017		<0.003			
1/27/2017	<0.003		<0.003		
5/25/2017	<0.003		<0.003		
6/3/2017		<0.003			
8/11/2017			<0.003		
10/2/2017	<0.003	<0.003			
11/15/2017	<0.003	<0.003	<0.003		
6/5/2018	<0.003	<0.003	<0.003		
10/2/2018	<0.003		<0.003		
10/5/2018		<0.003			
8/22/2019	<0.003	<0.003			
8/23/2019			<0.003		
5/22/2020				0.00047 (J)	<0.003
6/16/2020				<0.003	<0.003
8/25/2020				<0.003	<0.003
8/26/2020	<0.003	<0.003			
8/27/2020			<0.003		
9/18/2020					<0.003
9/21/2020	<0.003			<0.003	
9/28/2020		<0.003	<0.003		
11/11/2020					0.0004 (J)
11/12/2020				<0.003	
12/16/2020				<0.003	<0.003
1/20/2021				<0.003	<0.003
3/12/2021	0.0018 (J)			0.00061 (J)	0.00043 (J)
3/15/2021		<0.003	<0.003		
8/16/2021	<0.003	<0.003	<0.003		
8/19/2021				<0.003	<0.003
2/2/2022	<0.003	<0.003	<0.003		
2/3/2022				<0.003	<0.003
8/4/2022	<0.003	0.0016 (J)	<0.003	<0.003	<0.003
Mean	0.00292	0.002907	0.003	0.002553	0.00253
Std. Dev.	0.0003098	0.0003615	0	0.0009956	0.001046
Upper Lim.	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.0018	0.0016	0.003	0.00061	0.00043

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.005	<0.005	<0.005		
10/26/2016	<0.005		<0.005		
11/7/2016		<0.005			
1/13/2017		<0.005			
1/27/2017	<0.005		<0.005		
5/25/2017	0.0014 (J)		0.0006 (J)		
6/3/2017		0.001 (J)			
8/11/2017			<0.005		
10/2/2017	0.0007 (J)	<0.005			
11/15/2017	<0.005	<0.005	<0.005		
6/5/2018	0.001 (J)	0.0014 (J)	<0.005		
10/2/2018	<0.005		<0.005		
10/5/2018		<0.005			
8/22/2019	<0.005	<0.005			
8/23/2019			<0.005		
5/22/2020				0.00081 (J)	0.00071 (J)
6/16/2020				0.0014 (J)	0.00091 (J)
8/25/2020				<0.005	<0.005
8/26/2020	<0.005	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020				<0.005	
11/11/2020					<0.005
11/12/2020				<0.005	
12/16/2020				<0.005	<0.005
1/20/2021				<0.005	<0.005
8/16/2021	0.0015 (J)	0.0014 (J)	<0.005		
8/19/2021				<0.005	<0.005
2/2/2022	0.0014 (J)	<0.005	<0.005		
2/3/2022				0.0032 (J)	0.0026 (J)
8/4/2022	<0.005	<0.005	<0.005	<0.005	<0.005
Mean	0.003538	0.004138	0.004662	0.004041	0.003922
Std. Dev.	0.001934	0.00164	0.00122	0.001652	0.001803
Upper Lim.	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.001	0.0014	0.0006	0.0014	0.00091

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.045	0.0782	0.0744		
10/26/2016	0.0462		0.0735		
11/7/2016		0.0764			
1/13/2017		0.0744			
1/27/2017	0.0451		0.0632		
5/25/2017	0.0488		0.0773		
6/3/2017		0.0933			
8/11/2017			0.0672		
10/2/2017	0.0479	0.0815			
11/15/2017	0.051	0.0807	0.0707		
6/5/2018	0.051	0.078	0.07		
10/2/2018	0.059		0.067		
10/5/2018		0.074			
8/22/2019	0.05	0.066			
8/23/2019			0.066		
10/21/2019		0.074	0.075		
10/22/2019	0.051				
3/24/2020			0.075		
3/25/2020	0.052	0.099			
5/22/2020				0.048	0.24
6/16/2020				0.049	0.24
8/25/2020				0.045	0.23
8/26/2020	0.041	0.057			
8/27/2020			0.062		
9/18/2020					0.21
9/21/2020	0.046			0.042	
9/28/2020		0.056	0.071		
11/11/2020					0.23
11/12/2020				0.042	
12/16/2020				0.041	0.24
1/20/2021				0.045	0.25
3/12/2021	0.047			0.043	0.27
3/15/2021		0.059	0.071		
8/16/2021	0.052	0.06	0.069		
8/19/2021				0.044	0.27
2/2/2022	0.054	0.064	0.072		
2/3/2022				0.043	0.24
8/4/2022	0.048	0.06	0.068	0.037	0.24
Mean	0.04912	0.07244	0.07014	0.04355	0.2418
Std. Dev.	0.004139	0.01248	0.004251	0.003297	0.01722
Upper Lim.	0.05171	0.08026	0.0728	0.04629	0.2562
Lower Lim.	0.04652	0.06462	0.06747	0.0408	0.2275

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.005	<0.005	<0.005		
10/26/2016	<0.005		<0.005		
11/7/2016		<0.005			
1/13/2017		<0.005			
1/27/2017	<0.005		<0.005		
5/25/2017	<0.005		<0.005		
6/3/2017		<0.005			
8/11/2017			<0.005		
10/2/2017	<0.005	<0.005			
11/15/2017	<0.005	<0.005	<0.005		
6/5/2018	<0.005	<0.005	<0.005		
10/2/2018	<0.005		<0.005		
10/5/2018		<0.005			
8/22/2019	0.00072 (J)	<0.005			
8/23/2019			<0.005		
10/21/2019		<0.005	0.00046 (J)		
10/22/2019	<0.005				
3/24/2020			0.00051 (J)		
3/25/2020	0.0015 (J)	0.0005 (J)			
5/22/2020				0.00058 (J)	<0.005
6/16/2020				0.00052 (J)	<0.005
8/25/2020				<0.005	0.00096 (J)
8/26/2020	<0.005	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020	0.00065 (J)			<0.005	
9/28/2020		<0.005	<0.005		
11/11/2020					<0.005
11/12/2020				<0.005	
12/16/2020				<0.005	<0.005
1/20/2021				0.00081 (J)	<0.005
3/12/2021	<0.005			<0.005	<0.005
3/15/2021		<0.005	<0.005		
8/16/2021	<0.005	<0.005	<0.005		
8/19/2021				<0.005	<0.005
2/2/2022	<0.005	<0.005	<0.005		
2/3/2022				<0.005	<0.005
8/4/2022	<0.005	<0.005	<0.005	<0.005	<0.005
Mean	0.004286	0.004735	0.004469	0.00381	0.004633
Std. Dev.	0.001598	0.001091	0.001499	0.002039	0.001218
Upper Lim.	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0015	0.0005	0.00051	0.00058	0.005

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.0052 (J)	<0.005	<0.005		
10/26/2016	0.0041 (J)		<0.005		
11/7/2016		<0.005			
1/13/2017		<0.005			
1/27/2017	0.0034 (J)		<0.005		
5/25/2017	0.0035 (J)		<0.005		
6/3/2017		0.0005 (J)			
8/11/2017			<0.005		
10/2/2017	0.0036 (J)	0.0003 (J)			
11/15/2017	0.0032 (J)	0.0003 (J)	<0.005		
6/5/2018	0.0031 (J)	<0.005	<0.005		
10/2/2018	0.0025 (J)		<0.005		
10/5/2018		<0.005			
8/22/2019	0.0028 (J)	<0.005			
8/23/2019			<0.005		
10/21/2019		<0.005	<0.005		
10/22/2019	0.0031 (J)				
3/24/2020			<0.005		
3/25/2020	0.0036 (J)	<0.005			
5/22/2020				0.01	<0.005
6/16/2020				0.0096	<0.005
8/25/2020				0.0087	<0.005
8/26/2020	0.0023 (J)	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020	0.0041 (J)			0.012	
9/28/2020		<0.005	<0.005		
11/11/2020					<0.005
11/12/2020				0.012	
12/16/2020				0.0055	<0.005
1/20/2021				0.012	<0.005
3/12/2021	0.0027 (J)			0.014	<0.005
3/15/2021		<0.005	<0.005		
8/16/2021	0.0037 (J)	<0.005	<0.005		
8/19/2021				0.0054	<0.005
2/2/2022	0.0072	<0.005	<0.005		
2/3/2022				0.0086	<0.005
8/4/2022	0.0058	<0.005	<0.005	0.014	<0.005
Mean	0.003759	0.004182	0.005	0.01016	0.005
Std. Dev.	0.001262	0.001821	0	0.002982	0
Upper Lim.	0.004435	0.005	0.005	0.01265	0.005
Lower Lim.	0.002982	0.0005	0.005	0.007679	0.005

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	1.47	1.57	1.22		
10/26/2016	0.864 (U)		0.637 (U)		
11/7/2016		0.739 (U)			
1/13/2017		0.744 (U)			
1/27/2017	0.521 (U)		0.795 (U)		
5/25/2017	0.681 (U)		0.896 (U)		
6/3/2017		0 (U)			
8/11/2017			0.828 (U)		
10/2/2017	0.632 (U)	0.68 (U)			
11/15/2017	1.3	0.911 (U)	0.478 (U)		
6/5/2018	1.26 (U)	0.948 (U)	0.947 (U)		
10/2/2018	0.572 (U)		0.617 (U)		
10/5/2018		1.17 (U)			
8/22/2019	1.35	1.3			
8/23/2019			0.834		
10/21/2019		0.393 (U)	1.11 (U)		
10/22/2019	0.76 (U)				
3/24/2020			0.796 (U)		
3/25/2020	0.696 (U)	0.505 (U)			
5/22/2020				1.1 (U)	1.82
6/16/2020				1.62	1.82
8/25/2020				1.65	1.82
8/26/2020	0.357 (U)	1.96			
8/27/2020			0.494 (U)		
9/18/2020					0.841 (U)
9/21/2020	0.553 (U)			1.45	
9/28/2020		0.761 (U)	0.477 (U)		
11/11/2020					0.837 (U)
11/12/2020				0.633 (U)	
12/16/2020				0.818 (U)	1.26 (U)
1/20/2021				1.01 (U)	0.985 (U)
8/16/2021	1.25	0.192 (U)	0.734 (U)		
8/19/2021				0.721 (U)	1.11
2/2/2022	0.816 (U)	0.254 (U)	0.564 (U)		
2/3/2022				0.257 (U)	1.51
8/4/2022	0.687 (U)	1.16 (U)	0.16 (U)	0.971 (U)	1.34 (U)
Mean	0.8606	0.8304	0.7242	1.023	1.334
Std. Dev.	0.3479	0.5201	0.2639	0.4488	0.3954
Upper Lim.	1.087	1.169	0.8959	1.423	1.687
Lower Lim.	0.6342	0.492	0.5525	0.6226	0.9815

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.65	0.14 (J)	0.15 (J)		
10/26/2016	0.6		0.3		
11/7/2016		0.18 (J)			
1/13/2017		0.14 (J)			
1/27/2017	1.2		0.3		
5/25/2017	1.4		0.05 (J)		
6/3/2017		0.15 (J)			
8/11/2017			0.1 (J)		
10/2/2017	1	1.2			
11/15/2017	1.3	0.6	<0.1		
6/5/2018	0.48	0.19 (J)	0.078 (J)		
10/2/2018	0.34		0.078 (J)		
10/5/2018		0.23 (J)			
4/2/2019	0.47				
4/3/2019		0.14 (J)	0.089 (J)		
6/17/2019	1.2				
8/22/2019	0.3 (J)	0.2 (J)			
8/23/2019			0.11 (J)		
10/21/2019		0.18 (J)	0.073 (J)		
10/22/2019	0.53				
3/24/2020			<0.1		
3/25/2020	0.43	0.095 (J)			
5/22/2020				0.1 (J)	0.46
6/15/2020	0.37				
6/16/2020				0.12	0.44
8/25/2020				0.16	0.52
8/26/2020	0.48	0.16			
8/27/2020			<0.1		
9/18/2020					0.43
9/21/2020	0.33			0.11	
9/28/2020		0.15	<0.1		
11/11/2020					0.45
11/12/2020				0.12	
12/16/2020				0.2	0.49
1/20/2021				0.13	0.44
3/12/2021	0.42			0.12	0.46
3/15/2021		0.16	<0.1		
8/16/2021	0.39	0.15	<0.1		
8/19/2021				0.17	0.43
2/2/2022	0.36	0.15	<0.1		
2/3/2022				0.18	0.51
8/4/2022	0.38	0.18	0.074 (J)	0.15	0.5
Mean	0.6315	0.2442	0.09733	0.1418	0.4664
Std. Dev.	0.3655	0.2615	0.07858	0.03219	0.03295
Upper Lim.	1	0.2	0.11	0.1686	0.4938
Lower Lim.	0.37	0.14	0.05	0.115	0.4389

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.001	<0.001	<0.001		
10/26/2016	0.0002 (J)		<0.001		
11/7/2016		<0.001			
1/13/2017		<0.001			
1/27/2017	<0.001		<0.001		
5/25/2017	9E-05 (J)		<0.001		
6/3/2017		7E-05 (J)			
8/11/2017			8E-05 (J)		
10/2/2017	8E-05 (J)	<0.001			
11/15/2017	<0.001	<0.001	<0.001		
6/5/2018	<0.001	0.00036 (J)	<0.001		
10/2/2018	<0.001		<0.001		
10/5/2018		<0.001			
8/22/2019	<0.001	<0.001			
8/23/2019			4.9E-05 (J)		
10/21/2019		<0.001	4.9E-05 (J)		
10/22/2019	<0.001				
3/24/2020			9.4E-05 (J)		
3/25/2020	<0.001	<0.001			
5/22/2020				0.00014 (J)	<0.001
6/16/2020				0.00013 (J)	<0.001
8/25/2020				<0.001	4.5E-05 (J)
8/26/2020	<0.001	<0.001			
8/27/2020			<0.001		
9/18/2020					<0.001
9/21/2020	<0.001			<0.001	
9/28/2020		<0.001	7.5E-05 (J)		
11/11/2020					4.2E-05 (J)
11/12/2020				4.7E-05 (J)	
12/16/2020				<0.001	<0.001
1/20/2021				9.2E-05 (J)	<0.001
3/12/2021	<0.001			4.4E-05 (J)	4.6E-05 (J)
3/15/2021		0.00015 (J)	<0.001		
8/16/2021	<0.001	<0.001	<0.001		
8/19/2021				<0.001	<0.001
2/2/2022	<0.001	<0.001	<0.001		
2/3/2022				<0.001	<0.001
8/4/2022	<0.001	<0.001	<0.001	<0.001	<0.001
Mean	0.0008453	0.0008576	0.0007263	0.0005866	0.0007394
Std. Dev.	0.0003453	0.0003214	0.0004372	0.0004758	0.0004464
Upper Lim.	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.0002	0.00036	8E-05	4.7E-05	4.5E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.0333 (J)	0.0077 (J)	<0.03		
10/26/2016	0.0352 (J)		<0.03		
11/7/2016		0.0089 (J)			
1/13/2017		0.0091 (J)			
1/27/2017	0.0329 (J)		<0.03		
5/25/2017	0.0347 (J)		0.0011 (J)		
6/3/2017		0.0104 (J)			
8/11/2017			<0.03		
10/2/2017	0.0337 (J)	0.0095 (J)			
11/15/2017	0.0347 (J)	0.0086 (J)	<0.03		
6/5/2018	0.033 (J)	0.0092 (J)	0.0012 (J)		
10/2/2018	0.031 (J)		0.0012 (J)		
10/5/2018		0.0091 (J)			
8/22/2019	0.029 (J)	0.0084 (J)			
8/23/2019			0.0011 (J)		
10/21/2019		0.009 (J)	0.0011 (J)		
10/22/2019	0.03 (J)				
3/24/2020			0.0012 (J)		
3/25/2020	0.024 (J)	0.0066 (J)			
5/22/2020				0.0052 (J)	0.0046 (J)
6/16/2020				0.0053 (J)	0.0045 (J)
8/25/2020				0.0037 (J)	0.0037 (J)
8/26/2020	0.023 (J)	0.0071 (J)			
8/27/2020			0.00091 (J)		
9/18/2020					0.0035 (J)
9/21/2020	0.023 (J)			0.0038 (J)	
9/28/2020		0.0076 (J)	0.0011 (J)		
11/11/2020					0.0032 (J)
11/12/2020				0.0038 (J)	
12/16/2020				0.0055 (J)	0.0029 (J)
1/20/2021				0.0046 (J)	0.0038 (J)
3/12/2021	0.023 (J)			0.0039 (J)	0.0038 (J)
3/15/2021		0.0077 (J)	0.001 (J)		
8/16/2021	0.025 (J)	0.0075 (J)	0.0011 (J)		
8/19/2021				0.0074 (J)	0.0032 (J)
2/2/2022	0.025 (J)	0.0082 (J)	0.0012 (J)		
2/3/2022				0.0057 (J)	0.0038 (J)
8/4/2022	0.023 (J)	0.0069 (J)	0.0011 (J)	0.0035 (J)	0.0034 (J)
Mean	0.02903	0.008324	0.005195	0.004764	0.003673
Std. Dev.	0.004881	0.001032	0.006524	0.001192	0.0005236
Upper Lim.	0.0337	0.00897	0.015	0.005757	0.004109
Lower Lim.	0.023	0.007677	0.001	0.00377	0.003236

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	4E-05 (J)	<0.0002	<0.0002		
10/26/2016	<0.0002		<0.0002		
11/7/2016		<0.0002			
1/13/2017		<0.0002			
1/27/2017	<0.0002		<0.0002		
5/25/2017	7E-05 (J)		5.1E-05 (J)		
6/3/2017		<0.0002			
8/11/2017			<0.0002		
10/2/2017	<0.0002	<0.0002			
11/15/2017	<0.0002	<0.0002	<0.0002		
6/5/2018	<0.0002	<0.0002	<0.0002		
10/2/2018	<0.0002		<0.0002		
10/5/2018		<0.0002			
8/22/2019	<0.0002	<0.0002			
8/23/2019			<0.0002		
5/22/2020				<0.0002	<0.0002
6/16/2020				<0.0002	<0.0002
8/25/2020				<0.0002	<0.0002
8/26/2020	<0.0002	<0.0002			
8/27/2020			<0.0002		
9/18/2020					<0.0002
9/21/2020				<0.0002	
11/11/2020					<0.0002
11/12/2020				<0.0002	
12/16/2020				<0.0002	<0.0002
1/20/2021				<0.0002	<0.0002
8/16/2021	<0.0002	<0.0002	<0.0002		
8/19/2021				<0.0002	<0.0002
2/2/2022	<0.0002	<0.0002	<0.0002		
2/3/2022				<0.0002	<0.0002
8/4/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mean	0.0001777	0.0002	0.0001885	0.0002	0.0002
Std. Dev.	5.48E-05	0	4.133E-05	0	0
Upper Lim.	0.0002	0.0002	0.0002	0.0002	0.0002
Lower Lim.	7E-05	0.0002	5.1E-05	0.0002	0.0002

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.0176	<0.01	<0.01		
10/26/2016	0.0187		<0.01		
11/7/2016		<0.01			
1/13/2017		<0.01			
1/27/2017	0.0214		<0.01		
5/25/2017	0.0231		0.0009 (J)		
6/3/2017		<0.01			
8/11/2017			0.0013 (J)		
10/2/2017	0.0259	<0.01			
11/15/2017	0.0281	<0.01	0.0012 (J)		
6/5/2018	0.033	<0.01	<0.01		
10/2/2018	0.036		<0.01		
10/5/2018		<0.01			
8/22/2019	0.039	<0.01			
8/23/2019			0.0014 (J)		
10/21/2019		<0.01	0.0013 (J)		
10/22/2019	0.04				
3/24/2020			0.001 (J)		
3/25/2020	0.034	<0.01			
5/22/2020				<0.01	<0.01
6/16/2020				<0.01	<0.01
8/25/2020				0.00099 (J)	<0.01
8/26/2020	0.05	<0.01			
8/27/2020			0.00091 (J)		
9/18/2020					<0.01
9/21/2020	0.043			<0.01	
9/28/2020		<0.01	0.0009 (J)		
11/11/2020					<0.01
11/12/2020				0.0017 (J)	
12/16/2020				0.014	<0.01
1/20/2021				0.0013 (J)	<0.01
3/12/2021	0.033			0.0012 (J)	<0.01
3/15/2021		<0.01	0.00092 (J)		
8/16/2021	0.035	<0.01	0.00091 (J)		
8/19/2021				0.021	<0.01
2/2/2022	0.034	<0.01	0.001 (J)		
2/3/2022				0.0067 (J)	<0.01
8/4/2022	0.032	<0.01	<0.01	0.0023 (J)	<0.01
Mean	0.03199	0.01	0.00422	0.007199	0.01
Std. Dev.	0.008737	0	0.004403	0.006512	0
Upper Lim.	0.03746	0.01	0.01	0.01036	0.01
Lower Lim.	0.02651	0.01	0.00091	-0.0001221	0.01

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 11/1/2022 9:54 AM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.005	<0.005	<0.005		
10/26/2016	<0.005		<0.005		
11/7/2016		<0.005			
1/13/2017		0.0011 (J)			
1/27/2017	<0.005		<0.005		
5/25/2017	<0.005		<0.005		
6/3/2017		<0.005			
8/11/2017			<0.005		
10/2/2017	0.002 (J)	<0.005			
11/15/2017	<0.005	<0.005	<0.005		
6/5/2018	<0.005	<0.005	<0.005		
10/2/2018	<0.005		0.0014 (J)		
10/5/2018		<0.005			
8/22/2019	<0.005	<0.005			
8/23/2019			<0.005		
5/22/2020				<0.005	<0.005
6/16/2020				<0.005	<0.005
8/25/2020				<0.005	<0.005
8/26/2020	<0.005	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020				<0.005	
11/11/2020					<0.005
11/12/2020				<0.005	
12/16/2020				<0.005	<0.005
1/20/2021				<0.005	<0.005
8/16/2021	<0.005	<0.005	<0.005		
8/19/2021				<0.005	<0.005
2/2/2022	<0.005	<0.005	<0.005		
2/3/2022				<0.005	<0.005
8/4/2022	<0.005	<0.005	<0.005	<0.005	<0.005
Mean	0.004769	0.0047	0.004723	0.005	0.005
Std. Dev.	0.0008321	0.001082	0.0009985	0	0
Upper Lim.	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.002	0.0011	0.0014	0.005	0.005

January 2023

GROUNDWATER STATS CONSULTING

July 31, 2023

Southern Company Services
Attn: Ms. Kristen Jurinko
241 Ralph McGill Blvd. NE, Bin 10160
Atlanta, Georgia 30308

Re: Plant Hammond Ash Pond 3 (AP-3)
January 2023 Statistical Analysis

Dear Ms. Jurinko,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the January 2023 Semi-Annual Groundwater Detection and Assessment Monitoring Statistical analysis of groundwater data for Georgia Power Company's Plant Hammond AP-3. 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 began for the Coal Combustion Residuals (CCR) program in 2016, and at least 8 background samples have been collected at each of the groundwater monitoring wells, except for those discussed below. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** HGWA-1, HGWA-2, HGWA-3, HGWA-43D, HGWA-44D, HGWA-45D, and HGWA-122
- **Downgradient wells:** HGWC-120, HGWC-121A, HGWC-124, HGWC-125, and HGWC-126

New upgradient wells HGWA-43D, HGWA-44D, and HGWA-45D were first sampled in September 2020 and all available data are included in construction of interwell prediction limits. As requested by Southern Company Services, upgradient wells with 2 or more

samples will be incorporated into the statistical analyses. Sampling began at new downgradient wells HGWC-125 and HGWC-126 in May 2020 and also have at least 8 rounds of background sampling; therefore, they are statistically analyzed in this report with prediction limits and confidence intervals.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Andrew Collins, Project Manager of Groundwater Stats Consulting.

The CCR program consists of the following constituents listed below. The terms "constituent" and "parameter" are interchangeable.

- **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

When no detections are present in downgradient wells for a given constituent, statistical analyses are not required. A summary of downgradient Appendix IV well/constituent pairs containing 100% non-detects follows this letter. These well/constituent pairs were included in the time series and box plots, but no formal statistics were required.

For all constituents, a substitution of the most recent reporting limit is used for non-detect data. In the case of lithium, historical reporting limits vary among the wells. Therefore, the reporting limit of 0.03 mg/L was substituted across all wells, which is the most recent reporting limit provided by the laboratory.

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).

Data at all wells were evaluated during the background screening described below for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are

recommended. Power curves were provided with the screening and demonstrated that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Statistical Methods – Appendix III Parameters

Appendix III parameters are evaluated using interwell prediction limits combined with a 1-of-2 resample plan for the following constituents: boron, calcium, chloride, fluoride, pH, sulfate, and TDS.

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

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, 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.

Note that values shown on data pages reflect raw data and any non-detects that have been substituted with one-half of the reporting limit (for data sets containing <15% non-detects as described above) are shown as the original reporting limit.

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, an earlier portion of data may require deselection 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. When this step is required a summary of any adjusted records will be provided. No records were adjusted at this time.

Summary of Background Screening Conducted in March 2019

Outlier Analysis

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. Suspected outliers at all wells for Appendix III and Appendix 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. Those findings were submitted with the screening report.

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

Of the outliers identified by Tukey's method, only one outlier was flagged for TDS in upgradient well HGWA-112. All other values are similar to remaining measurements within a given well or neighboring wells or were reported non-detects. The outlier summary follows this report (Figure C).

Additionally, when any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well.

Seasonality

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 each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When any records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed one statistically significant decreasing trend for the Appendix III parameters. However, the trend noted was relatively low in magnitude when compared to average concentrations, and the background time period is short; therefore, no adjustments were made to the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) is typically used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. However, interwell methods are currently implemented in accordance with the Georgia EPD regulations and are used to evaluate compliance samples in downgradient wells.

Statistical Evaluation of Appendix III Parameters – January 2023

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 and a summary of previously flagged outliers follows this report (Figure C).

Interwell Prediction Limits

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed for each Appendix III parameter using all historical upgradient well data through January 2023 (Figure D). Interwell prediction limits use all available upgradient well data to establish a background limit for an individual constituent. The January 2023 sample from each downgradient well is compared to the background limit to determine whether initial exceedances 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 the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified and further research would be required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary. If no resample is collected, the initial exceedance is automatically confirmed. For Appendix III parameters, several prediction limit exceedances were identified. A summary table of the interwell prediction limits follows this letter. Exceedances were identified for the following well/constituent pairs:

- Boron: HGWC-120, HGWC-121A, and HGWC-125
- Calcium: HGWC-120, HGWC-121A, and HGWC-125
- Sulfate: HGWC-120, HGWC-121A, and HGWC-125
- TDS: HGWC-120 and HGWC-125

Trend Test Evaluation – Appendix III

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 well data 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. When trends are present in upgradient wells it is an indication of variability in groundwater quality unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were noted for the following well/constituent pairs:

Increasing trends:

- Boron: HGWA-2 (upgradient)
- Calcium: HGWA-3 (upgradient)
- Sulfate: HGWA-2 (upgradient)

Decreasing trends:

- Boron: HGWA-122 (upgradient), HGWC-120, and HGWC-121A
- Calcium: HGWA-121A
- Sulfate: HGWA-122 (upgradient), HGWC-43D (upgradient), HGWC-120, and HGWC-121A
- TDS: HGWC-120

Statistical Methods – Appendix IV Parameters

Appendix IV parameters are evaluated by statistically comparing the mean or median of each downgradient well/constituent pair against corresponding Groundwater Protection Standards (GWPS). The GWPS may be either regulatory (MCL or CCR rule-specified limits) or site-specific limits that are based on upgradient background groundwater quality. Site-specific background limits are determined using tolerance limits, and the comparison of downgradient means or medians to GWPS is performed using confidence intervals. The methods are described below.

Statistical Evaluation of Appendix IV Parameters – January 2023

For 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. Well/constituent pairs containing 100% non-detects do not require analyses. Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged and a summary of previously flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

First, interwell upper tolerance limits were used to calculate site-specific background limits from all available pooled upgradient well data through January 2023 for Appendix IV constituents (Figure F). As mentioned above, a reporting limit of 0.03 mg/L was substituted across all wells for lithium. 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.

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 G).

Confidence Intervals

To complete the statistical comparison of downgradient well data to GWPS, confidence intervals were constructed for the Appendix IV constituents in each downgradient well with detections (Figure H). Note that a GWPS is established for each Appendix IV constituent. However, since there are 100% non-detects for beryllium, cadmium, and thallium in downgradient wells, no confidence intervals were required for these constituents.

The Sanitas software was used to calculate the tolerance limits and the confidence intervals, either parametric or nonparametric, as appropriate. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number of samples available.

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. A

summary of the confidence intervals follows this letter and no exceedances were identified.

Trend Test Evaluation – Appendix IV

While this step was not necessary during this report, data at wells with confidence interval exceedances are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable. Upgradient wells are included in the trend analyses when a minimum of 5 samples are available to identify whether similar patterns exist upgradient of the site for the same constituents. When trends are present in upgradient trends, it is an indication of variability in groundwater quality unrelated to practices at the site.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Hammond AP-3. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Tristan Clark
Groundwater Analyst

Andrew Collins
Project Manager

100% Non-Detects: Appendix IV Downgradient

Analysis Run 3/29/2023 4:29 PM View: Appendix IV
Plant Hammond Client: Southern Company Data: Hammond AP-3

Beryllium (mg/L)
HGWC-120, HGWC-121A, HGWC-124, HGWC-125, HGWC-126

Cadmium (mg/L)
HGWC-120, HGWC-121A, HGWC-124, HGWC-125, HGWC-126

Cobalt (mg/L)
HGWC-124, HGWC-126

Mercury (mg/L)
HGWC-121A, HGWC-125, HGWC-126

Molybdenum (mg/L)
HGWC-121A, HGWC-126

Selenium (mg/L)
HGWC-125, HGWC-126

Thallium (mg/L)
HGWC-120, HGWC-121A, HGWC-124, HGWC-125, HGWC-126

Interwell Prediction Limits - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 5/12/2023, 2:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-120**	**0.44**	**n/a**	**1/25/2023**	**0.94**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-121A**	**0.44**	**n/a**	**1/24/2023**	**1.6**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-125**	**0.44**	**n/a**	**1/25/2023**	**1.4**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-120**	**138**	**n/a**	**1/25/2023**	**161**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-121A**	**138**	**n/a**	**1/24/2023**	**156**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-125**	**138**	**n/a**	**1/25/2023**	**174**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-120**	**88.2**	**n/a**	**1/25/2023**	**230**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-121A**	**88.2**	**n/a**	**1/24/2023**	**151**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-125**	**88.2**	**n/a**	**1/25/2023**	**306**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-120**	**632**	**n/a**	**1/25/2023**	**656**	**Yes**	**106**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001759**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-125**	**632**	**n/a**	**1/25/2023**	**798**	**Yes**	**106**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001759**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limits - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 5/12/2023, 2:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-120**	**0.44**	**n/a**	**1/25/2023**	**0.94**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-121A**	**0.44**	**n/a**	**1/24/2023**	**1.6**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	HGWC-124	0.44	n/a	1/24/2023	0.34	No	107	n/a	n/a	4.673	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Boron (mg/L)	**HGWC-125**	**0.44**	**n/a**	**1/25/2023**	**1.4**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	HGWC-126	0.44	n/a	1/25/2023	0.014J	No	107	n/a	n/a	4.673	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Calcium (mg/L)	**HGWC-120**	**138**	**n/a**	**1/25/2023**	**161**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-121A**	**138**	**n/a**	**1/24/2023**	**156**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	HGWC-124	138	n/a	1/24/2023	96.2	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Calcium (mg/L)	**HGWC-125**	**138**	**n/a**	**1/25/2023**	**174**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	HGWC-126	138	n/a	1/25/2023	132	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-120	44.8	n/a	1/25/2023	2.6	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-121A	44.8	n/a	1/24/2023	14.6	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-124	44.8	n/a	1/24/2023	2.5	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-125	44.8	n/a	1/25/2023	8.7	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-126	44.8	n/a	1/25/2023	8.7	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-120	1.3	n/a	1/25/2023	0.42	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-121A	1.3	n/a	1/24/2023	0.18	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-124	1.3	n/a	1/24/2023	0.068J	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-125	1.3	n/a	1/25/2023	0.17	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-126	1.3	n/a	1/25/2023	0.57	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-120	8.25	4.57	1/25/2023	6.87	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-121A	8.25	4.57	1/24/2023	6.75	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-124	8.25	4.57	1/24/2023	7.05	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-125	8.25	4.57	1/25/2023	6.32	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-126	8.25	4.57	1/25/2023	6.89	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-120**	**88.2**	**n/a**	**1/25/2023**	**230**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-121A**	**88.2**	**n/a**	**1/24/2023**	**151**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	HGWC-124	88.2	n/a	1/24/2023	69.6	No	107	n/a	n/a	0.9346	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-125**	**88.2**	**n/a**	**1/25/2023**	**306**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	HGWC-126	88.2	n/a	1/25/2023	63.7	No	107	n/a	n/a	0.9346	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**HGWC-120**	**632**	**n/a**	**1/25/2023**	**656**	**Yes**	**106**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001759**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	HGWC-121A	632	n/a	1/24/2023	602	No	106	n/a	n/a	0	n/a	n/a	0.0001759	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-124	632	n/a	1/24/2023	350	No	106	n/a	n/a	0	n/a	n/a	0.0001759	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**HGWC-125**	**632**	**n/a**	**1/25/2023**	**798**	**Yes**	**106**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001759**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	HGWC-126	632	n/a	1/25/2023	517	No	106	n/a	n/a	0	n/a	n/a	0.0001759	NP Inter (normality) 1 of 2

Appendix III Trend Tests - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 3/29/2023, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**HGWA-122 (bg)**	**-0.02355**	**-98**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWA-2 (bg)**	**0.002417**	**122**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-120**	**-0.04548**	**-87**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-121A**	**-0.2479**	**-111**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-3 (bg)**	**2.343**	**113**	**87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWC-121A**	**-5.528**	**-81**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-122 (bg)**	**-1.758**	**-91**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.847**	**118**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-43D (bg)**	**-2.015**	**-26**	**-25**	**Yes**	**9**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-120**	**-15.92**	**-103**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-121A**	**-24.83**	**-109**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-120**	**-16.21**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 3/29/2023, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWA-1 (bg)	-0.0005071	-38	-87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWA-122 (bg)**	**-0.02355**	**-98**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWA-2 (bg)**	**0.002417**	**122**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWA-3 (bg)	0.0004174	28	87	No	21	19.05	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-43D (bg)	-0.009889	-24	-25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-44D (bg)	0.08867	20	25	No	9	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-45D (bg)	-0.01181	-17	-25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWC-120**	**-0.04548**	**-87**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-121A**	**-0.2479**	**-111**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWC-125	0	1	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-1 (bg)	2.482	68	87	No	21	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-122 (bg)	-2.43	-49	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-2 (bg)	0.8789	66	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWA-3 (bg)**	**2.343**	**113**	**87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWA-43D (bg)	-3.051	-16	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-44D (bg)	-7.217	-22	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-45D (bg)	-2.921	-20	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-120	0.8066	28	74	No	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWC-121A**	**-5.528**	**-81**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWC-125	4.444	9	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-1 (bg)	1.051	29	87	No	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWA-122 (bg)**	**-1.758**	**-91**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.847**	**118**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-3 (bg)	0.5404	34	87	No	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWA-43D (bg)**	**-2.015**	**-26**	**-25**	**Yes**	**9**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-44D (bg)	2.752	8	25	No	9	11.11	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-45D (bg)	-3.036	-16	-25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWC-120**	**-15.92**	**-103**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-121A**	**-24.83**	**-109**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWC-125	-17.22	-23	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-1 (bg)	3.042	16	87	No	21	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-122 (bg)	-10.71	-52	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-2 (bg)	2.559	17	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-3 (bg)	1.746	27	87	No	21	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-43D (bg)	-6.294	-12	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-44D (bg)	39.45	22	25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-45D (bg)	-1.727	-3	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWC-120**	**-16.21**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWC-125	-10.77	-7	-38	No	12	0	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 5/16/2023, 2:21 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	106	85.85	n/a	0.004352	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	104	71.15	n/a	0.004822	NP Inter(NDs)
Barium (mg/L)	n/a	0.64	n/a	n/a	n/a	114	0.8772	n/a	0.002887	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	106	83.02	n/a	0.004352	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	104	88.46	n/a	0.004822	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0079	n/a	n/a	n/a	108	79.63	n/a	0.003928	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.038	n/a	n/a	n/a	114	78.07	n/a	0.002887	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.619	n/a	n/a	n/a	107	0	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	1.3	n/a	n/a	n/a	121	23.14	n/a	0.002016	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	108	69.44	n/a	0.003928	NP Inter(NDs)
Lithium (mg/L)	n/a	0.064	n/a	n/a	n/a	114	31.58	n/a	0.002887	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	86	94.19	n/a	0.01214	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	116	66.38	n/a	0.002606	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	104	98.08	n/a	0.004822	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	104	99.04	n/a	0.004822	NP Inter(NDs)

PLANT HAMMOND AP-3 GWPS				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.64	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0079	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.038	0.038
Combined Radium, Total (pCi/L)	5		1.62	5
Fluoride, Total (mg/L)	4		1.3	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.064	0.064
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indidcates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Statard*

Confidence Intervals - All Results (No Significant)

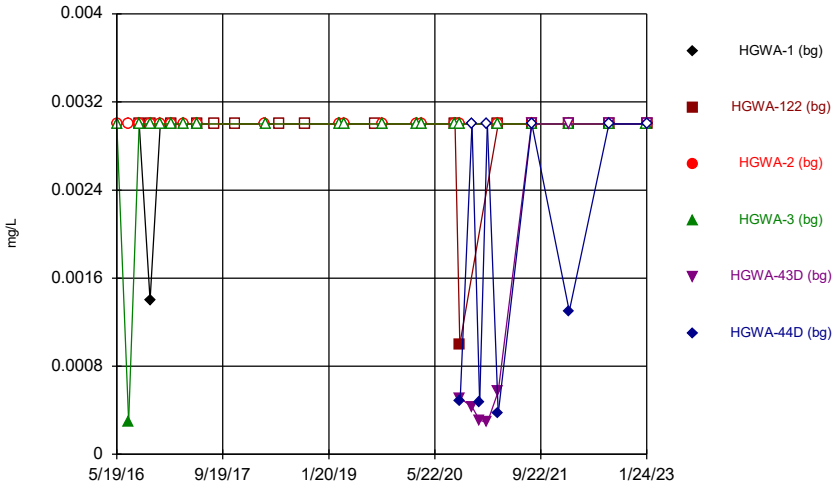
Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 5/17/2023, 2:56 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	HGWC-120	0.003	0.0018	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-121A	0.003	0.0016	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-124	0.003	0.0018	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-125	0.003	0.00061	0.006	No	12	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-126	0.003	0.00043	0.006	No	12	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-120	0.005	0.001	0.01	No	14	64.29	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-121A	0.005	0.0014	0.01	No	14	78.57	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-124	0.005	0.0006	0.01	No	14	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-125	0.005	0.0014	0.01	No	11	72.73	None	No	0.006	NP (NDs)
Arsenic (mg/L)	HGWC-126	0.005	0.00091	0.01	No	11	72.73	None	No	0.006	NP (NDs)
Barium (mg/L)	HGWC-120	0.05167	0.04678	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-121A	0.07926	0.06412	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-124	0.07253	0.0675	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-125	0.04591	0.04093	2	No	12	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-126	0.2546	0.2288	2	No	12	0	None	No	0.01	Param.
Chromium (mg/L)	HGWC-120	0.005	0.0015	0.1	No	18	83.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-121A	0.005	0.0005	0.1	No	18	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-124	0.005	0.00051	0.1	No	18	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-125	0.005	0.00058	0.1	No	12	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-126	0.005	0.0014	0.1	No	12	83.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-120	0.004529	0.003071	0.038	No	18	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	HGWC-121A	0.005	0.0005	0.038	No	18	83.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-125	0.01236	0.007892	0.038	No	12	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-120	1.08	0.6563	5	No	17	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-121A	1.142	0.5104	5	No	17	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-124	0.8781	0.5557	5	No	17	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-125	1.386	0.6754	5	No	11	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-126	1.731	1.042	5	No	11	0	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-120	1	0.37	4	No	21	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-121A	0.2	0.14	4	No	19	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-124	0.11	0.074	4	No	19	36.84	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-125	0.1691	0.1193	4	No	12	0	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-126	0.509	0.441	4	No	12	0	None	No	0.01	Param.
Lead (mg/L)	HGWC-120	0.001	0.0002	0.015	No	18	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-121A	0.001	0.00036	0.015	No	18	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-124	0.001	0.00008	0.015	No	18	72.22	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-125	0.001	0.000047	0.015	No	12	58.33	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-126	0.001	0.000045	0.015	No	12	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	HGWC-120	0.0337	0.023	0.064	No	18	0	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-121A	0.008881	0.007574	0.064	No	18	0	None	No	0.01	Param.
Lithium (mg/L)	HGWC-124	0.03	0.0011	0.064	No	18	27.78	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-125	0.005635	0.003848	0.064	No	12	0	None	No	0.01	Param.
Lithium (mg/L)	HGWC-126	0.004194	0.003306	0.064	No	12	0	None	No	0.01	Param.
Mercury (mg/L)	HGWC-120	0.0002	0.00007	0.002	No	14	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-124	0.0002	0.000051	0.002	No	14	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	HGWC-120	0.03701	0.02674	0.1	No	18	0	None	No	0.01	Param.
Molybdenum (mg/L)	HGWC-124	0.01	0.00091	0.1	No	18	38.89	None	No	0.01	NP (normality)
Molybdenum (mg/L)	HGWC-125	0.009932	0.0005415	0.1	No	12	25	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	HGWC-120	0.005	0.002	0.05	No	14	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-121A	0.005	0.0011	0.05	No	14	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-124	0.005	0.0014	0.05	No	14	92.86	None	No	0.01	NP (NDs)

FIGURE A.

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

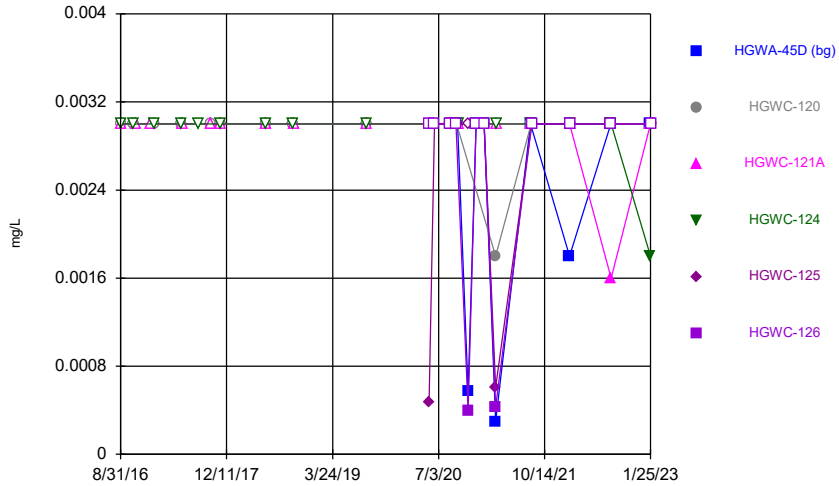
Time Series



Constituent: Antimony Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Antimony Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

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Hollow symbols indicate censored values.

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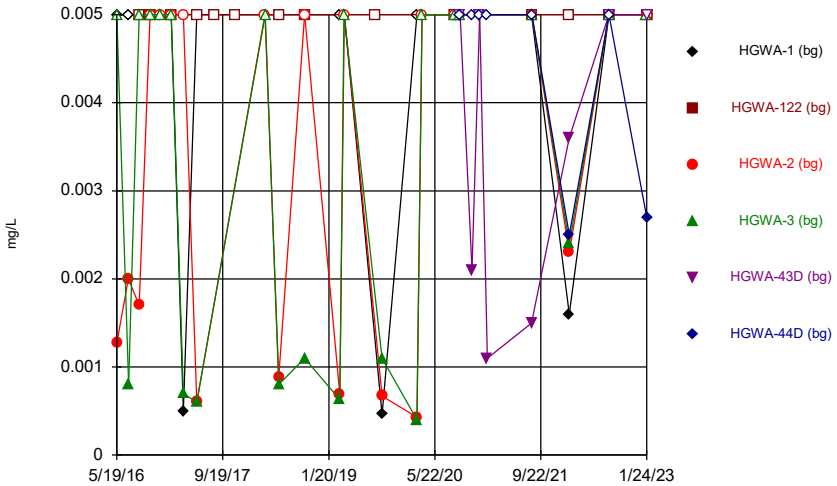

Constituent: Arsenic Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

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Hollow symbols indicate censored values.

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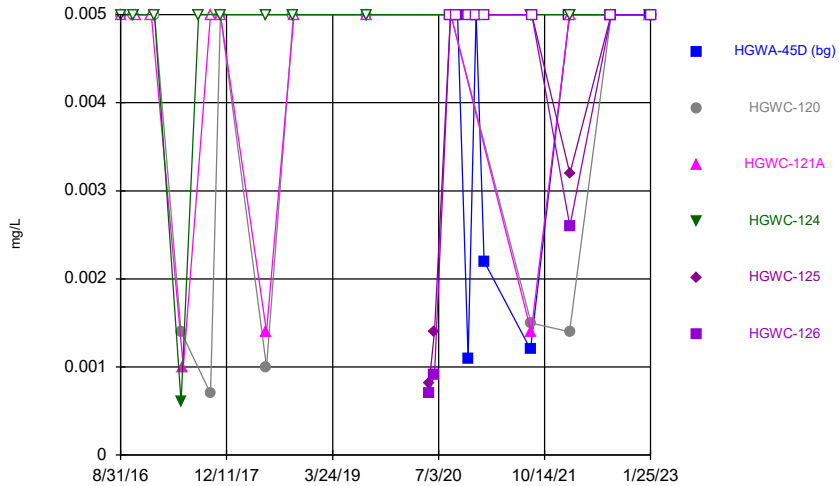

Constituent: Arsenic Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

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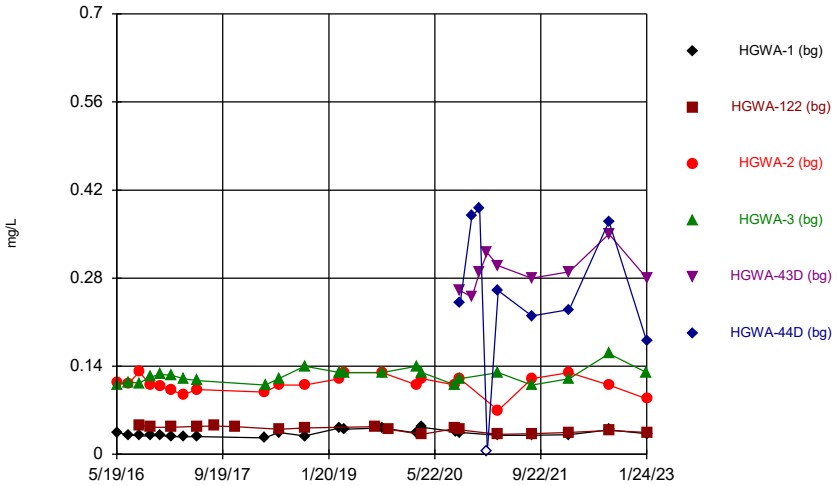
Hollow symbols indicate censored values.

Time Series



Constituent: Barium Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

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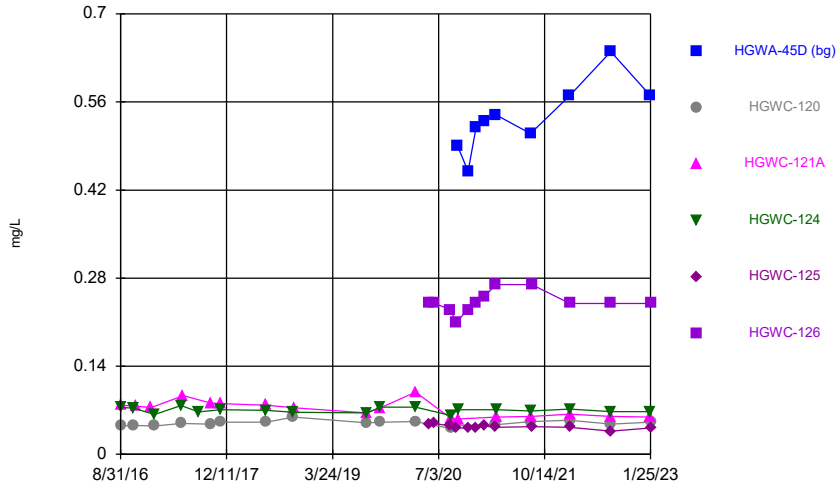
Time Series



Constituent: Barium Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

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Hollow symbols indicate censored values.

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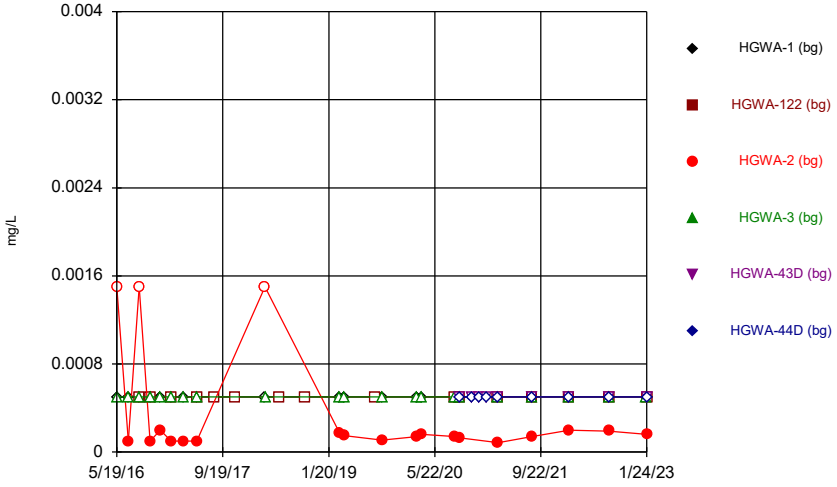

Constituent: Beryllium Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

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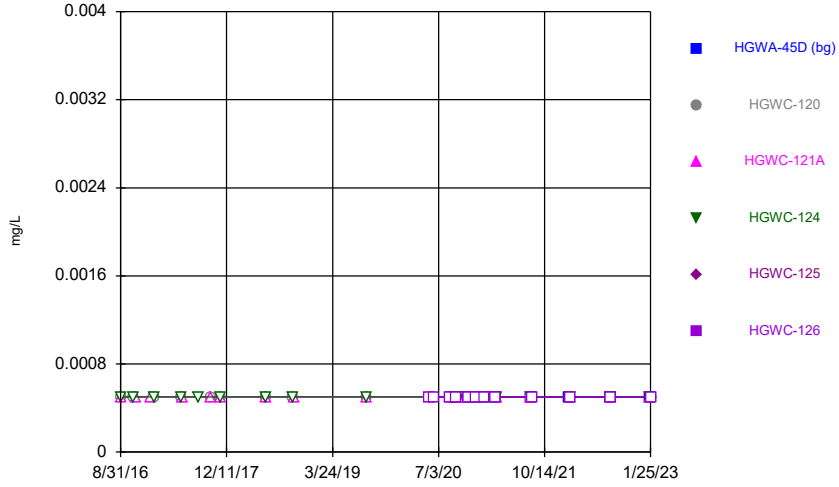
Hollow symbols indicate censored values.

Time Series



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Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
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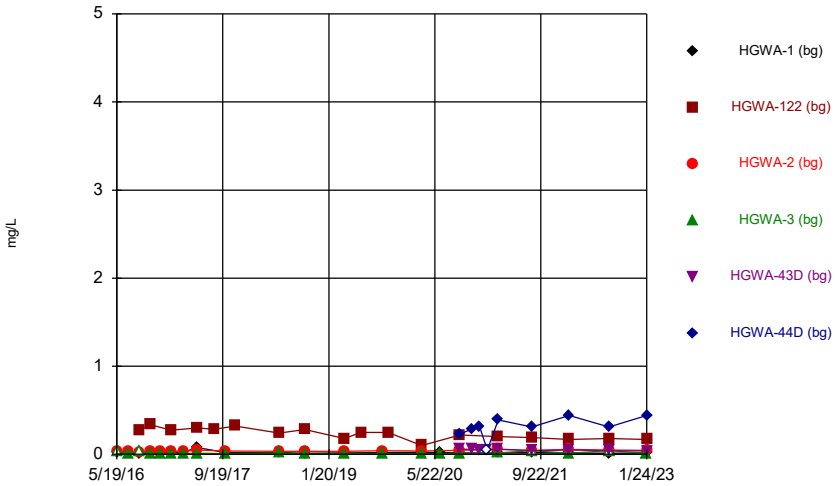
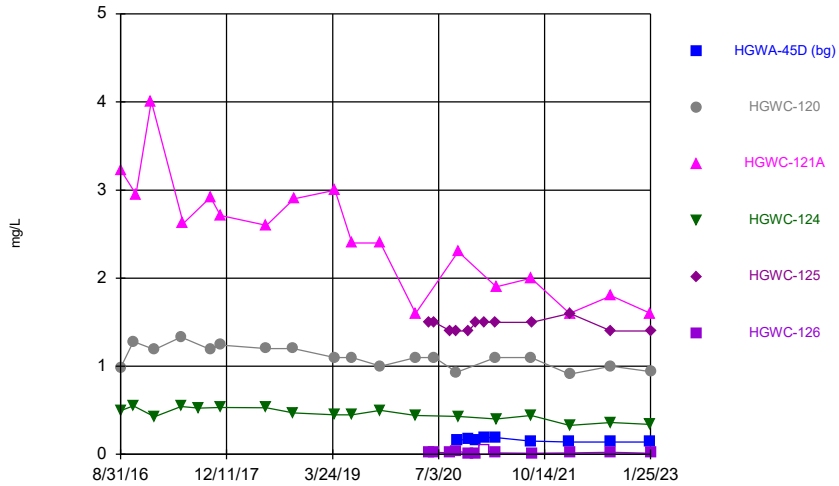


Constituent: Boron Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

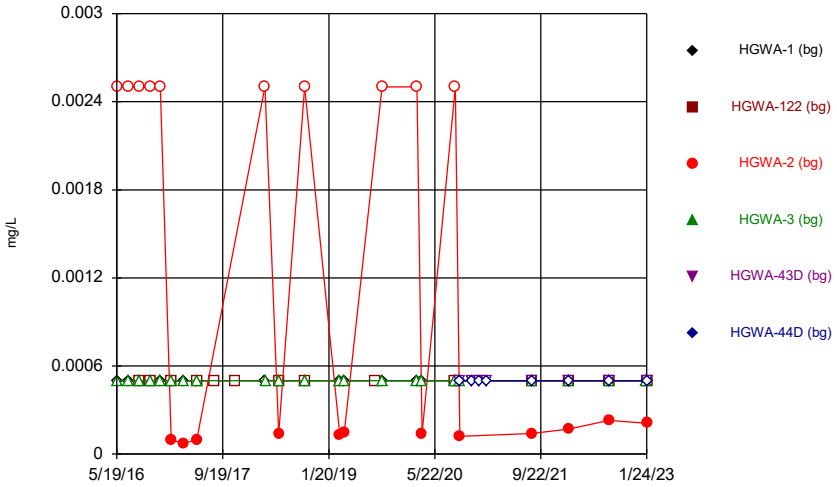
Time Series



Constituent: Boron Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

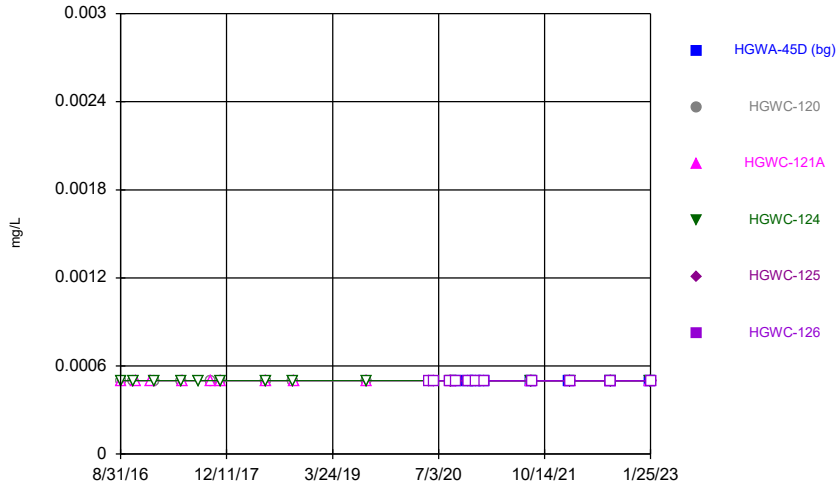
Time Series



Constituent: Cadmium Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

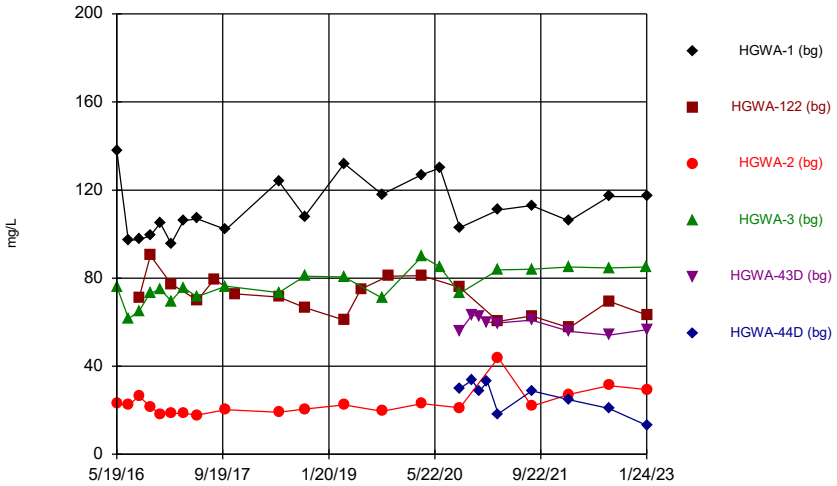
Time Series



Constituent: Cadmium Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

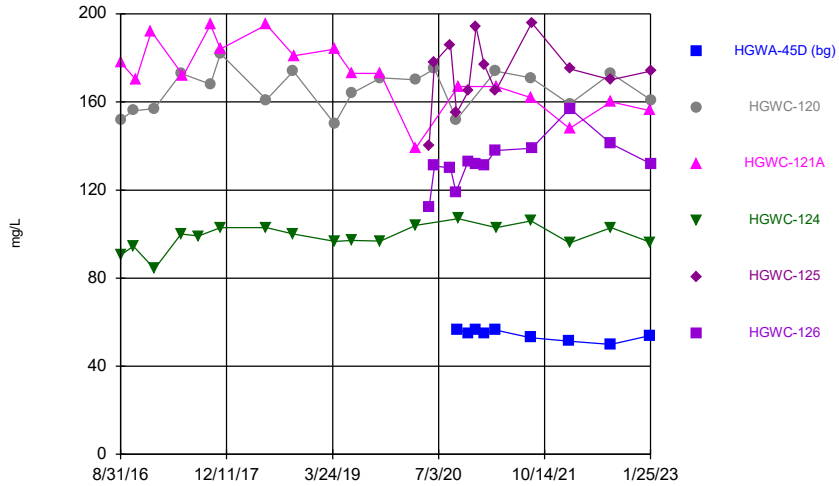
Time Series



Constituent: Calcium Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

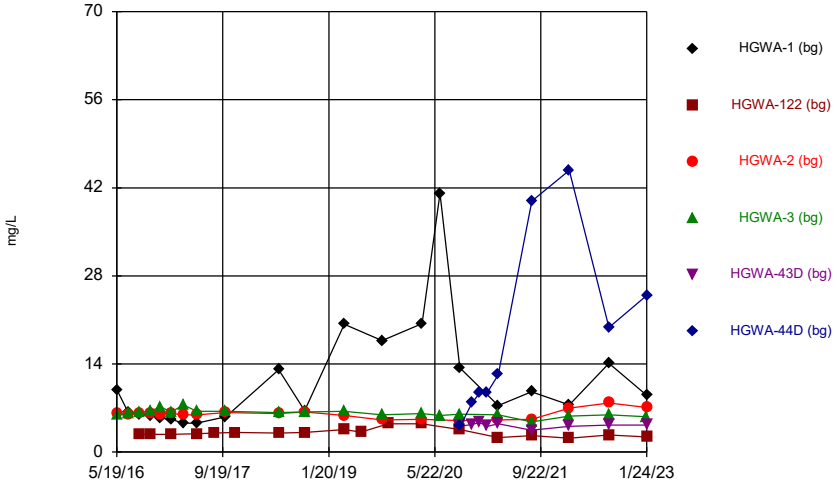
Time Series



Constituent: Calcium Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

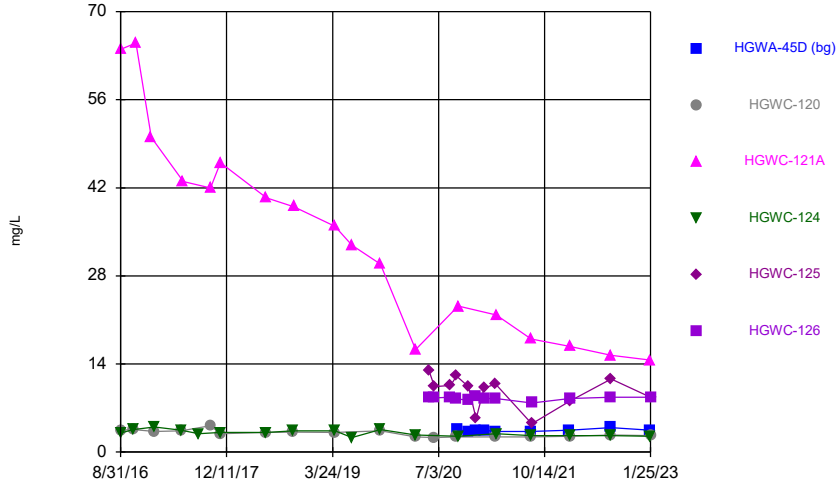
Time Series



Constituent: Chloride Analysis Run 5/16/2023 2:17 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

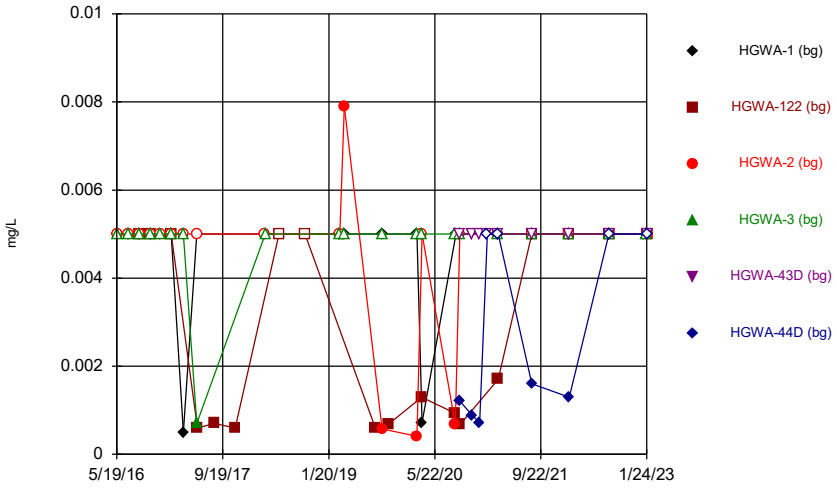
Time Series



Constituent: Chloride Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

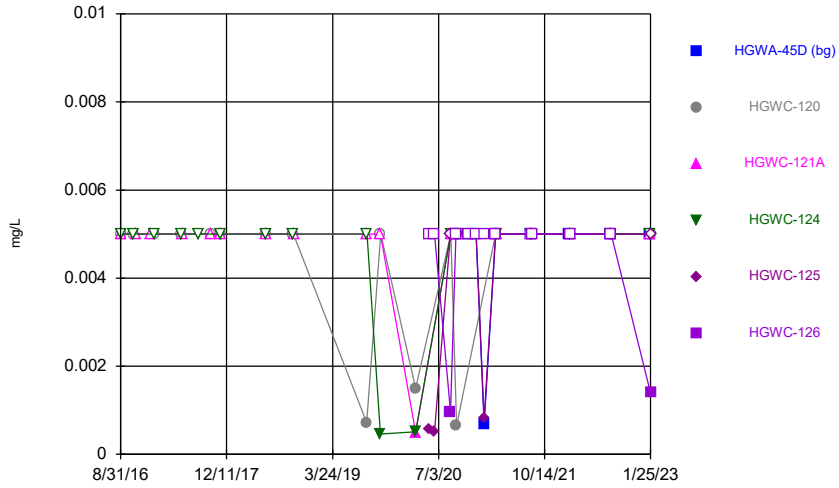
Time Series



Constituent: Chromium Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

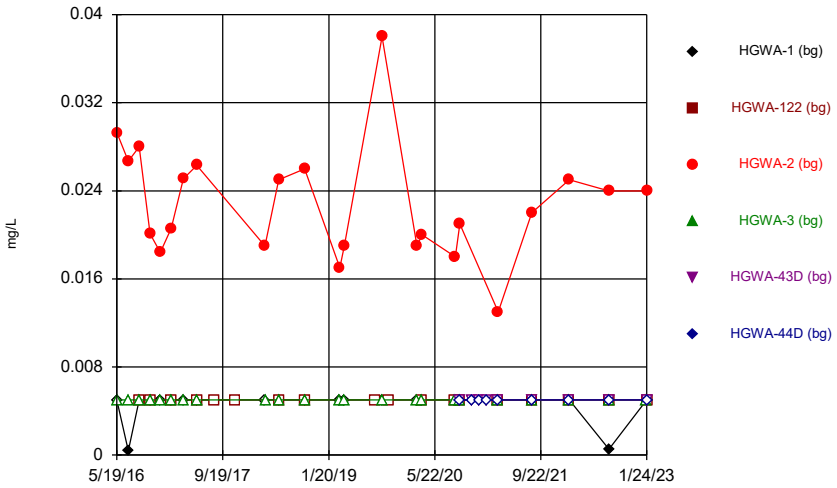
Time Series



Constituent: Chromium Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

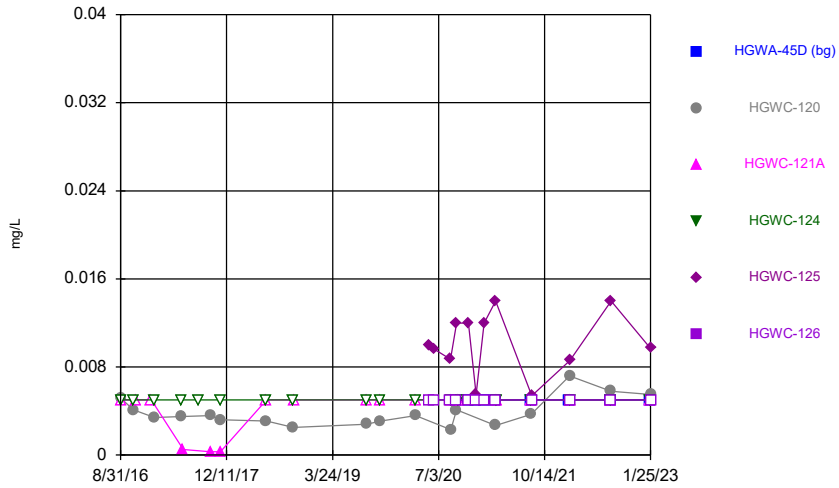
Time Series



Constituent: Cobalt Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

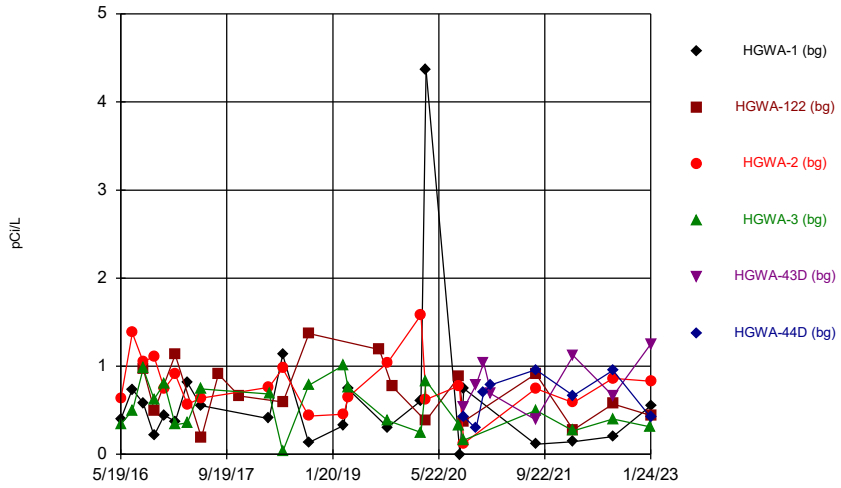
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

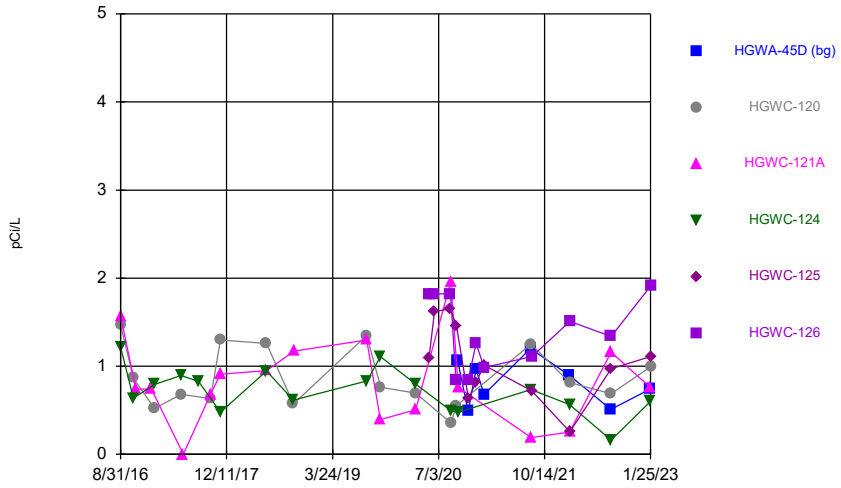
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

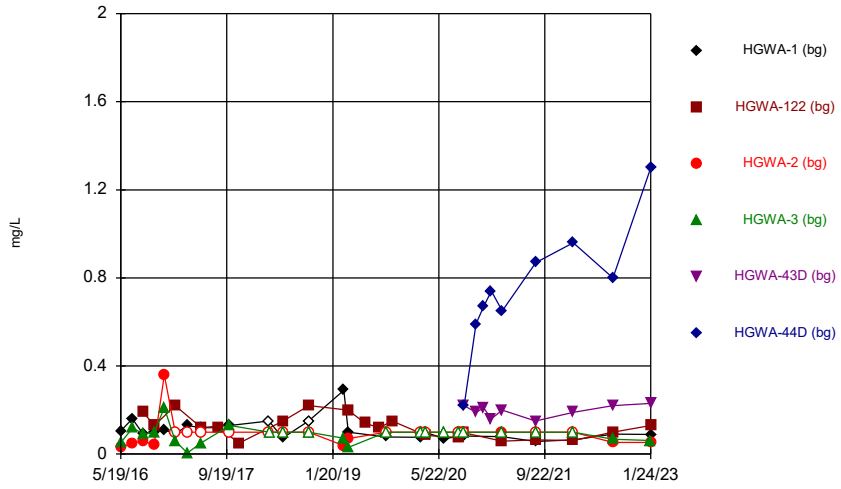
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

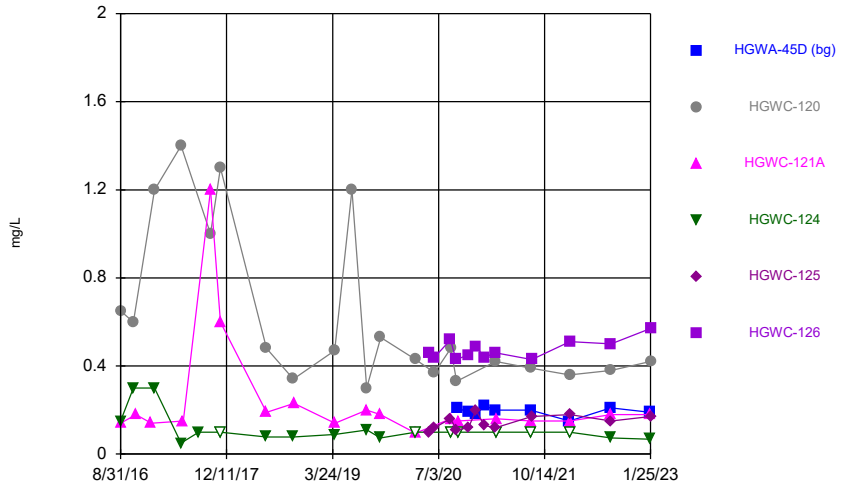
Time Series



Constituent: Fluoride Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

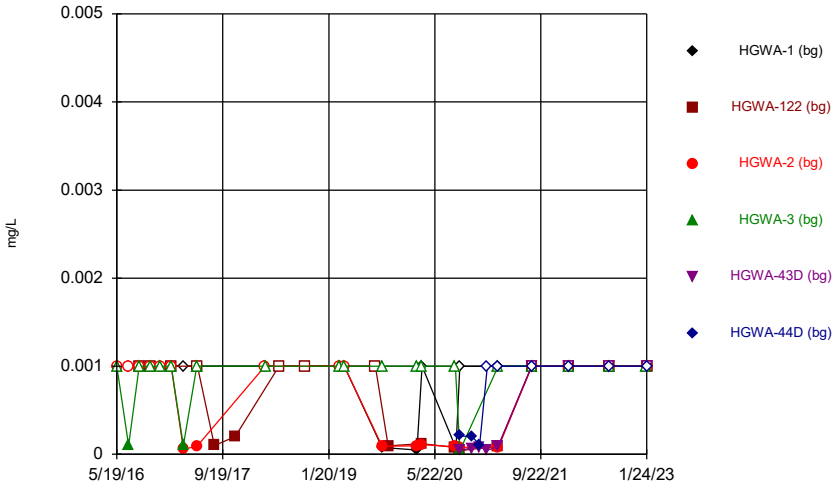
Time Series



Constituent: Fluoride Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

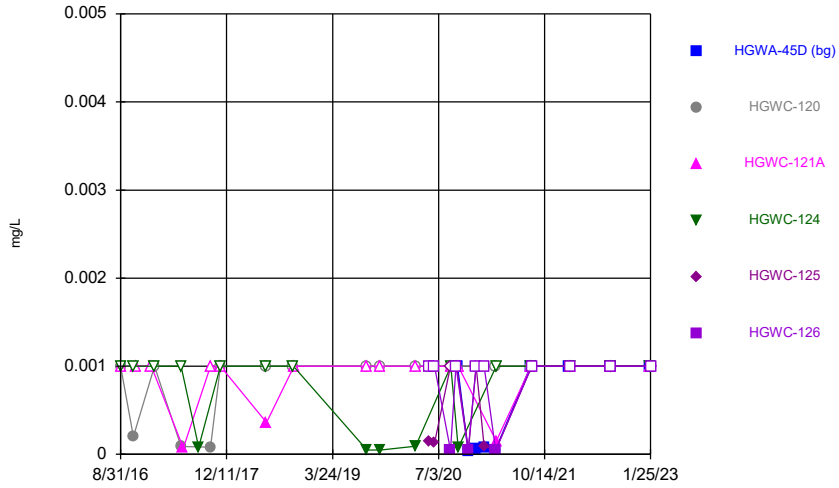
Time Series



Constituent: Lead Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

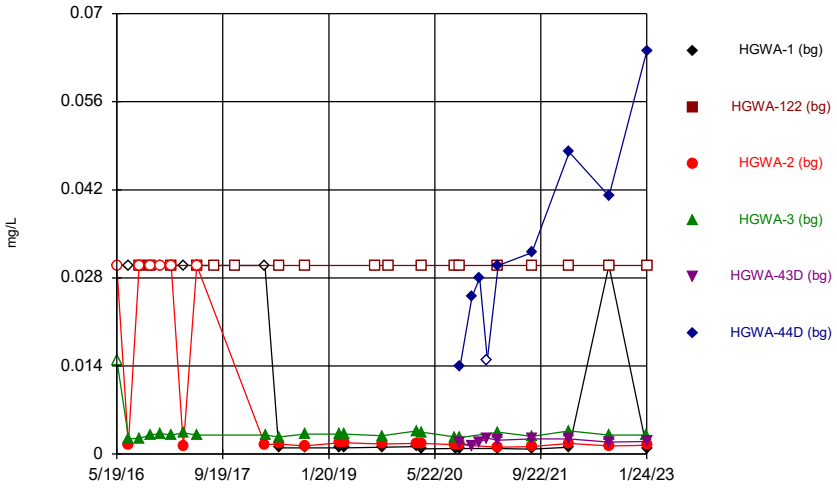
Time Series



Constituent: Lead Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

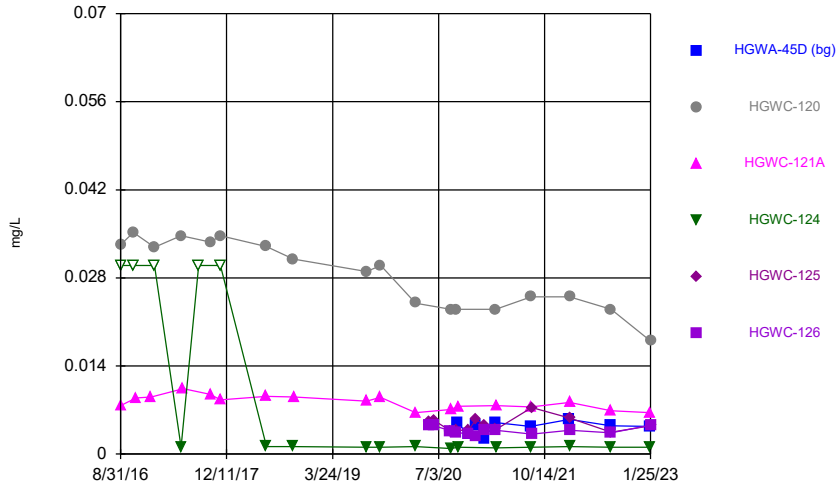
Time Series



Constituent: Lithium Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

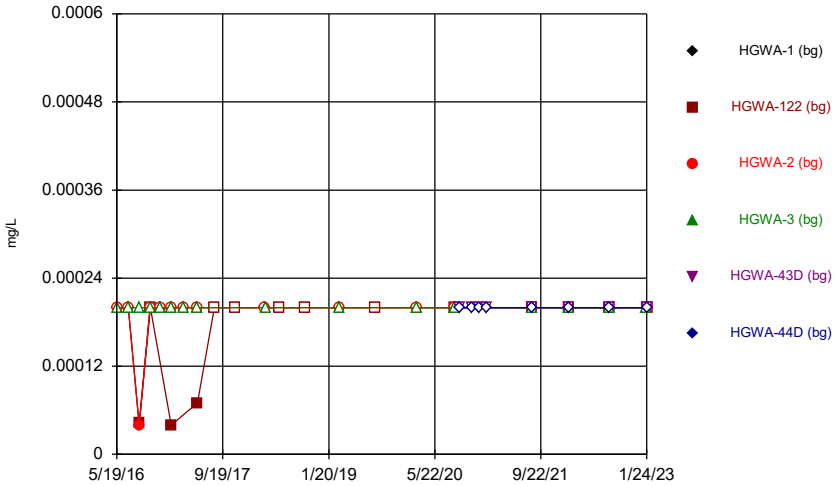
Time Series



Constituent: Lithium Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

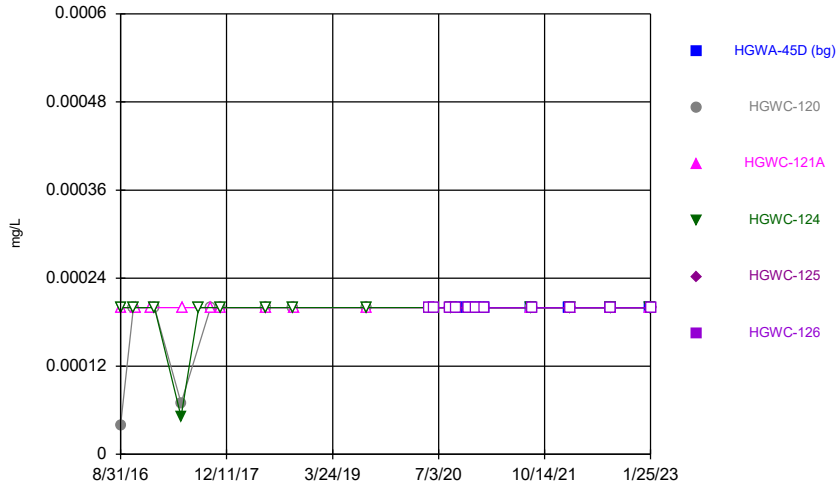
Time Series



Constituent: Mercury Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

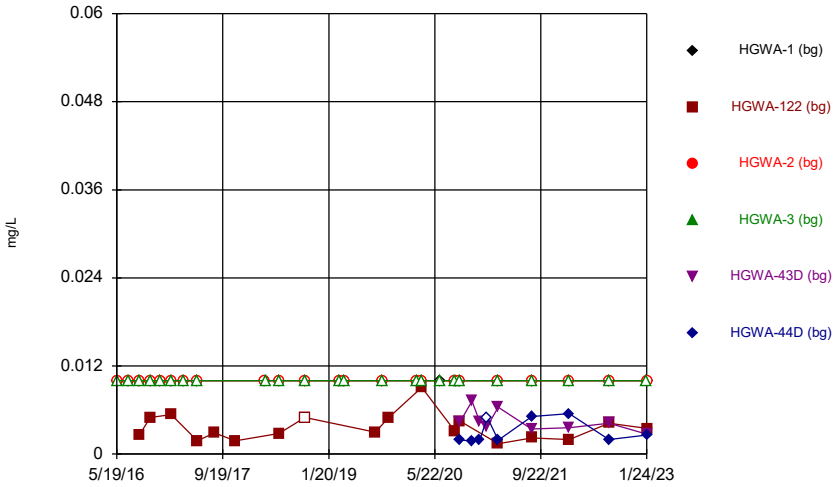
Time Series



Constituent: Mercury Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

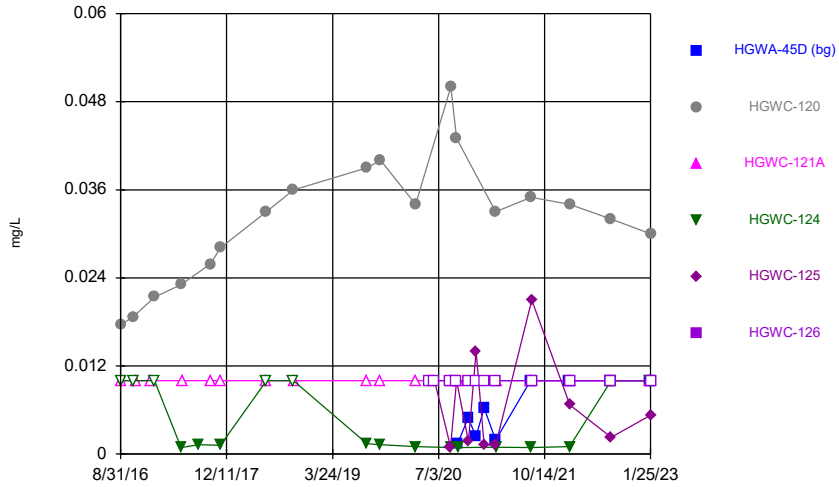
Time Series



Constituent: Molybdenum Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

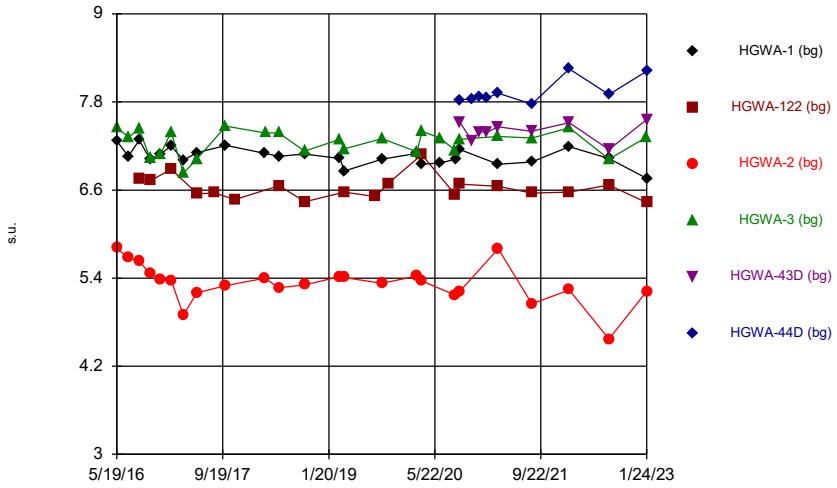
Time Series



Constituent: Molybdenum Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

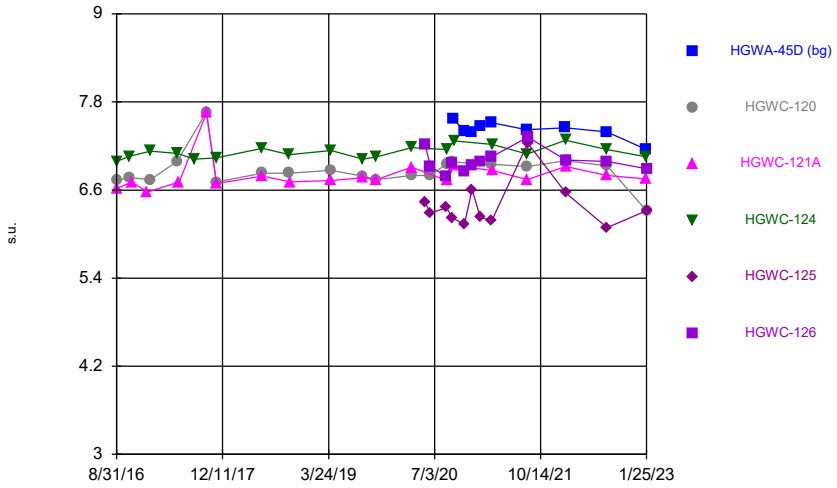
Time Series



Constituent: pH Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

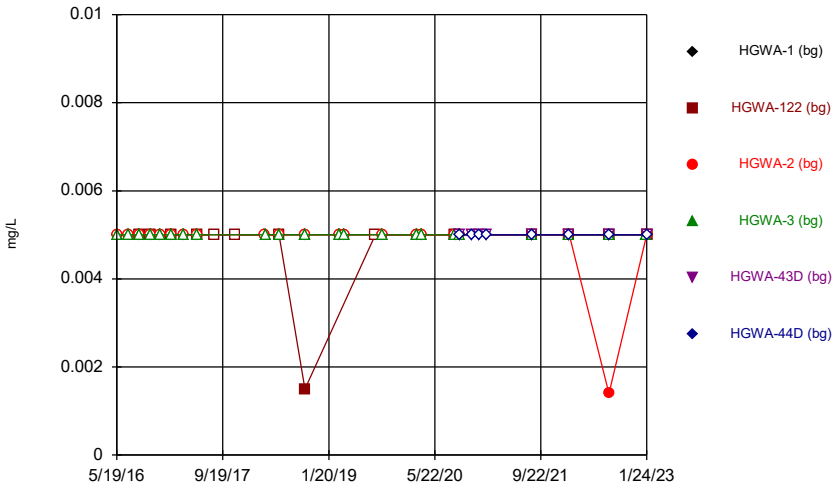
Time Series



Constituent: pH Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

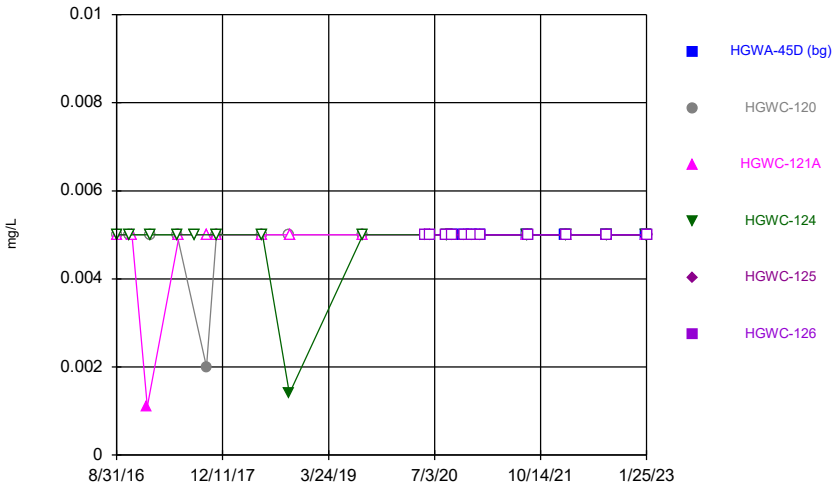
Time Series



Constituent: Selenium Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

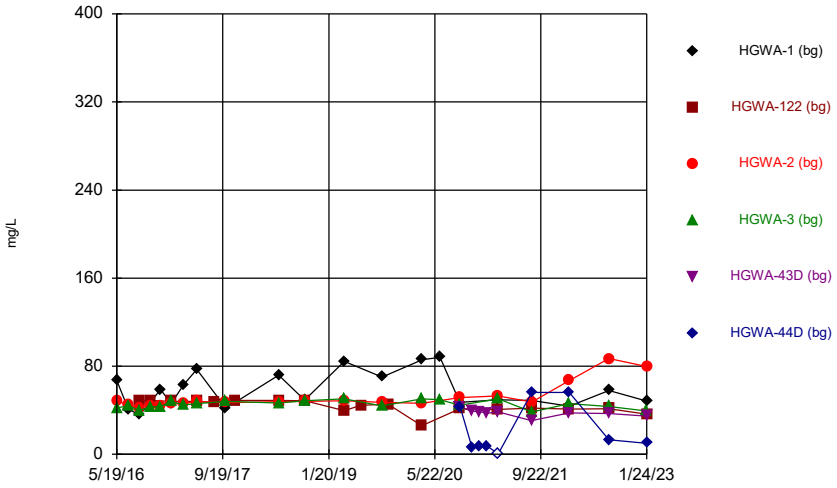
Time Series



Constituent: Selenium Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

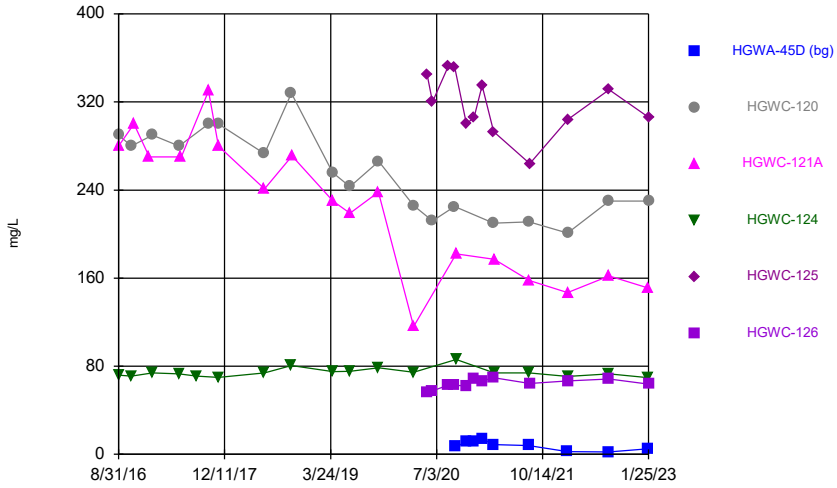
Time Series



Constituent: Sulfate Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

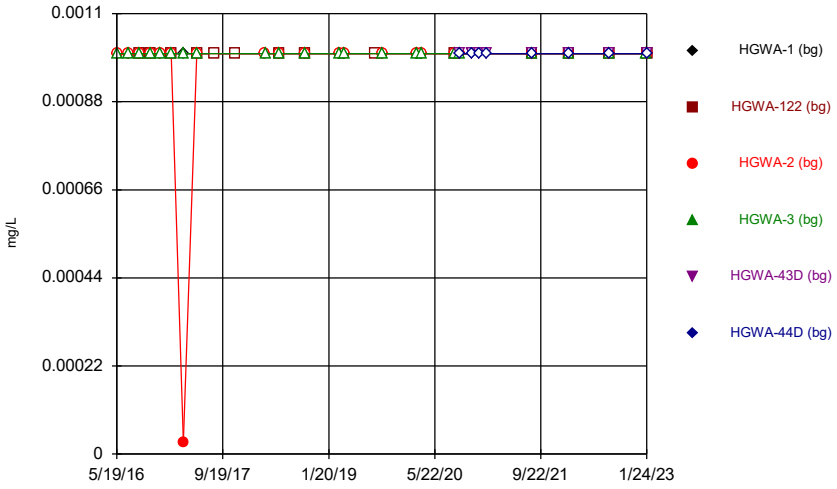
Time Series



Constituent: Sulfate Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

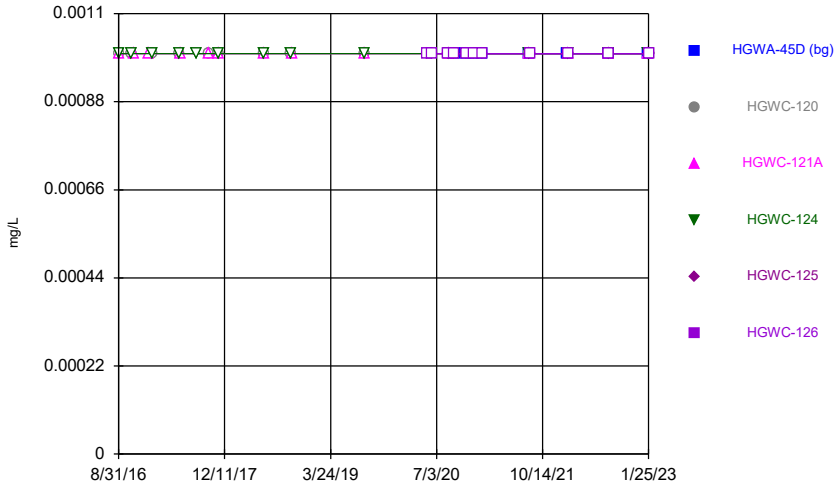
Time Series



Constituent: Thallium Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

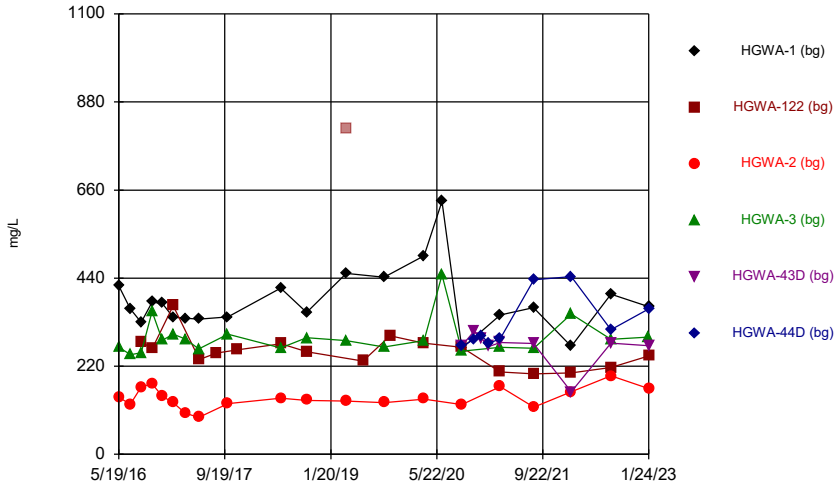
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

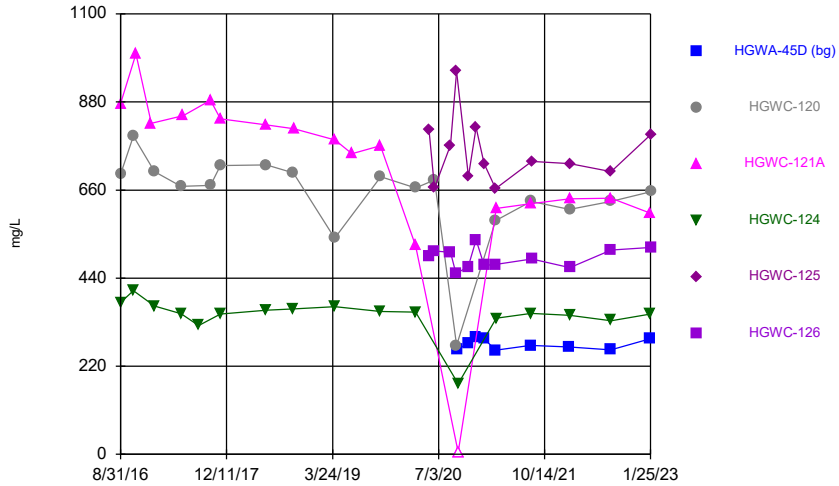
Time Series



Constituent: Total Dissolved Solids Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/16/2023 2:18 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.003		<0.003	<0.003		
7/11/2016	<0.003		<0.003			
7/12/2016				0.0003 (J)		
8/30/2016	<0.003	<0.003	<0.003	<0.003		
10/19/2016	0.0014 (J)		<0.003	<0.003		
10/20/2016		<0.003				
12/6/2016	<0.003		<0.003	<0.003		
1/24/2017	<0.003		<0.003	<0.003		
1/25/2017		<0.003				
3/21/2017	<0.003		<0.003	<0.003		
5/22/2017	<0.003		<0.003	<0.003		
5/25/2017		<0.003				
8/11/2017		<0.003				
11/15/2017		<0.003				
4/2/2018	<0.003		<0.003			
4/3/2018				<0.003		
6/5/2018		<0.003				
10/2/2018		<0.003				
3/12/2019	<0.003		<0.003	<0.003		
4/1/2019				<0.003		
4/2/2019	<0.003		<0.003			
8/22/2019		<0.003				
9/23/2019	<0.003		<0.003	<0.003		
3/2/2020	<0.003		<0.003	<0.003		
3/25/2020	<0.003		<0.003	<0.003		
8/24/2020		<0.003				
8/25/2020			<0.003	<0.003		
8/28/2020	<0.003					
9/15/2020	<0.003	0.001 (J)	<0.003	<0.003		
9/16/2020					0.00051 (J)	0.00049 (J)
11/10/2020					0.00043 (J)	<0.003
12/15/2020					0.00031 (J)	0.00047 (J)
1/19/2021					0.00029 (J)	<0.003
3/10/2021	<0.003					0.00037 (J)
3/11/2021		<0.003	<0.003	<0.003	0.00057 (J)	
8/11/2021	<0.003				<0.003	
8/12/2021			<0.003	<0.003		
8/13/2021		<0.003				<0.003
2/1/2022	<0.003	<0.003	<0.003	<0.003	<0.003	0.0013 (J)
8/2/2022	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1/23/2023				<0.003		
1/24/2023	<0.003	<0.003	<0.003		<0.003	<0.003

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Antimony (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		<0.003	<0.003	<0.003		
10/26/2016		<0.003		<0.003		
11/7/2016			<0.003			
1/13/2017			<0.003			
1/27/2017		<0.003		<0.003		
5/25/2017		<0.003		<0.003		
6/3/2017			<0.003			
8/11/2017				<0.003		
10/2/2017		<0.003	<0.003			
11/15/2017		<0.003	<0.003	<0.003		
6/5/2018		<0.003	<0.003	<0.003		
10/2/2018		<0.003		<0.003		
10/5/2018			<0.003			
8/22/2019		<0.003	<0.003			
8/23/2019				<0.003		
5/22/2020					0.00047 (J)	<0.003
6/16/2020					<0.003	<0.003
8/25/2020					<0.003	<0.003
8/26/2020		<0.003	<0.003			
8/27/2020				<0.003		
9/18/2020						<0.003
9/21/2020		<0.003			<0.003	
9/25/2020	<0.003					
9/28/2020			<0.003	<0.003		
11/11/2020	0.00057 (J)					0.0004 (J)
11/12/2020					<0.003	
12/16/2020	<0.003				<0.003	<0.003
1/20/2021	<0.003				<0.003	<0.003
3/12/2021	0.0003 (J)	0.0018 (J)			0.00061 (J)	0.00043 (J)
3/15/2021			<0.003	<0.003		
8/13/2021	<0.003					
8/16/2021		<0.003	<0.003	<0.003		
8/19/2021					<0.003	<0.003
2/1/2022	0.0018 (J)					
2/2/2022		<0.003	<0.003	<0.003		
2/3/2022					<0.003	<0.003
8/2/2022	<0.003					
8/4/2022		<0.003	0.0016 (J)	<0.003	<0.003	<0.003
1/24/2023	<0.003		<0.003	0.0018 (J)		
1/25/2023		<0.003			<0.003	<0.003

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.005		0.00127 (J)	<0.005		
7/11/2016	<0.005		0.002 (J)			
7/12/2016				0.0008 (J)		
8/30/2016	<0.005	<0.005	0.0017 (J)	<0.005		
10/19/2016	<0.005		<0.005	<0.005		
10/20/2016		<0.005				
12/6/2016	<0.005		<0.005	<0.005		
1/24/2017	<0.005		<0.005	<0.005		
1/25/2017		<0.005				
3/21/2017	0.0005 (J)		<0.005	0.0007 (J)		
5/22/2017	<0.005		0.0006 (J)	0.0006 (J)		
5/25/2017		<0.005				
8/11/2017		<0.005				
11/15/2017		<0.005				
4/2/2018	<0.005		<0.005			
4/3/2018				<0.005		
6/4/2018	<0.005		0.00088 (J)	0.0008 (J)		
6/5/2018		<0.005				
10/1/2018	<0.005		<0.005	0.0011 (J)		
10/2/2018		<0.005				
3/12/2019	<0.005		0.00069 (J)	0.00063 (J)		
4/1/2019				<0.005		
4/2/2019	<0.005		<0.005			
8/22/2019		<0.005				
9/23/2019	0.00046 (J)		0.00067 (J)	0.0011 (J)		
3/2/2020	<0.005		0.00043 (J)	0.0004 (J)		
3/25/2020	<0.005		<0.005	<0.005		
8/24/2020		<0.005				
8/25/2020			<0.005	<0.005		
8/28/2020	<0.005					
9/15/2020	<0.005		<0.005	<0.005		
9/16/2020					<0.005	<0.005
11/10/2020					0.0021 (J)	<0.005
12/15/2020					<0.005	<0.005
1/19/2021					0.0011 (J)	<0.005
8/11/2021	<0.005				0.0015 (J)	
8/12/2021			<0.005	<0.005		
8/13/2021		<0.005				<0.005
2/1/2022	0.0016 (J)	<0.005	0.0023 (J)	0.0024 (J)	0.0036 (J)	0.0025 (J)
8/2/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/23/2023				<0.005		
1/24/2023	<0.005	<0.005	<0.005		<0.005	0.0027 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Arsenic (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		<0.005	<0.005	<0.005		
10/26/2016		<0.005		<0.005		
11/7/2016			<0.005			
1/13/2017			<0.005			
1/27/2017		<0.005		<0.005		
5/25/2017		0.0014 (J)		0.0006 (J)		
6/3/2017			0.001 (J)			
8/11/2017				<0.005		
10/2/2017		0.0007 (J)	<0.005			
11/15/2017		<0.005	<0.005	<0.005		
6/5/2018		0.001 (J)	0.0014 (J)	<0.005		
10/2/2018		<0.005		<0.005		
10/5/2018			<0.005			
8/22/2019		<0.005	<0.005			
8/23/2019				<0.005		
5/22/2020					0.00081 (J)	0.00071 (J)
6/16/2020					0.0014 (J)	0.00091 (J)
8/25/2020					<0.005	<0.005
8/26/2020		<0.005	<0.005			
8/27/2020				<0.005		
9/18/2020						<0.005
9/21/2020					<0.005	
9/25/2020	<0.005					
11/11/2020	0.0011 (J)					<0.005
11/12/2020					<0.005	
12/16/2020	<0.005				<0.005	<0.005
1/20/2021	0.0022 (J)				<0.005	<0.005
8/13/2021	0.0012 (J)					
8/16/2021		0.0015 (J)	0.0014 (J)	<0.005		
8/19/2021					<0.005	<0.005
2/1/2022	<0.005					
2/2/2022		0.0014 (J)	<0.005	<0.005		
2/3/2022					0.0032 (J)	0.0026 (J)
8/2/2022	<0.005					
8/4/2022		<0.005	<0.005	<0.005	<0.005	<0.005
1/24/2023	<0.005		<0.005	<0.005		
1/25/2023		<0.005			<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	0.0346		0.114	0.111		
7/11/2016	0.0311		0.112			
7/12/2016				0.115		
8/30/2016	0.0293	0.0463	0.131	0.113		
10/19/2016	0.0293		0.111	0.123		
10/20/2016		0.0431				
12/6/2016	0.0304		0.108	0.127		
1/24/2017	0.028		0.102	0.126		
1/25/2017		0.0429				
3/21/2017	0.0275		0.095	0.12		
5/22/2017	0.0281		0.103	0.117		
5/25/2017		0.0447				
8/11/2017		0.0451				
11/15/2017		0.0439				
4/2/2018	0.026		0.099			
4/3/2018				0.11		
6/4/2018	0.035		0.11	0.12		
6/5/2018		0.04				
10/1/2018	0.029		0.11	0.14		
10/2/2018		0.042				
3/12/2019	0.042		0.12	0.13		
4/1/2019				0.13		
4/2/2019	0.04		0.13			
8/22/2019		0.044				
9/23/2019	0.042		0.13	0.13		
10/21/2019		0.04				
3/2/2020	0.034		0.11	0.14		
3/24/2020		0.032				
3/25/2020	0.043		0.12	0.13		
8/24/2020		0.041				
8/25/2020			0.11	0.11		
8/28/2020	0.036					
9/15/2020	0.035	0.039	0.12	0.12		
9/16/2020					0.26	0.24
11/10/2020					0.25	0.38
12/15/2020					0.29	0.39
1/19/2021					0.32	<0.01
3/10/2021	0.03					0.26
3/11/2021		0.032	0.07	0.13	0.3	
8/11/2021	0.03				0.28	
8/12/2021			0.12	0.11		
8/13/2021		0.033				0.22
2/1/2022	0.031	0.035	0.13	0.12	0.29	0.23
8/2/2022	0.039	0.038	0.11	0.16	0.35	0.37
1/23/2023				0.13		
1/24/2023	0.033	0.035	0.088		0.28	0.18

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Barium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		0.045	0.0782	0.0744		
10/26/2016		0.0462		0.0735		
11/7/2016			0.0764			
1/13/2017			0.0744			
1/27/2017		0.0451		0.0632		
5/25/2017		0.0488		0.0773		
6/3/2017			0.0933			
8/11/2017				0.0672		
10/2/2017		0.0479	0.0815			
11/15/2017		0.051	0.0807	0.0707		
6/5/2018		0.051	0.078	0.07		
10/2/2018		0.059		0.067		
10/5/2018			0.074			
8/22/2019		0.05	0.066			
8/23/2019				0.066		
10/21/2019			0.074	0.075		
10/22/2019		0.051				
3/24/2020				0.075		
3/25/2020		0.052	0.099			
5/22/2020					0.048	0.24
6/16/2020					0.049	0.24
8/25/2020					0.045	0.23
8/26/2020		0.041	0.057			
8/27/2020				0.062		
9/18/2020						0.21
9/21/2020		0.046			0.042	
9/25/2020	0.49					
9/28/2020			0.056	0.071		
11/11/2020	0.45					0.23
11/12/2020					0.042	
12/16/2020	0.52				0.041	0.24
1/20/2021	0.53				0.045	0.25
3/12/2021	0.54	0.047			0.043	0.27
3/15/2021			0.059	0.071		
8/13/2021	0.51					
8/16/2021		0.052	0.06	0.069		
8/19/2021					0.044	0.27
2/1/2022	0.57					
2/2/2022		0.054	0.064	0.072		
2/3/2022					0.043	0.24
8/2/2022	0.64					
8/4/2022		0.048	0.06	0.068	0.037	0.24
1/24/2023	0.57		0.059	0.068		
1/25/2023		0.051			0.042	0.24

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.0005		<0.003	<0.0005		
7/11/2016	<0.0005		0.0001 (J)			
7/12/2016				<0.0005		
8/30/2016	<0.0005	<0.0005	<0.003	<0.0005		
10/19/2016	<0.0005		0.0001 (J)	<0.0005		
10/20/2016		<0.0005				
12/6/2016	<0.0005		0.0002 (J)	<0.0005		
1/24/2017	<0.0005		0.0001 (J)	<0.0005		
1/25/2017		<0.0005				
3/21/2017	<0.0005		0.0001 (J)	<0.0005		
5/22/2017	<0.0005		0.0001 (J)	<0.0005		
5/25/2017		<0.0005				
8/11/2017		<0.0005				
11/15/2017		<0.0005				
4/2/2018	<0.0005		<0.003			
4/3/2018				<0.0005		
6/5/2018		<0.0005				
10/2/2018		<0.0005				
3/12/2019	<0.0005		0.00017 (J)	<0.0005		
4/1/2019				<0.0005		
4/2/2019	<0.0005		0.00015 (J)			
8/22/2019		<0.0005				
9/23/2019	<0.0005		0.00011 (J)	<0.0005		
3/2/2020	<0.0005		0.00014 (J)	<0.0005		
3/25/2020	<0.0005		0.00016 (J)	<0.0005		
8/24/2020		<0.0005				
8/25/2020			0.00014 (J)	<0.0005		
8/28/2020	<0.0005					
9/15/2020	<0.0005	<0.0005	0.00013 (J)	<0.0005		
9/16/2020					<0.0005	<0.0005
11/10/2020					<0.0005	<0.0005
12/15/2020					<0.0005	<0.0005
1/19/2021					<0.0005	<0.0005
3/10/2021	<0.0005					<0.0005
3/11/2021		<0.0005	8.6E-05 (J)	<0.0005	<0.0005	
8/11/2021	<0.0005				<0.0005	
8/12/2021			0.00014 (J)	<0.0005		
8/13/2021		<0.0005				<0.0005
2/1/2022	<0.0005	<0.0005	0.0002 (J)	<0.0005	<0.0005	<0.0005
8/2/2022	<0.0005	<0.0005	0.00019 (J)	<0.0005	<0.0005	<0.0005
1/23/2023				<0.0005		
1/24/2023	<0.0005	<0.0005	0.00016 (J)		<0.0005	<0.0005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Beryllium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		<0.0005	<0.0005	<0.0005		
10/26/2016		<0.0005		<0.0005		
11/7/2016			<0.0005			
1/13/2017			<0.0005			
1/27/2017		<0.0005		<0.0005		
5/25/2017		<0.0005		<0.0005		
6/3/2017			<0.0005			
8/11/2017				<0.0005		
10/2/2017		<0.0005	<0.0005			
11/15/2017		<0.0005	<0.0005	<0.0005		
6/5/2018		<0.0005	<0.0005	<0.0005		
10/2/2018		<0.0005		<0.0005		
10/5/2018			<0.0005			
8/22/2019		<0.0005	<0.0005			
8/23/2019				<0.0005		
5/22/2020					<0.0005	<0.0005
6/16/2020					<0.0005	<0.0005
8/25/2020					<0.0005	<0.0005
8/26/2020		<0.0005	<0.0005			
8/27/2020				<0.0005		
9/18/2020						<0.0005
9/21/2020		<0.0005			<0.0005	
9/25/2020	<0.0005					
9/28/2020			<0.0005	<0.0005		
11/11/2020	<0.0005					<0.0005
11/12/2020					<0.0005	
12/16/2020	<0.0005				<0.0005	<0.0005
1/20/2021	<0.0005				<0.0005	<0.0005
3/12/2021	<0.0005	<0.0005			<0.0005	<0.0005
3/15/2021			<0.0005	<0.0005		
8/13/2021	<0.0005					
8/16/2021		<0.0005	<0.0005	<0.0005		
8/19/2021					<0.0005	<0.0005
2/1/2022	<0.0005					
2/2/2022		<0.0005	<0.0005	<0.0005		
2/3/2022					<0.0005	<0.0005
8/2/2022	<0.0005					
8/4/2022		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/24/2023	<0.0005		<0.0005	<0.0005		
1/25/2023		<0.0005			<0.0005	<0.0005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	0.0214 (J)		0.0321 (J)	<0.04		
7/11/2016	0.0142 (J)		0.0337 (J)			
7/12/2016				0.0074 (J)		
8/30/2016	0.0074 (J)	0.277	0.0173 (J)	<0.04		
10/19/2016	0.0224 (J)		0.0341 (J)	0.0085 (J)		
10/20/2016		0.336				
12/6/2016	0.0211 (J)		0.0326 (J)	0.0085 (J)		
1/24/2017	0.0165 (J)		0.0365 (J)	0.01 (J)		
1/25/2017		0.274				
3/21/2017	0.0187 (J)		0.0349 (J)	0.0079 (J)		
5/22/2017	0.0782		0.0475	0.0131 (J)		
5/25/2017		0.298				
8/11/2017		0.285				
10/3/2017	0.0198 (J)		0.0386 (J)	0.0097 (J)		
11/15/2017		0.322				
6/4/2018	0.02 (J)		0.036 (J)	0.017 (J)		
6/5/2018		0.24				
10/1/2018	0.013 (J)		0.035 (J)	0.0061 (J)		
10/2/2018		0.28				
4/1/2019				0.0066 (J)		
4/2/2019	0.016 (J)	0.18	0.034 (J)			
6/18/2019		0.25				
9/23/2019	0.021 (J)		0.04 (J)	0.0081 (J)		
10/21/2019		0.25				
3/24/2020		0.1				
3/25/2020	0.025 (J)		0.039 (J)	0.0096 (J)		
6/16/2020	0.021 (J)			0.01 (J)		
9/15/2020	0.017 (J)	0.22	0.044 (J)	0.0071 (J)		
9/16/2020					0.061 (J)	0.23
11/10/2020					0.057 (J)	0.29
12/15/2020					0.052 (J)	0.31
1/19/2021					0.049 (J)	<0.1
3/10/2021	0.015 (J)					0.39
3/11/2021		0.2	0.056	0.015 (J)	0.06	
8/11/2021	0.02 (J)				0.042	
8/12/2021			0.044	<0.04		
8/13/2021		0.19				0.31
2/1/2022	0.016 (J)	0.17	0.056	0.011 (J)	0.05	0.44
8/2/2022	0.012 (J)	0.18	0.047	<0.04	0.043	0.31
1/23/2023				0.012 (J)		
1/24/2023	0.015 (J)	0.17	0.046		0.037 (J)	0.44

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Boron (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		0.981	3.23	0.494		
10/26/2016		1.28		0.55		
11/7/2016			2.95			
1/13/2017			4.01			
1/27/2017		1.19		0.428		
5/25/2017		1.33		0.544		
6/3/2017			2.62			
8/11/2017				0.524		
10/2/2017		1.19	2.92			
11/15/2017		1.24	2.71	0.531		
6/5/2018		1.2	2.6	0.53		
10/2/2018		1.2		0.47		
10/5/2018			2.9			
4/2/2019		1.1				
4/3/2019			3	0.45		
6/17/2019		1.1	2.4			
6/18/2019				0.45		
10/21/2019			2.4	0.5		
10/22/2019		1				
3/24/2020				0.44		
3/25/2020		1.1	1.6			
5/22/2020					1.5	0.026 (J)
6/15/2020		1.1				
6/16/2020					1.5	0.023 (J)
8/25/2020					1.4	0.016 (J)
9/18/2020						0.041 (J)
9/21/2020		0.93			1.4	
9/25/2020	0.16					
9/28/2020			2.3	0.43		
11/11/2020	0.17					0.009 (J)
11/12/2020					1.4	
12/16/2020	0.16				1.5	0.011 (J)
1/20/2021	0.19				1.5	<0.1
3/12/2021	0.19	1.1			1.5	0.016 (J)
3/15/2021			1.9	0.4		
8/13/2021	0.15					
8/16/2021		1.1	2	0.44		
8/19/2021					1.5	0.011 (J)
2/1/2022	0.14					
2/2/2022		0.91	1.6	0.33		
2/3/2022					1.6	0.016 (J)
8/2/2022	0.14					
8/4/2022		1	1.8	0.36	1.4	0.023 (J)
1/24/2023	0.14		1.6	0.34		
1/25/2023		0.94			1.4	0.014 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.0005		<0.0025	<0.0005		
7/11/2016	<0.0005		<0.0025			
7/12/2016				<0.0005		
8/30/2016	<0.0005	<0.0005	<0.0025	<0.0005		
10/19/2016	<0.0005		<0.0025	<0.0005		
10/20/2016		<0.0005				
12/6/2016	<0.0005		<0.0025	<0.0005		
1/24/2017	<0.0005		0.0001 (J)	<0.0005		
1/25/2017		<0.0005				
3/21/2017	<0.0005		7E-05 (J)	<0.0005		
5/22/2017	<0.0005		0.0001 (J)	<0.0005		
5/25/2017		<0.0005				
8/11/2017		<0.0005				
11/15/2017		<0.0005				
4/2/2018	<0.0005		<0.0025			
4/3/2018				<0.0005		
6/4/2018	<0.0005		0.00014 (J)	<0.0005		
6/5/2018		<0.0005				
10/1/2018	<0.0005		<0.0025	<0.0005		
10/2/2018		<0.0005				
3/12/2019	<0.0005		0.00013 (J)	<0.0005		
4/1/2019				<0.0005		
4/2/2019	<0.0005		0.00015 (J)			
8/22/2019		<0.0005				
9/23/2019	<0.0005		<0.0025	<0.0005		
3/2/2020	<0.0005		<0.0025	<0.0005		
3/25/2020	<0.0005		0.00014 (J)	<0.0005		
8/24/2020		<0.0005				
8/25/2020			<0.0025	<0.0005		
8/28/2020	<0.0005					
9/15/2020	<0.0005		0.00012 (J)	<0.0005		
9/16/2020					<0.0005	<0.0005
11/10/2020					<0.0005	<0.0005
12/15/2020					<0.0005	<0.0005
1/19/2021					<0.0005	<0.0005
8/11/2021	<0.0005				<0.0005	
8/12/2021			0.00014 (J)	<0.0005		
8/13/2021		<0.0005				<0.0005
2/1/2022	<0.0005	<0.0005	0.00017 (J)	<0.0005	<0.0005	<0.0005
8/2/2022	<0.0005	<0.0005	0.00023 (J)	<0.0005	<0.0005	<0.0005
1/23/2023				<0.0005		
1/24/2023	<0.0005	<0.0005	0.00021 (J)		<0.0005	<0.0005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cadmium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		<0.0005	<0.0005	<0.0005		
10/26/2016		<0.0005		<0.0005		
11/7/2016			<0.0005			
1/13/2017			<0.0005			
1/27/2017		<0.0005		<0.0005		
5/25/2017		<0.0005		<0.0005		
6/3/2017			<0.0005			
8/11/2017				<0.0005		
10/2/2017		<0.0005	<0.0005			
11/15/2017		<0.0005	<0.0005	<0.0005		
6/5/2018		<0.0005	<0.0005	<0.0005		
10/2/2018		<0.0005		<0.0005		
10/5/2018			<0.0005			
8/22/2019		<0.0005	<0.0005			
8/23/2019				<0.0005		
5/22/2020					<0.0005	<0.0005
6/16/2020					<0.0005	<0.0005
8/25/2020					<0.0005	<0.0005
8/26/2020		<0.0005	<0.0005			
8/27/2020				<0.0005		
9/18/2020						<0.0005
9/21/2020					<0.0005	
9/25/2020	<0.0005					
11/11/2020	<0.0005					<0.0005
11/12/2020					<0.0005	
12/16/2020	<0.0005				<0.0005	<0.0005
1/20/2021	<0.0005				<0.0005	<0.0005
8/13/2021	<0.0005					
8/16/2021		<0.0005	<0.0005	<0.0005		
8/19/2021					<0.0005	<0.0005
2/1/2022	<0.0005					
2/2/2022		<0.0005	<0.0005	<0.0005		
2/3/2022					<0.0005	<0.0005
8/2/2022	<0.0005					
8/4/2022		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/24/2023	<0.0005		<0.0005	<0.0005		
1/25/2023		<0.0005			<0.0005	<0.0005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	138		22.9	76.2		
7/11/2016	97.2		22.3			
7/12/2016				61.5		
8/30/2016	97.5	71.3	26.4	65.1		
10/19/2016	99.2		21.7	73.2		
10/20/2016		90.3				
12/6/2016	105		18.2	74.9		
1/24/2017	95.7		18.5	69.6		
1/25/2017		77.3				
3/21/2017	106		18.6	75.7		
5/22/2017	107		17.8	71.5		
5/25/2017		69.9				
8/11/2017		79.5				
10/3/2017	102		20.2	76.3		
11/15/2017		72.8				
6/4/2018	124		19.1	73.4		
6/5/2018		71.4				
10/1/2018	108		20.5 (J)	80.9		
10/2/2018		66.6				
4/1/2019				80.5		
4/2/2019	132	60.9	22.5 (J)			
6/18/2019		75				
9/23/2019	118		19.5	71		
10/21/2019		80.8				
3/24/2020		81.2				
3/25/2020	127		23	89.8		
6/16/2020	130			85.1		
9/15/2020	103	75.8	21.1	73.1		
9/16/2020					56	30
11/10/2020					63.3	33.6
12/15/2020					62.6	28.7
1/19/2021					60.1	33
3/10/2021	111					18.3
3/11/2021		60.4 (M1)	43.8	83.8	59.6	
8/11/2021	113				61	
8/12/2021			21.9	84		
8/13/2021		62.9				28.9
2/1/2022	106	57.5	27.2	85.1	55.9	24.8
8/2/2022	117	69.5	31.2	84.6	54.1	20.9
1/23/2023				85		
1/24/2023	117	63.3	29.4		56.6	13.2

Time Series

Constituent: Calcium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		152	178	90.4		
10/26/2016		156		94.5		
11/7/2016			170			
1/13/2017			192			
1/27/2017		157		84.2		
5/25/2017		173		100		
6/3/2017			172			
8/11/2017				99.1		
10/2/2017		168	195			
11/15/2017		182	184	103		
6/5/2018		161	195	103		
10/2/2018		174		100		
10/5/2018			181			
4/2/2019		150				
4/3/2019			184	96.7		
6/17/2019		164	173			
6/18/2019				97.1		
10/21/2019			173	96.9		
10/22/2019		171				
3/24/2020				104		
3/25/2020		170	139			
5/22/2020					140	112
6/15/2020		175				
6/16/2020					178	131
8/25/2020					186	130
9/18/2020						119
9/21/2020		152			155	
9/25/2020	56.8					
9/28/2020			167	107		
11/11/2020	54.9					133
11/12/2020					165	
12/16/2020	56.4				194	132
1/20/2021	55				177 (M1)	131
3/12/2021	56.5	174			165	138
3/15/2021			167	103		
8/13/2021	53					
8/16/2021		171	162	106		
8/19/2021					196	139
2/1/2022	51.3					
2/2/2022		159	148	95.9		
2/3/2022					175	157
8/2/2022	49.9					
8/4/2022		173	160	103	170	141
1/24/2023	53.9		156	96.2		
1/25/2023		161			174	132

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	9.94		6.14	5.93		
7/11/2016	6.3		5.9			
7/12/2016				6.2		
8/30/2016	6	2.8	6.2	6.4		
10/19/2016	5.8		6.1	6.5		
10/20/2016		2.8				
12/6/2016	5.4		6	7.2		
1/24/2017	5.2		6.1	6.4		
1/25/2017		2.8				
3/21/2017	4.6		5.9	7.5		
5/22/2017	4.6		5.9	6.5		
5/25/2017		2.9				
8/11/2017		3				
10/3/2017	5.6		6.3	6.5		
11/15/2017		3.1				
6/4/2018	13.1		6.1	6.3		
6/5/2018		3				
10/1/2018	6.6		6.4	6.4		
10/2/2018		3.1				
4/1/2019				6.5		
4/2/2019	20.3	3.6	5.8			
6/18/2019		3.2				
9/23/2019	17.7		5.1	5.9		
10/21/2019		4.5				
3/24/2020		4.5				
3/25/2020	20.4		5.2	6.1		
6/16/2020	41.1			5.8		
9/15/2020	13.4	3.6	5	6		
9/16/2020					4.1	4.1
11/10/2020					4.4	7.8
12/15/2020					4.7	9.4
1/19/2021					4.1	9.5
3/10/2021	7.4					12.3
3/11/2021		2.3	5.1	5.9	4.5	
8/11/2021	9.6				3.5	
8/12/2021			5.2	4.8		
8/13/2021		2.6				39.9
2/1/2022	7.5	2.2	7	5.7	4.1	44.8
8/2/2022	14.1	2.7	7.8	5.9	4.3	19.8
1/23/2023				5.6		
1/24/2023	9	2.4	7.1		4.3	24.9

Time Series

Constituent: Chloride (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		3.5	64	3		
10/26/2016		3.6		3.6		
11/7/2016			65			
1/13/2017			50			
1/27/2017		3.3		4		
5/25/2017		3.4		3.5		
6/3/2017			43			
8/11/2017				2.9		
10/2/2017		4.2	42			
11/15/2017		2.9	46	3.1		
6/5/2018		3.1	40.4	3.1		
10/2/2018		3.2		3.4		
10/5/2018			39			
4/2/2019		3.1				
4/3/2019			35.9	3.4		
6/17/2019			32.9			
6/18/2019				2.3 (J)		
10/21/2019			29.9	3.6		
10/22/2019		3.4				
3/24/2020				2.7		
3/25/2020		2.4	16.3			
5/22/2020					12.9	8.6
6/15/2020		2.3				
6/16/2020					10.4	8.6
8/25/2020					10.6	8.7
9/18/2020						8.4
9/21/2020		2.4			12.1	
9/25/2020	3.6					
9/28/2020			23.2	2.5		
11/11/2020	3.3					8.3
11/12/2020					10.4	
12/16/2020	3.4				5.3	8.9
1/20/2021	3.5				10.2	8.5
3/12/2021	3.3	2.4			10.8	8.5
3/15/2021			21.8	2.9		
8/13/2021	3.3					
8/16/2021		2.4	18	2.6		
8/19/2021					4.5	7.8
2/1/2022	3.5					
2/2/2022		2.5	16.8	2.6		
2/3/2022					8.1	8.5
8/2/2022	3.9					
8/4/2022		2.7	15.4	2.6	11.6	8.7
1/24/2023	3.5		14.6	2.5		
1/25/2023		2.6			8.7	8.7

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.005		<0.005	<0.005		
7/11/2016	<0.005		<0.005			
7/12/2016				<0.005		
8/30/2016	<0.005	<0.005	<0.005	<0.005		
10/19/2016	<0.005		<0.005	<0.005		
10/20/2016		<0.005				
12/6/2016	<0.005		<0.005	<0.005		
1/24/2017	<0.005		<0.005	<0.005		
1/25/2017		<0.005				
3/21/2017	0.0005 (J)		<0.005	<0.005		
5/22/2017	<0.005		<0.005	0.0007 (J)		
5/25/2017		0.0006 (J)				
8/11/2017		0.0007 (J)				
11/15/2017		0.0006 (J)				
4/2/2018	<0.005		<0.005			
4/3/2018				<0.005		
6/5/2018		<0.005				
10/2/2018		<0.005				
3/12/2019	<0.005		<0.005	<0.005		
4/1/2019				<0.005		
4/2/2019	<0.005		0.0079 (J)			
8/22/2019		0.0006 (J)				
9/23/2019	<0.005		0.00058 (J)	<0.005		
10/21/2019		0.00068 (J)				
3/2/2020	<0.005		0.00041 (J)	<0.005		
3/24/2020		0.0013 (J)				
3/25/2020	0.00072 (J)		<0.005	<0.005		
8/24/2020		0.00093 (J)				
8/25/2020			0.00067 (J)	<0.005		
8/28/2020	<0.005					
9/15/2020	<0.005	0.00067 (J)	<0.005	<0.005		
9/16/2020					<0.005	0.0012 (J)
11/10/2020					<0.005	0.00089 (J)
12/15/2020					<0.005	0.00072 (J)
1/19/2021					<0.005	<0.005
3/10/2021	<0.005					<0.005
3/11/2021		0.0017 (J)	<0.005	<0.005	<0.005	
8/11/2021	<0.005				<0.005	
8/12/2021			<0.005	<0.005		
8/13/2021		<0.005				0.0016 (J)
2/1/2022	<0.005	<0.005	<0.005	<0.005	<0.005	0.0013 (J)
8/2/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1/23/2023				<0.005		
1/24/2023	<0.005	<0.005	<0.005		<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Chromium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		<0.005	<0.005	<0.005		
10/26/2016		<0.005		<0.005		
11/7/2016			<0.005			
1/13/2017			<0.005			
1/27/2017		<0.005		<0.005		
5/25/2017		<0.005		<0.005		
6/3/2017			<0.005			
8/11/2017				<0.005		
10/2/2017		<0.005	<0.005			
11/15/2017		<0.005	<0.005	<0.005		
6/5/2018		<0.005	<0.005	<0.005		
10/2/2018		<0.005		<0.005		
10/5/2018			<0.005			
8/22/2019		0.00072 (J)	<0.005			
8/23/2019				<0.005		
10/21/2019			<0.005	0.00046 (J)		
10/22/2019		<0.005				
3/24/2020				0.00051 (J)		
3/25/2020		0.0015 (J)	0.0005 (J)			
5/22/2020					0.00058 (J)	<0.005
6/16/2020					0.00052 (J)	<0.005
8/25/2020					<0.005	0.00096 (J)
8/26/2020		<0.005	<0.005			
8/27/2020				<0.005		
9/18/2020						<0.005
9/21/2020		0.00065 (J)			<0.005	
9/25/2020	<0.005					
9/28/2020			<0.005	<0.005		
11/11/2020	<0.005					<0.005
11/12/2020					<0.005	
12/16/2020	<0.005				<0.005	<0.005
1/20/2021	0.00067 (J)				0.00081 (J)	<0.005
3/12/2021	<0.005	<0.005			<0.005	<0.005
3/15/2021			<0.005	<0.005		
8/13/2021	<0.005					
8/16/2021		<0.005	<0.005	<0.005		
8/19/2021					<0.005	<0.005
2/1/2022	<0.005					
2/2/2022		<0.005	<0.005	<0.005		
2/3/2022					<0.005	<0.005
8/2/2022	<0.005					
8/4/2022		<0.005	<0.005	<0.005	<0.005	<0.005
1/24/2023	<0.005		<0.005	<0.005		
1/25/2023		<0.005			<0.005	0.0014 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.005		0.0293	<0.005		
7/11/2016	0.0004 (J)		0.0267			
7/12/2016				<0.005		
8/30/2016	<0.005	<0.005	0.028	<0.005		
10/19/2016	<0.005		0.0201	<0.005		
10/20/2016		<0.005				
12/6/2016	<0.005		0.0184	<0.005		
1/24/2017	<0.005		0.0206	<0.005		
1/25/2017		<0.005				
3/21/2017	<0.005		0.0251	<0.005		
5/22/2017	<0.005		0.0263	<0.005		
5/25/2017		<0.005				
8/11/2017		<0.005				
11/15/2017		<0.005				
4/2/2018	<0.005		0.019			
4/3/2018				<0.005		
6/4/2018	<0.005		0.025	<0.005		
6/5/2018		<0.005				
10/1/2018	<0.005		0.026	<0.005		
10/2/2018		<0.005				
3/12/2019	<0.005		0.017	<0.005		
4/1/2019				<0.005		
4/2/2019	<0.005		0.019			
8/22/2019		<0.005				
9/23/2019	<0.005		0.038	<0.005		
10/21/2019		<0.005				
3/2/2020	<0.005		0.019	<0.005		
3/24/2020		<0.005				
3/25/2020	<0.005		0.02	<0.005		
8/24/2020		<0.005				
8/25/2020			0.018	<0.005		
8/28/2020	<0.005					
9/15/2020	<0.005	<0.005	0.021	<0.005		
9/16/2020					<0.005	<0.005
11/10/2020					<0.005	<0.005
12/15/2020					<0.005	<0.005
1/19/2021					<0.005	<0.005
3/10/2021	<0.005					<0.005
3/11/2021		<0.005	0.013	<0.005	<0.005	
8/11/2021	<0.005				<0.005	
8/12/2021			0.022	<0.005		
8/13/2021		<0.005				<0.005
2/1/2022	<0.005	<0.005	0.025	<0.005	<0.005	<0.005
8/2/2022	0.00054 (J)	<0.005	0.024	<0.005	<0.005	<0.005
1/23/2023				<0.005		
1/24/2023	<0.005	<0.005	0.024		<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Cobalt (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		0.0052 (J)	<0.005	<0.005		
10/26/2016		0.0041 (J)		<0.005		
11/7/2016			<0.005			
1/13/2017			<0.005			
1/27/2017		0.0034 (J)		<0.005		
5/25/2017		0.0035 (J)		<0.005		
6/3/2017			0.0005 (J)			
8/11/2017				<0.005		
10/2/2017		0.0036 (J)	0.0003 (J)			
11/15/2017		0.0032 (J)	0.0003 (J)	<0.005		
6/5/2018		0.0031 (J)	<0.005	<0.005		
10/2/2018		0.0025 (J)		<0.005		
10/5/2018			<0.005			
8/22/2019		0.0028 (J)	<0.005			
8/23/2019				<0.005		
10/21/2019			<0.005	<0.005		
10/22/2019		0.0031 (J)				
3/24/2020				<0.005		
3/25/2020		0.0036 (J)	<0.005			
5/22/2020					0.01	<0.005
6/16/2020					0.0096	<0.005
8/25/2020					0.0087	<0.005
8/26/2020		0.0023 (J)	<0.005			
8/27/2020				<0.005		
9/18/2020						<0.005
9/21/2020		0.0041 (J)			0.012	
9/25/2020	<0.005					
9/28/2020			<0.005	<0.005		
11/11/2020	<0.005					<0.005
11/12/2020					0.012	
12/16/2020	<0.005				0.0055	<0.005
1/20/2021	<0.005				0.012	<0.005
3/12/2021	<0.005	0.0027 (J)			0.014	<0.005
3/15/2021			<0.005	<0.005		
8/13/2021	<0.005					
8/16/2021		0.0037 (J)	<0.005	<0.005		
8/19/2021					0.0054	<0.005
2/1/2022	<0.005					
2/2/2022		0.0072	<0.005	<0.005		
2/3/2022					0.0086	<0.005
8/2/2022	<0.005					
8/4/2022		0.0058	<0.005	<0.005	0.014	<0.005
1/24/2023	<0.005		<0.005	<0.005		
1/25/2023		0.0055			0.0097	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	0.397 (U)		0.627 (U)	0.342 (U)		
7/11/2016	0.738 (U)		1.38			
7/12/2016				0.499 (U)		
8/30/2016	0.581 (U)	0.972 (U)	1.05 (U)	0.976 (U)		
10/19/2016	0.213 (U)		1.11 (U)	0.626 (U)		
10/20/2016		0.496 (U)				
12/6/2016	0.444 (U)		0.741 (U)	0.805 (U)		
1/24/2017	0.373 (U)		0.908 (U)	0.336 (U)		
1/25/2017		1.13 (U)				
3/21/2017	0.816 (U)		0.567 (U)	0.358 (U)		
5/22/2017	0.554 (U)		0.638 (U)	0.744 (U)		
5/25/2017		0.192 (U)				
8/11/2017		0.908 (U)				
11/15/2017		0.662 (U)				
4/2/2018	0.405 (U)		0.761 (U)			
4/3/2018				0.684 (U)		
6/4/2018	1.13 (U)		0.975 (U)	0.0291 (U)		
6/5/2018		0.593 (U)				
10/1/2018	0.132 (U)		0.434 (U)	0.781 (U)		
10/2/2018		1.37				
3/12/2019	0.327 (U)		0.454 (U)	1.01 (U)		
4/1/2019				0.76 (U)		
4/2/2019	0.739 (U)		0.651 (U)			
8/22/2019		1.19 (U)				
9/30/2019	0.306 (U)		1.04 (U)	0.384 (U)		
10/21/2019		0.772 (U)				
3/2/2020	0.61 (U)		1.58	0.249 (U)		
3/24/2020		0.379 (U)				
3/25/2020	4.36		0.621 (U)	0.833 (U)		
8/24/2020		0.883 (U)				
8/25/2020			0.778 (U)	0.33 (U)		
8/28/2020	0 (U)					
9/15/2020	0.748 (U)	0.375 (U)	0.124 (U)	0.161 (U)		
9/16/2020					0.531 (U)	0.422 (U)
11/10/2020					0.788 (U)	0.293 (U)
12/15/2020					1.04 (U)	0.7 (U)
1/19/2021					0.685 (U)	0.79 (U)
8/11/2021	0.115 (U)				0.394 (U)	
8/12/2021			0.746 (U)	0.498 (U)		
8/13/2021		0.914 (U)				0.959 (U)
2/1/2022	0.143 (U)	0.276 (U)	0.588 (U)	0.266 (U)	1.12	0.665 (U)
8/2/2022	0.203 (U)	0.573 (U)	0.861 (U)	0.4 (U)	0.662 (U)	0.952 (U)
1/23/2023				0.311 (U)		
1/24/2023	0.549 (U)	0.442 (U)	0.829 (U)		1.25	0.421 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		1.47	1.57	1.22		
10/26/2016		0.864 (U)		0.637 (U)		
11/7/2016			0.739 (U)			
1/13/2017			0.744 (U)			
1/27/2017		0.521 (U)		0.795 (U)		
5/25/2017		0.681 (U)		0.896 (U)		
6/3/2017			0 (U)			
8/11/2017				0.828 (U)		
10/2/2017		0.632 (U)	0.68 (U)			
11/15/2017		1.3	0.911 (U)	0.478 (U)		
6/5/2018		1.26 (U)	0.948 (U)	0.947 (U)		
10/2/2018		0.572 (U)		0.617 (U)		
10/5/2018			1.17 (U)			
8/22/2019		1.35	1.3			
8/23/2019				0.834		
10/21/2019			0.393 (U)	1.11 (U)		
10/22/2019		0.76 (U)				
3/24/2020				0.796 (U)		
3/25/2020		0.696 (U)	0.505 (U)			
5/22/2020					1.1 (U)	1.82
6/16/2020					1.62	1.82
8/25/2020					1.65	1.82
8/26/2020		0.357 (U)	1.96			
8/27/2020				0.494 (U)		
9/18/2020						0.841 (U)
9/21/2020		0.553 (U)			1.45	
9/25/2020	1.07 (U)					
9/28/2020			0.761 (U)	0.477 (U)		
11/11/2020	0.49 (U)					0.837 (U)
11/12/2020					0.633 (U)	
12/16/2020	0.963 (U)				0.818 (U)	1.26 (U)
1/20/2021	0.682 (U)				1.01 (U)	0.985 (U)
8/13/2021	1.2					
8/16/2021		1.25	0.192 (U)	0.734 (U)		
8/19/2021					0.721 (U)	1.11
2/1/2022	0.895					
2/2/2022		0.816 (U)	0.254 (U)	0.564 (U)		
2/3/2022					0.257 (U)	1.51
8/2/2022	0.509 (U)					
8/4/2022		0.687 (U)	1.16 (U)	0.16 (U)	0.971 (U)	1.34 (U)
1/24/2023	0.743 (U)		0.757 (U)	0.601 (U)		
1/25/2023		0.992			1.11	1.91

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	0.105 (J)		0.0303 (J)	0.0513 (J)		
7/11/2016	0.16 (J)		0.05 (J)			
7/12/2016				0.12 (J)		
8/30/2016	0.09 (J)	0.19 (J)	0.06 (J)	0.09 (J)		
10/19/2016	0.1 (J)		0.04 (J)	0.1 (J)		
10/20/2016		0.13 (J)				
12/6/2016	0.11 (J)		0.36	0.21 (J)		
1/24/2017	0.09 (J)		<0.1	0.06 (J)		
1/25/2017		0.22 (J)				
3/21/2017	0.13 (J)		<0.1	0.005 (J)		
5/22/2017	0.12 (J)		<0.1	0.05 (J)		
5/25/2017		0.12 (J)				
8/11/2017		0.12 (J)				
10/3/2017	0.13 (J)		<0.1	0.13 (J)		
11/15/2017		0.05 (J)				
4/2/2018	<0.3		<0.1			
4/3/2018				<0.1		
6/4/2018	0.074 (J)		<0.1	<0.1		
6/5/2018		0.15 (J)				
10/1/2018	<0.3		<0.1	<0.1		
10/2/2018		0.22 (J)				
3/12/2019	0.29 (J)		0.038 (J)	0.072 (J)		
4/1/2019				0.029 (J)		
4/2/2019	0.1 (J)	0.2 (J)	0.071 (J)			
6/18/2019		0.14 (J)				
8/22/2019		0.12 (J)				
9/23/2019	0.078 (J)		<0.1	<0.1		
10/21/2019		0.15 (J)				
3/2/2020	0.076 (J)		<0.1	<0.1		
3/24/2020		0.085 (J)				
3/25/2020	0.098 (J)		<0.1	<0.1		
6/16/2020	0.071 (J)			<0.1		
8/24/2020		0.075 (J)				
8/25/2020			<0.1	<0.1		
8/28/2020	0.08 (J)					
9/15/2020	0.082 (J)	0.096 (J)	<0.1	<0.1		
9/16/2020					0.22	0.22
11/10/2020					0.19	0.59
12/15/2020					0.21	0.67
1/19/2021					0.16	0.74
3/10/2021	0.079 (J)					0.65
3/11/2021		0.059 (J)	0.1	<0.1	0.2	
8/11/2021	0.058 (J)				0.15	
8/12/2021			<0.1	<0.1		
8/13/2021		0.065 (J)				0.87
2/1/2022	0.064 (J)	0.062 (J)	<0.1	<0.1	0.19	0.96
8/2/2022	0.09 (J)	0.1	0.053 (J)	0.067 (J)	0.22	0.8
1/23/2023				0.061 (J)		
1/24/2023	0.089 (J)	0.13	0.053 (J)		0.23	1.3

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Fluoride (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		0.65	0.14 (J)	0.15 (J)		
10/26/2016		0.6		0.3		
11/7/2016			0.18 (J)			
1/13/2017			0.14 (J)			
1/27/2017		1.2		0.3		
5/25/2017		1.4		0.05 (J)		
6/3/2017			0.15 (J)			
8/11/2017				0.1 (J)		
10/2/2017		1	1.2			
11/15/2017		1.3	0.6	<0.1		
6/5/2018		0.48	0.19 (J)	0.078 (J)		
10/2/2018		0.34		0.078 (J)		
10/5/2018			0.23 (J)			
4/2/2019		0.47				
4/3/2019			0.14 (J)	0.089 (J)		
6/17/2019		1.2				
8/22/2019		0.3 (J)	0.2 (J)			
8/23/2019				0.11 (J)		
10/21/2019			0.18 (J)	0.073 (J)		
10/22/2019		0.53				
3/24/2020				<0.1		
3/25/2020		0.43	0.095 (J)			
5/22/2020					0.1 (J)	0.46
6/15/2020		0.37				
6/16/2020					0.12	0.44
8/25/2020					0.16	0.52
8/26/2020		0.48	0.16			
8/27/2020				<0.1		
9/18/2020						0.43
9/21/2020		0.33			0.11	
9/25/2020	0.21					
9/28/2020			0.15	<0.1		
11/11/2020	0.19					0.45
11/12/2020					0.12	
12/16/2020	0.18				0.2	0.49
1/20/2021	0.22				0.13	0.44
3/12/2021	0.2	0.42			0.12	0.46
3/15/2021			0.16	<0.1		
8/13/2021	0.2					
8/16/2021		0.39	0.15	<0.1		
8/19/2021					0.17	0.43
2/1/2022	0.15					
2/2/2022		0.36	0.15	<0.1		
2/3/2022					0.18	0.51
8/2/2022	0.21					
8/4/2022		0.38	0.18	0.074 (J)	0.15	0.5
1/24/2023	0.19		0.18	0.068 (J)		
1/25/2023		0.42			0.17	0.57

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.001		<0.001	<0.001		
7/11/2016	<0.001		<0.001			
7/12/2016				0.0001 (J)		
8/30/2016	<0.001	<0.001	<0.001	<0.001		
10/19/2016	<0.001		<0.001	<0.001		
10/20/2016		<0.001				
12/6/2016	<0.001		<0.001	<0.001		
1/24/2017	<0.001		<0.001	<0.001		
1/25/2017		<0.001				
3/21/2017	<0.001		6E-05 (J)	0.0001 (J)		
5/22/2017	<0.001		9E-05 (J)	<0.001		
5/25/2017		<0.001				
8/11/2017		0.0001 (J)				
11/15/2017		0.0002 (J)				
4/2/2018	<0.001		<0.001			
4/3/2018				<0.001		
6/5/2018		<0.001				
10/2/2018		<0.001				
3/12/2019	<0.001		<0.001	<0.001		
4/1/2019				<0.001		
4/2/2019	<0.001		<0.001			
8/22/2019		<0.001				
9/23/2019	7.8E-05 (J)		9.2E-05 (J)	<0.001		
10/21/2019		9.7E-05 (J)				
3/2/2020	4.8E-05 (J)		9.5E-05 (J)	<0.001		
3/24/2020		0.00012 (J)				
3/25/2020	<0.001		0.00011 (J)	<0.001		
8/24/2020		7.7E-05 (J)				
8/25/2020			8.5E-05 (J)	<0.001		
8/28/2020	7E-05 (J)					
9/15/2020	<0.001	4.3E-05 (J)	8E-05 (J)	4.2E-05 (J)		
9/16/2020					5E-05 (J)	0.00021 (J)
11/10/2020					6.9E-05 (J)	0.0002 (J)
12/15/2020					8.2E-05 (J)	0.00011 (J)
1/19/2021					4.4E-05 (J)	<0.001
3/10/2021	<0.001					<0.001
3/11/2021		9.3E-05 (J)	7.6E-05 (J)	<0.001	9.4E-05 (J)	
8/11/2021	<0.001				<0.001	
8/12/2021			<0.001	<0.001		
8/13/2021		<0.001				<0.001
2/1/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/2/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/23/2023				<0.001		
1/24/2023	<0.001	<0.001	<0.001		<0.001	<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lead (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		<0.001	<0.001	<0.001		
10/26/2016		0.0002 (J)		<0.001		
11/7/2016			<0.001			
1/13/2017			<0.001			
1/27/2017		<0.001		<0.001		
5/25/2017		9E-05 (J)		<0.001		
6/3/2017			7E-05 (J)			
8/11/2017				8E-05 (J)		
10/2/2017		8E-05 (J)	<0.001			
11/15/2017		<0.001	<0.001	<0.001		
6/5/2018		<0.001	0.00036 (J)	<0.001		
10/2/2018		<0.001		<0.001		
10/5/2018			<0.001			
8/22/2019		<0.001	<0.001			
8/23/2019				4.9E-05 (J)		
10/21/2019			<0.001	4.9E-05 (J)		
10/22/2019		<0.001				
3/24/2020				9.4E-05 (J)		
3/25/2020		<0.001	<0.001			
5/22/2020					0.00014 (J)	<0.001
6/16/2020					0.00013 (J)	<0.001
8/25/2020					<0.001	4.5E-05 (J)
8/26/2020		<0.001	<0.001			
8/27/2020				<0.001		
9/18/2020						<0.001
9/21/2020		<0.001			<0.001	
9/25/2020	<0.001					
9/28/2020			<0.001	7.5E-05 (J)		
11/11/2020	4E-05 (J)					4.2E-05 (J)
11/12/2020					4.7E-05 (J)	
12/16/2020	5.8E-05 (J)				<0.001	<0.001
1/20/2021	8.2E-05 (J)				9.2E-05 (J)	<0.001
3/12/2021	5.5E-05 (J)	<0.001			4.4E-05 (J)	4.6E-05 (J)
3/15/2021			0.00015 (J)	<0.001		
8/13/2021	<0.001					
8/16/2021		<0.001	<0.001	<0.001		
8/19/2021					<0.001	<0.001
2/1/2022	<0.001					
2/2/2022		<0.001	<0.001	<0.001		
2/3/2022					<0.001	<0.001
8/2/2022	<0.001					
8/4/2022		<0.001	<0.001	<0.001	<0.001	<0.001
1/24/2023	<0.001		<0.001	<0.001		
1/25/2023		<0.001			<0.001	<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.03		<0.03	<0.03		
7/11/2016	<0.03		0.0014 (J)			
7/12/2016				0.0024 (J)		
8/30/2016	<0.03	<0.03	<0.03	0.0025 (J)		
10/19/2016	<0.03		<0.03	0.003 (J)		
10/20/2016		<0.03				
12/6/2016	<0.03		<0.03	0.0033 (J)		
1/24/2017	<0.03		<0.03	0.003 (J)		
1/25/2017		<0.03				
3/21/2017	<0.03		0.0012 (J)	0.0034 (J)		
5/22/2017	<0.03		<0.03	0.003 (J)		
5/25/2017		<0.03				
8/11/2017		<0.03				
11/15/2017		<0.03				
4/2/2018	<0.03		0.0015 (J)			
4/3/2018				0.003 (J)		
6/4/2018	0.001 (J)		0.0016 (J)	0.0027 (J)		
6/5/2018		<0.03				
10/1/2018	0.00099 (J)		0.0013 (J)	0.0032 (J)		
10/2/2018		<0.03				
3/12/2019	0.001 (J)		0.0018 (J)	0.0032 (J)		
4/1/2019				0.0032 (J)		
4/2/2019	0.001 (J)		0.0018 (J)			
8/22/2019		<0.03				
9/23/2019	0.0011 (J)		0.0016 (J)	0.0029 (J)		
10/21/2019		<0.03				
3/2/2020	0.0012 (J)		0.0017 (J)	0.0037 (J)		
3/24/2020		<0.03				
3/25/2020	0.00083 (J)		0.0017 (J)	0.0035 (J)		
8/24/2020		<0.03				
8/25/2020			0.0015 (J)	0.0027 (J)		
8/28/2020	0.00087 (J)					
9/15/2020	0.00087 (J)	<0.03	0.0015 (J)	0.0026 (J)		
9/16/2020					0.0018 (J)	0.014 (J)
11/10/2020					0.0013 (J)	0.025 (J)
12/15/2020					0.0019 (J)	0.028 (J)
1/19/2021					0.0025 (J)	<0.03
3/10/2021	0.0009 (J)					0.03
3/11/2021		<0.03	0.0011 (J)	0.0035 (J)	0.0022 (J)	
8/11/2021	0.00078 (J)				0.0024 (J)	
8/12/2021			0.0012 (J)	0.0028 (J)		
8/13/2021		<0.03				0.032
2/1/2022	0.0011 (J)	<0.03	0.0017 (J)	0.0037 (J)	0.0024 (J)	0.048
8/2/2022	<0.03	<0.03	0.0013 (J)	0.003 (J)	0.0019 (J)	0.041
1/23/2023				0.003 (J)		
1/24/2023	0.00092 (J)	<0.03	0.0014 (J)		0.002 (J)	0.064

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Lithium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		0.0333 (J)	0.0077 (J)	<0.03		
10/26/2016		0.0352 (J)		<0.03		
11/7/2016			0.0089 (J)			
1/13/2017			0.0091 (J)			
1/27/2017		0.0329 (J)		<0.03		
5/25/2017		0.0347 (J)		0.0011 (J)		
6/3/2017			0.0104 (J)			
8/11/2017				<0.03		
10/2/2017		0.0337 (J)	0.0095 (J)			
11/15/2017		0.0347 (J)	0.0086 (J)	<0.03		
6/5/2018		0.033 (J)	0.0092 (J)	0.0012 (J)		
10/2/2018		0.031 (J)		0.0012 (J)		
10/5/2018			0.0091 (J)			
8/22/2019		0.029 (J)	0.0084 (J)			
8/23/2019				0.0011 (J)		
10/21/2019			0.009 (J)	0.0011 (J)		
10/22/2019		0.03 (J)				
3/24/2020				0.0012 (J)		
3/25/2020		0.024 (J)	0.0066 (J)			
5/22/2020					0.0052 (J)	0.0046 (J)
6/16/2020					0.0053 (J)	0.0045 (J)
8/25/2020					0.0037 (J)	0.0037 (J)
8/26/2020		0.023 (J)	0.0071 (J)			
8/27/2020				0.00091 (J)		
9/18/2020						0.0035 (J)
9/21/2020		0.023 (J)			0.0038 (J)	
9/25/2020	0.0049 (J)					
9/28/2020			0.0076 (J)	0.0011 (J)		
11/11/2020	0.0032 (J)					0.0032 (J)
11/12/2020					0.0038 (J)	
12/16/2020	0.0045 (J)				0.0055 (J)	0.0029 (J)
1/20/2021	0.0025 (J)				0.0046 (J)	0.0038 (J)
3/12/2021	0.005 (J)	0.023 (J)			0.0039 (J)	0.0038 (J)
3/15/2021			0.0077 (J)	0.001 (J)		
8/13/2021	0.0044 (J)					
8/16/2021		0.025 (J)	0.0075 (J)	0.0011 (J)		
8/19/2021					0.0074 (J)	0.0032 (J)
2/1/2022	0.0055 (J)					
2/2/2022		0.025 (J)	0.0082 (J)	0.0012 (J)		
2/3/2022					0.0057 (J)	0.0038 (J)
8/2/2022	0.0045 (J)					
8/4/2022		0.023 (J)	0.0069 (J)	0.0011 (J)	0.0035 (J)	0.0034 (J)
1/24/2023	0.0044 (J)		0.0066 (J)	0.0011 (J)		
1/25/2023		0.018 (J)			0.0045 (J)	0.0046 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.0002		<0.0002	<0.0002		
7/11/2016	<0.0002		<0.0002			
7/12/2016				<0.0002		
8/30/2016	4E-05 (J)	4.3E-05 (J)	4E-05 (J)	<0.0002		
10/19/2016	<0.0002		<0.0002	<0.0002		
10/20/2016		<0.0002				
12/6/2016	<0.0002		<0.0002	<0.0002		
1/24/2017	<0.0002		<0.0002	<0.0002		
1/25/2017		4E-05 (J)				
3/21/2017	<0.0002		<0.0002	<0.0002		
5/22/2017	<0.0002		<0.0002	<0.0002		
5/25/2017		7E-05 (J)				
8/11/2017		<0.0002				
11/15/2017		<0.0002				
4/2/2018	<0.0002		<0.0002			
4/3/2018				<0.0002		
6/5/2018		<0.0002				
10/2/2018		<0.0002				
3/12/2019	<0.0002		<0.0002	<0.0002		
8/22/2019		<0.0002				
3/2/2020	<0.0002		<0.0002	<0.0002		
8/24/2020		<0.0002				
8/25/2020			<0.0002	<0.0002		
8/28/2020	<0.0002					
9/16/2020					<0.0002	<0.0002
11/10/2020					<0.0002	<0.0002
12/15/2020					<0.0002	<0.0002
1/19/2021					<0.0002	<0.0002
8/11/2021	<0.0002				<0.0002	
8/12/2021			<0.0002	<0.0002		
8/13/2021		<0.0002				<0.0002
2/1/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
8/2/2022	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/23/2023				<0.0002		
1/24/2023	<0.0002	<0.0002	<0.0002		<0.0002	<0.0002

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Mercury (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		4E-05 (J)	<0.0002	<0.0002		
10/26/2016		<0.0002		<0.0002		
11/7/2016			<0.0002			
1/13/2017			<0.0002			
1/27/2017		<0.0002		<0.0002		
5/25/2017		7E-05 (J)		5.1E-05 (J)		
6/3/2017			<0.0002			
8/11/2017				<0.0002		
10/2/2017		<0.0002	<0.0002			
11/15/2017		<0.0002	<0.0002	<0.0002		
6/5/2018		<0.0002	<0.0002	<0.0002		
10/2/2018		<0.0002		<0.0002		
10/5/2018			<0.0002			
8/22/2019		<0.0002	<0.0002			
8/23/2019				<0.0002		
5/22/2020					<0.0002	<0.0002
6/16/2020					<0.0002	<0.0002
8/25/2020					<0.0002	<0.0002
8/26/2020		<0.0002	<0.0002			
8/27/2020				<0.0002		
9/18/2020						<0.0002
9/21/2020					<0.0002	
9/25/2020	<0.0002					
11/11/2020	<0.0002					<0.0002
11/12/2020					<0.0002	
12/16/2020	<0.0002				<0.0002	<0.0002
1/20/2021	<0.0002				<0.0002	<0.0002
8/13/2021	<0.0002					
8/16/2021		<0.0002	<0.0002	<0.0002		
8/19/2021					<0.0002	<0.0002
2/1/2022	<0.0002					
2/2/2022		<0.0002	<0.0002	<0.0002		
2/3/2022					<0.0002	<0.0002
8/2/2022	<0.0002					
8/4/2022		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
1/24/2023	<0.0002		<0.0002	<0.0002		
1/25/2023		<0.0002			<0.0002	<0.0002

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.01		<0.01	<0.01		
7/11/2016	<0.01		<0.01			
7/12/2016				<0.01		
8/30/2016	<0.01	0.0026 (J)	<0.01	<0.01		
10/19/2016	<0.01		<0.01	<0.01		
10/20/2016		0.005 (J)				
12/6/2016	<0.01		<0.01	<0.01		
1/24/2017	<0.01		<0.01	<0.01		
1/25/2017		0.0054 (J)				
3/21/2017	<0.01		<0.01	<0.01		
5/22/2017	<0.01		<0.01	<0.01		
5/25/2017		0.0018 (J)				
8/11/2017		0.0029 (J)				
11/15/2017		0.0018 (J)				
4/2/2018	<0.01		<0.01			
4/3/2018				<0.01		
6/4/2018	<0.01		<0.01	<0.01		
6/5/2018		0.0028 (J)				
10/1/2018	<0.01		<0.01	<0.01		
10/2/2018		<0.01				
3/12/2019	<0.01		<0.01	<0.01		
4/1/2019				<0.01		
4/2/2019	<0.01		<0.01			
8/22/2019		0.003 (J)				
9/23/2019	<0.01		<0.01	<0.01		
10/21/2019		0.0049 (J)				
3/2/2020	<0.01		<0.01	<0.01		
3/24/2020		0.0091 (J)				
3/25/2020	<0.01		<0.01	<0.01		
6/16/2020	<0.01			<0.01		
8/24/2020		0.0031 (J)				
8/25/2020			<0.01	<0.01		
8/28/2020	<0.01					
9/15/2020	<0.01	0.0045 (J)	<0.01	<0.01		
9/16/2020					0.0044 (J)	0.0019 (J)
11/10/2020					0.0072 (J)	0.0018 (J)
12/15/2020					0.0044 (J)	0.0019 (J)
1/19/2021					0.0038 (J)	<0.01
3/10/2021	<0.01					0.0019 (J)
3/11/2021		0.0014 (J)	<0.01	<0.01	0.0064 (J)	
8/11/2021	<0.01				0.0034 (J)	
8/12/2021			<0.01	<0.01		
8/13/2021		0.0022 (J)				0.0051 (J)
2/1/2022	<0.01	0.002 (J)	<0.01	<0.01	0.0036 (J)	0.0055 (J)
8/2/2022	<0.01	0.0042 (J)	<0.01	<0.01	0.0042 (J)	0.002 (J)
1/23/2023				<0.01		
1/24/2023	<0.01	0.0035 (J)	<0.01		0.0027 (J)	0.0026 (J)

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		0.0176	<0.01	<0.01		
10/26/2016		0.0187		<0.01		
11/7/2016			<0.01			
1/13/2017			<0.01			
1/27/2017		0.0214		<0.01		
5/25/2017		0.0231		0.0009 (J)		
6/3/2017			<0.01			
8/11/2017				0.0013 (J)		
10/2/2017		0.0259	<0.01			
11/15/2017		0.0281	<0.01	0.0012 (J)		
6/5/2018		0.033	<0.01	<0.01		
10/2/2018		0.036		<0.01		
10/5/2018			<0.01			
8/22/2019		0.039	<0.01			
8/23/2019				0.0014 (J)		
10/21/2019			<0.01	0.0013 (J)		
10/22/2019		0.04				
3/24/2020				0.001 (J)		
3/25/2020		0.034	<0.01			
5/22/2020					<0.01	<0.01
6/16/2020					<0.01	<0.01
8/25/2020					0.00099 (J)	<0.01
8/26/2020		0.05	<0.01			
8/27/2020				0.00091 (J)		
9/18/2020						<0.01
9/21/2020		0.043			<0.01	
9/25/2020	0.0014 (J)					
9/28/2020			<0.01	0.0009 (J)		
11/11/2020	0.0049 (J)					<0.01
11/12/2020					0.0017 (J)	
12/16/2020	0.0024 (J)				0.014	<0.01
1/20/2021	0.0063 (J)				0.0013 (J)	<0.01
3/12/2021	0.0019 (J)	0.033			0.0012 (J)	<0.01
3/15/2021			<0.01	0.00092 (J)		
8/13/2021	<0.01					
8/16/2021		0.035	<0.01	0.00091 (J)		
8/19/2021					0.021	<0.01
2/1/2022	<0.01					
2/2/2022		0.034	<0.01	0.001 (J)		
2/3/2022					0.0067 (J)	<0.01
8/2/2022	<0.01					
8/4/2022		0.032	<0.01	<0.01	0.0023 (J)	<0.01
1/24/2023	<0.01		<0.01	<0.01		
1/25/2023		0.03			0.0053 (J)	<0.01

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: pH (s.u.) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	7.27		5.81	7.45		
7/11/2016	7.06		5.68			
7/12/2016				7.32		
8/30/2016	7.28	6.75	5.63	7.43		
10/19/2016	7.02		5.46	7.03		
10/20/2016		6.73				
12/6/2016	7.09		5.38	7.08		
1/24/2017	7.2		5.37	7.39		
1/25/2017		6.88				
3/21/2017	7.01		4.9	6.83		
5/22/2017	7.11		5.2	7.02		
5/25/2017		6.55				
8/11/2017		6.56				
10/3/2017	7.21		5.3	7.47		
11/15/2017		6.47				
4/2/2018	7.1		5.4			
4/3/2018				7.38		
6/4/2018	7.06		5.27	7.38		
6/5/2018		6.66				
10/1/2018	7.09		5.31	7.13		
10/2/2018		6.44				
3/12/2019	7.03		5.42	7.29		
4/1/2019				7.16		
4/2/2019	6.86	6.57	5.41			
8/22/2019		6.51				
9/23/2019	7.02		5.33	7.3		
10/21/2019		6.69				
3/2/2020	7.1		5.43	7.12		
3/24/2020		7.08				
3/25/2020	6.95		5.36	7.4		
6/16/2020	6.97			7.31		
8/24/2020		6.54				
8/25/2020			5.17	7.14		
8/28/2020	7.02					
9/15/2020	7.15	6.68	5.22	7.29		
9/16/2020					7.52	7.83
11/10/2020					7.27	7.84
12/15/2020					7.39	7.87
1/19/2021					7.39	7.86
3/10/2021	6.95					7.92
3/11/2021		6.65	5.8	7.33	7.46	
8/11/2021	6.98				7.4	
8/12/2021			5.05	7.31		
8/13/2021		6.56				7.77
2/1/2022	7.19	6.57	5.24	7.45	7.52	8.25
8/2/2022	7.03	6.67	4.57	7.02	7.15	7.9
1/23/2023				7.32		
1/24/2023	6.76	6.43	5.22		7.56	8.22

Time Series

Constituent: pH (s.u.) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		6.73	6.62	6.99		
10/27/2016		6.77		7.06		
11/7/2016			6.71			
1/13/2017			6.57			
1/27/2017		6.74		7.13		
5/25/2017		6.99		7.1		
6/3/2017			6.71			
8/11/2017				7.02		
10/2/2017		7.66	7.65			
11/15/2017		6.71	6.69	7.04		
6/5/2018		6.83	6.79	7.17		
10/2/2018		6.83		7.08		
10/5/2018			6.71			
4/2/2019		6.87				
4/3/2019			6.73	7.14		
8/22/2019		6.79	6.77			
8/23/2019				7.02		
10/21/2019			6.74	7.05		
10/22/2019		6.74				
3/24/2020				7.18		
3/25/2020		6.8	6.91			
5/22/2020					6.43	7.22
6/15/2020		6.8				
6/16/2020					6.29	6.92
8/25/2020					6.36	6.78
8/26/2020		6.96	6.73			
8/27/2020				7.15		
9/18/2020						6.97
9/21/2020		6.98			6.22	
9/25/2020	7.57					
9/28/2020			6.93	7.27		
11/11/2020	7.4					6.86
11/12/2020					6.13	
12/16/2020	7.39				6.61	6.93
1/20/2021	7.47				6.23	6.99
3/12/2021	7.52	6.95			6.18	7.05
3/15/2021			6.87	7.22		
8/13/2021	7.42					
8/16/2021		6.92	6.74	7.09		
8/19/2021					7.24	7.32
2/1/2022	7.45					
2/2/2022		7	6.92	7.28		
2/3/2022					6.56	7.01
8/2/2022	7.39					
8/4/2022		6.93	6.8	7.15	6.09	6.99
1/24/2023	7.15		6.75	7.05		
1/25/2023		6.32			6.32	6.89

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.005		<0.005	<0.005		
7/11/2016	<0.005		<0.005			
7/12/2016				<0.005		
8/30/2016	<0.005	<0.005	<0.005	<0.005		
10/19/2016	<0.005		<0.005	<0.005		
10/20/2016		<0.005				
12/6/2016	<0.005		<0.005	<0.005		
1/24/2017	<0.005		<0.005	<0.005		
1/25/2017		<0.005				
3/21/2017	<0.005		<0.005	<0.005		
5/22/2017	<0.005		<0.005	<0.005		
5/25/2017		<0.005				
8/11/2017		<0.005				
11/15/2017		<0.005				
4/2/2018	<0.005		<0.005			
4/3/2018				<0.005		
6/4/2018	<0.005		<0.005	<0.005		
6/5/2018		<0.005				
10/1/2018	<0.005		<0.005	<0.005		
10/2/2018		0.0015 (J)				
3/12/2019	<0.005		<0.005	<0.005		
4/1/2019				<0.005		
4/2/2019	<0.005		<0.005			
8/22/2019		<0.005				
9/23/2019	<0.005		<0.005	<0.005		
3/2/2020	<0.005		<0.005	<0.005		
3/25/2020	<0.005		<0.005	<0.005		
8/24/2020		<0.005				
8/25/2020			<0.005	<0.005		
8/28/2020	<0.005					
9/15/2020	<0.005		<0.005	<0.005		
9/16/2020					<0.005	<0.005
11/10/2020					<0.005	<0.005
12/15/2020					<0.005	<0.005
1/19/2021					<0.005	<0.005
8/11/2021	<0.005				<0.005	
8/12/2021			<0.005	<0.005		
8/13/2021		<0.005				<0.005
2/1/2022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
8/2/2022	<0.005	<0.005	0.0014 (J)	<0.005	<0.005	<0.005
1/23/2023				<0.005		
1/24/2023	<0.005	<0.005	<0.005		<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Selenium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		<0.005	<0.005	<0.005		
10/26/2016		<0.005		<0.005		
11/7/2016			<0.005			
1/13/2017			0.0011 (J)			
1/27/2017		<0.005		<0.005		
5/25/2017		<0.005		<0.005		
6/3/2017			<0.005			
8/11/2017				<0.005		
10/2/2017		0.002 (J)	<0.005			
11/15/2017		<0.005	<0.005	<0.005		
6/5/2018		<0.005	<0.005	<0.005		
10/2/2018		<0.005		0.0014 (J)		
10/5/2018			<0.005			
8/22/2019		<0.005	<0.005			
8/23/2019				<0.005		
5/22/2020					<0.005	<0.005
6/16/2020					<0.005	<0.005
8/25/2020					<0.005	<0.005
8/26/2020		<0.005	<0.005			
8/27/2020				<0.005		
9/18/2020						<0.005
9/21/2020					<0.005	
9/25/2020	<0.005					
11/11/2020	<0.005					<0.005
11/12/2020					<0.005	
12/16/2020	<0.005				<0.005	<0.005
1/20/2021	<0.005				<0.005	<0.005
8/13/2021	<0.005					
8/16/2021		<0.005	<0.005	<0.005		
8/19/2021					<0.005	<0.005
2/1/2022	<0.005					
2/2/2022		<0.005	<0.005	<0.005		
2/3/2022					<0.005	<0.005
8/2/2022	<0.005					
8/4/2022		<0.005	<0.005	<0.005	<0.005	<0.005
1/24/2023	<0.005		<0.005	<0.005		
1/25/2023		<0.005			<0.005	<0.005

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	66.9		48.6	42.3		
7/11/2016	41		45			
7/12/2016				44		
8/30/2016	36	49	42	40		
10/19/2016	46		44	43		
10/20/2016		49				
12/6/2016	59		44	43		
1/24/2017	46		46	48		
1/25/2017		48				
3/21/2017	63		46	45		
5/22/2017	77		48	46		
5/25/2017		48				
8/11/2017		47				
10/3/2017	42		47	48		
11/15/2017		49				
6/4/2018	71.8		47.8	46.6		
6/5/2018		48.9				
10/1/2018	49.1		48.1	48.6		
10/2/2018		48.6				
4/1/2019				50.4		
4/2/2019	84.3	39.6	48.7			
6/18/2019		44.5				
9/23/2019	70.2		47.2	43.9		
10/21/2019		45.6				
3/24/2020		25.9				
3/25/2020	85.9		46.3	50.5		
6/16/2020	88.2			49.5		
9/15/2020	47.3	41.4	51.5	44.7		
9/16/2020					43	43
11/10/2020					39	6.3
12/15/2020					38.8	6.7
1/19/2021					37.3	7.4
3/10/2021	49.6					<1
3/11/2021		40.7	52.9	50.4	38.6	
8/11/2021	48.9				30.5	
8/12/2021			47.4	38.6		
8/13/2021		42.1				56.1
2/1/2022	43.7	41.1	67.1	46	37.5	56.3
8/2/2022	58.1	41.5	86.9	43.5	37	13.2
1/23/2023				39.5		
1/24/2023	48.3	36.5	79.7		34.7	10.1

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Sulfate (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		290	280	72		
10/26/2016		280		71		
11/7/2016			300			
1/13/2017			270			
1/27/2017		290		74		
5/25/2017		280		73		
6/3/2017			270			
8/11/2017				71		
10/2/2017		300	330			
11/15/2017		300	280	70		
6/5/2018		273	241	74		
10/2/2018		328		80.7		
10/5/2018			271			
4/2/2019		256				
4/3/2019			230	75.2		
6/17/2019		243	219			
6/18/2019				75.3		
10/21/2019			238	78.5		
10/22/2019		266				
3/24/2020				74.6		
3/25/2020		226	116			
5/22/2020					345	56.1
6/15/2020		212				
6/16/2020					320	57.6
8/25/2020					353	62.8
9/18/2020						62.7
9/21/2020		225			352	
9/25/2020	6.8					
9/28/2020			182	86.2		
11/11/2020	11.2					62.3
11/12/2020					300	
12/16/2020	11.3				306	68.1
1/20/2021	14.2				335	66.6
3/12/2021	8.7	210			293	69.7
3/15/2021			177	74		
8/13/2021	8.1					
8/16/2021		211	158	74		
8/19/2021					264	64.4
2/1/2022	2.5					
2/2/2022		201	147	70.7		
2/3/2022					304	66.8
8/2/2022	2.1					
8/4/2022		230	162	73.1	331	68.3
1/24/2023	5.2		151	69.6		
1/25/2023		230			306	63.7

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	<0.001		<0.001	<0.001		
7/11/2016	<0.001		<0.001			
7/12/2016				<0.001		
8/30/2016	<0.001	<0.001	<0.001	<0.001		
10/19/2016	<0.001		<0.001	<0.001		
10/20/2016		<0.001				
12/6/2016	<0.001		<0.001	<0.001		
1/24/2017	<0.001		<0.001	<0.001		
1/25/2017		<0.001				
3/21/2017	<0.001		3E-05 (J)	<0.001		
5/22/2017	<0.001		<0.001	<0.001		
5/25/2017		<0.001				
8/11/2017		<0.001				
11/15/2017		<0.001				
4/2/2018	<0.001		<0.001			
4/3/2018				<0.001		
6/4/2018	<0.001		<0.001	<0.001		
6/5/2018		<0.001				
10/1/2018	<0.001		<0.001	<0.001		
10/2/2018		<0.001				
3/12/2019	<0.001		<0.001	<0.001		
4/1/2019				<0.001		
4/2/2019	<0.001		<0.001			
8/22/2019		<0.001				
9/23/2019	<0.001		<0.001	<0.001		
3/2/2020	<0.001		<0.001	<0.001		
3/25/2020	<0.001		<0.001	<0.001		
8/24/2020		<0.001				
8/25/2020			<0.001	<0.001		
8/28/2020	<0.001					
9/15/2020	<0.001		<0.001	<0.001		
9/16/2020					<0.001	<0.001
11/10/2020					<0.001	<0.001
12/15/2020					<0.001	<0.001
1/19/2021					<0.001	<0.001
8/11/2021	<0.001				<0.001	
8/12/2021			<0.001	<0.001		
8/13/2021		<0.001				<0.001
2/1/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
8/2/2022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1/23/2023				<0.001		
1/24/2023	<0.001	<0.001	<0.001		<0.001	<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Thallium (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		<0.001	<0.001	<0.001		
10/26/2016		<0.001		<0.001		
11/7/2016			<0.001			
1/13/2017			<0.001			
1/27/2017		<0.001		<0.001		
5/25/2017		<0.001		<0.001		
6/3/2017			<0.001			
8/11/2017				<0.001		
10/2/2017		<0.001	<0.001			
11/15/2017		<0.001	<0.001	<0.001		
6/5/2018		<0.001	<0.001	<0.001		
10/2/2018		<0.001		<0.001		
10/5/2018			<0.001			
8/22/2019		<0.001	<0.001			
8/23/2019				<0.001		
5/22/2020					<0.001	<0.001
6/16/2020					<0.001	<0.001
8/25/2020					<0.001	<0.001
8/26/2020		<0.001	<0.001			
8/27/2020				<0.001		
9/18/2020						<0.001
9/21/2020					<0.001	
9/25/2020	<0.001					
11/11/2020	<0.001					<0.001
11/12/2020					<0.001	
12/16/2020	<0.001				<0.001	<0.001
1/20/2021	<0.001				<0.001	<0.001
8/13/2021	<0.001					
8/16/2021		<0.001	<0.001	<0.001		
8/19/2021					<0.001	<0.001
2/1/2022	<0.001					
2/2/2022		<0.001	<0.001	<0.001		
2/3/2022					<0.001	<0.001
8/2/2022	<0.001					
8/4/2022		<0.001	<0.001	<0.001	<0.001	<0.001
1/24/2023	<0.001		<0.001	<0.001		
1/25/2023		<0.001			<0.001	<0.001

ND substitution: RL or RL/2 if <15% NDs.

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-122 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-43D (bg)	HGWA-44D (bg)
5/19/2016	421		143	267		
7/11/2016	363		125			
7/12/2016				249		
8/30/2016	330	280	168	254		
10/19/2016	380		176	357		
10/20/2016		265				
12/6/2016	377		145	285		
1/24/2017	342		129	300		
1/25/2017		371				
3/21/2017	340		103	288		
5/22/2017	338		92	263		
5/25/2017		237				
8/11/2017		253				
10/3/2017	343		127	300		
11/15/2017		261				
6/4/2018	415		140	266		
6/5/2018		276				
10/1/2018	354		135	291		
10/2/2018		256				
4/1/2019				284		
4/2/2019	452	814 (o)	133			
6/18/2019		233				
9/23/2019	442		129	268		
10/21/2019		296				
3/24/2020		278				
3/25/2020	496		138	284		
6/16/2020	632			448		
9/15/2020	265	267	124	258		
9/16/2020					272	270
11/10/2020					307	287
12/15/2020					289	295
1/19/2021					270	278
3/10/2021	348					289
3/11/2021		206	169	267	279	
8/11/2021	366				277	
8/12/2021			118	265		
8/13/2021		201				436
2/1/2022	270	203	156	350	156	444
8/2/2022	400	217	196	287	278	311
1/23/2023				293		
1/24/2023	369	246	164		271	363

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot

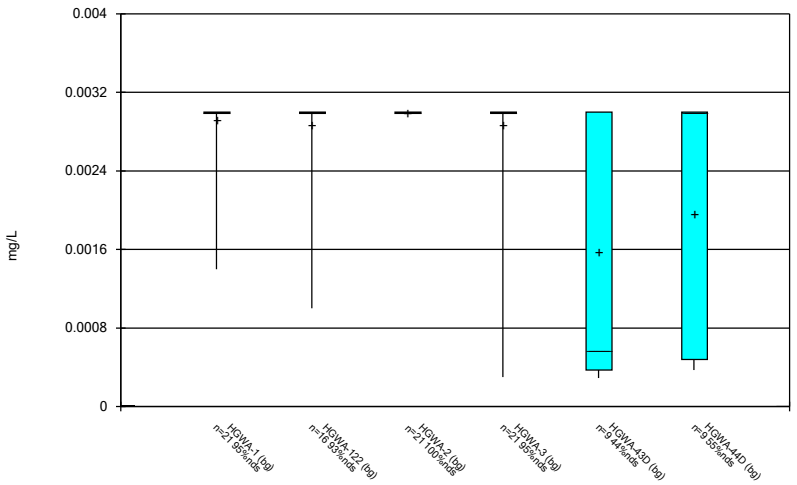
Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-45D (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016		700	876	379		
10/26/2016		795		409		
11/7/2016			1000			
1/13/2017			827			
1/27/2017		706		370		
5/25/2017		669		351		
6/3/2017			846			
8/11/2017				322		
10/2/2017		672	884			
11/15/2017		721	838	350		
6/5/2018		723	823	360		
10/2/2018		703		363		
10/5/2018			813			
4/2/2019		540				
4/3/2019			785	369		
6/17/2019			751			
10/21/2019			771	357		
10/22/2019		693				
3/24/2020				355		
3/25/2020		665	521			
5/22/2020					809	496
6/15/2020		685				
6/16/2020					665	508
8/25/2020					772	505
9/18/2020						452
9/21/2020		272			956	
9/25/2020	263					
9/28/2020			<10	176		
11/11/2020	276					468
11/12/2020					694	
12/16/2020	294				816	536
1/20/2021	289				726	472
3/12/2021	260	584			664	474
3/15/2021			614	340		
8/13/2021	272					
8/16/2021		632	626	352		
8/19/2021					732	488
2/1/2022	268					
2/2/2022		612	638	347		
2/3/2022					726	466
8/2/2022	261					
8/4/2022		632	640	334	706	510
1/24/2023	289		602	350		
1/25/2023		656			798	517

ND substitution: RL or RL/2 if <15% NDs.

FIGURE B.

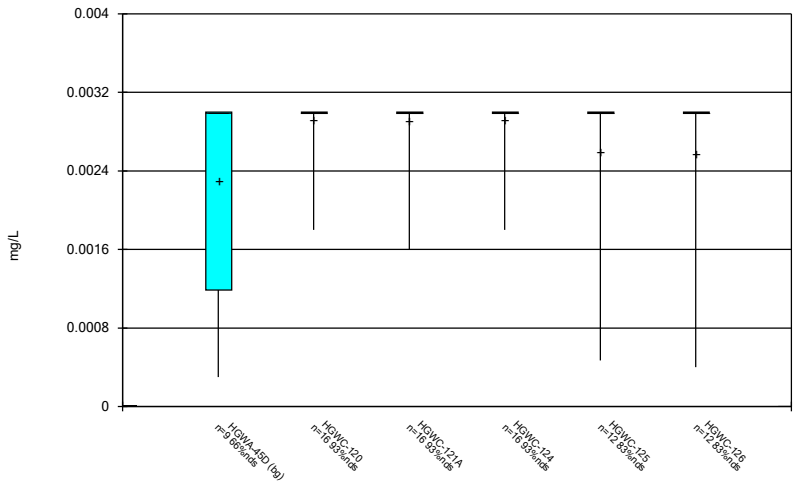
Box & Whiskers Plot



Constituent: Antimony Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

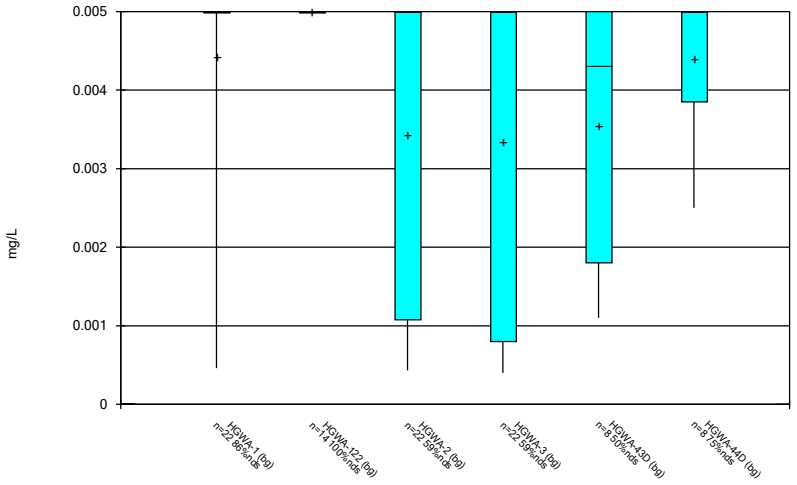
Box & Whiskers Plot



Constituent: Antimony Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

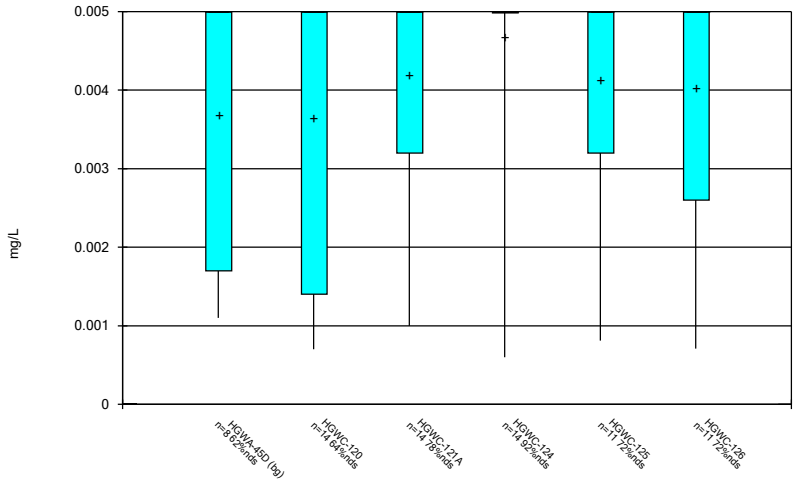
Box & Whiskers Plot



Constituent: Arsenic Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

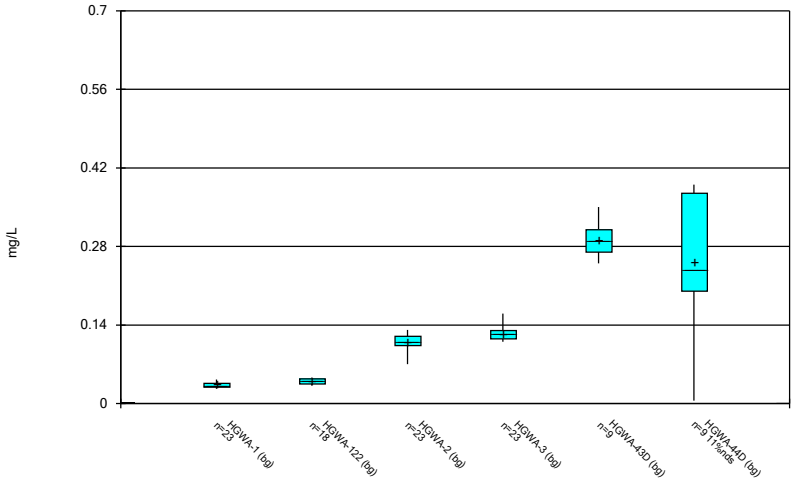
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Arsenic Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

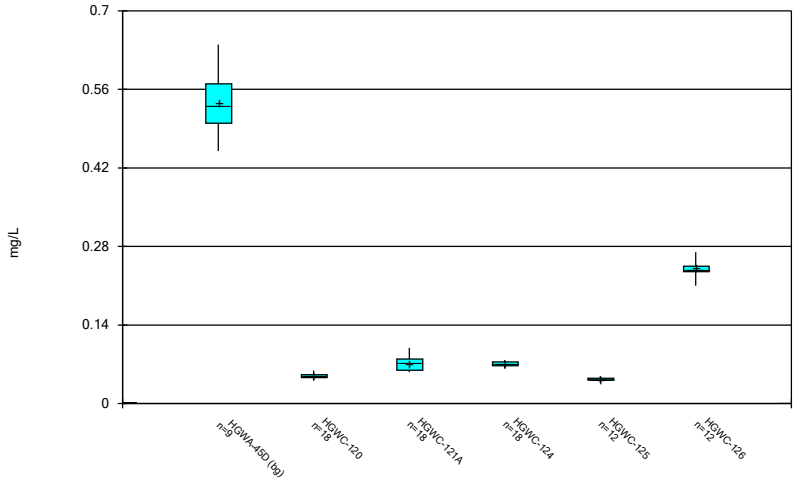
Box & Whiskers Plot



Constituent: Barium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

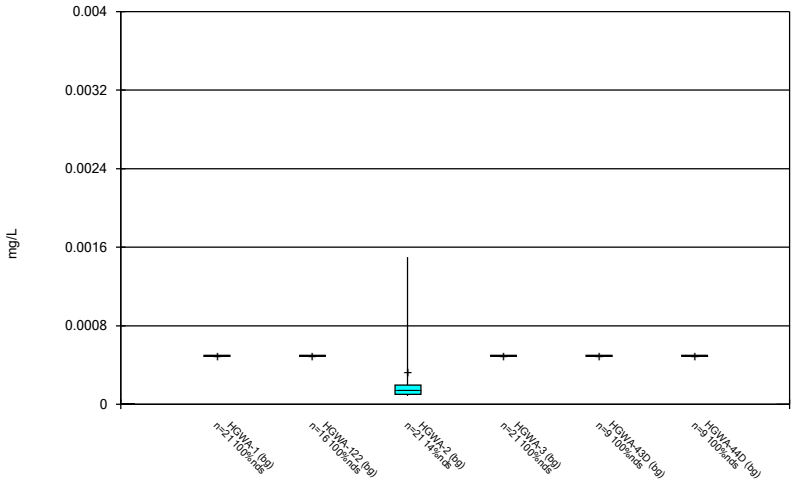
Box & Whiskers Plot



Constituent: Barium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

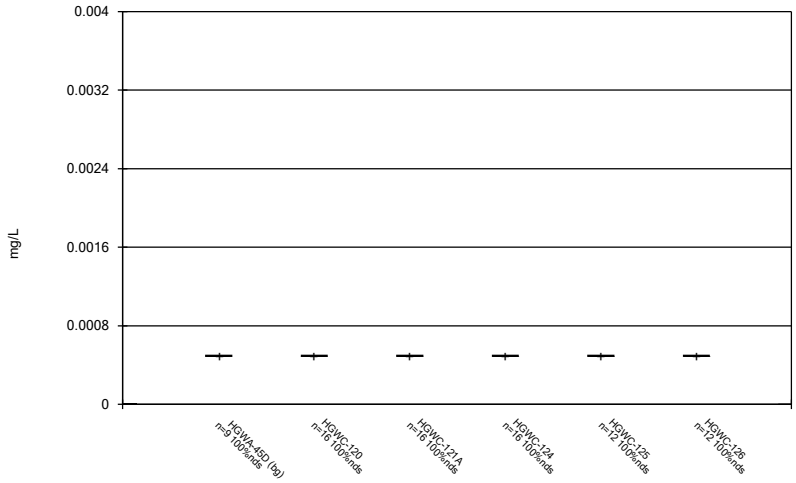
Box & Whiskers Plot



Constituent: Beryllium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

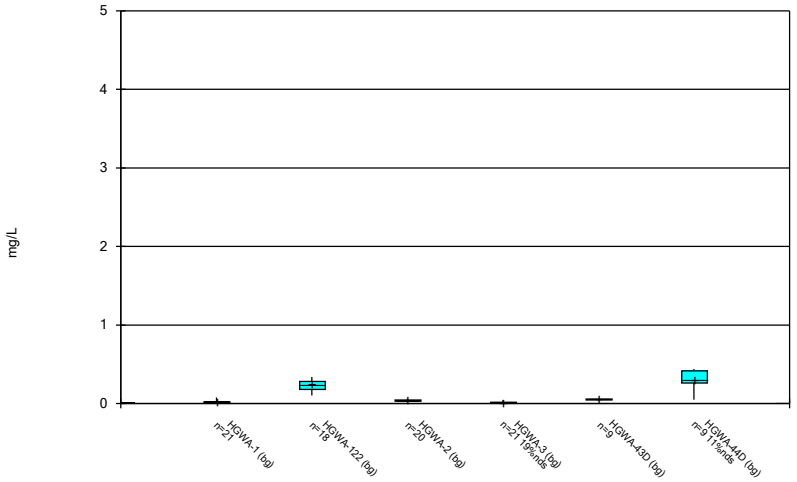
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Beryllium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

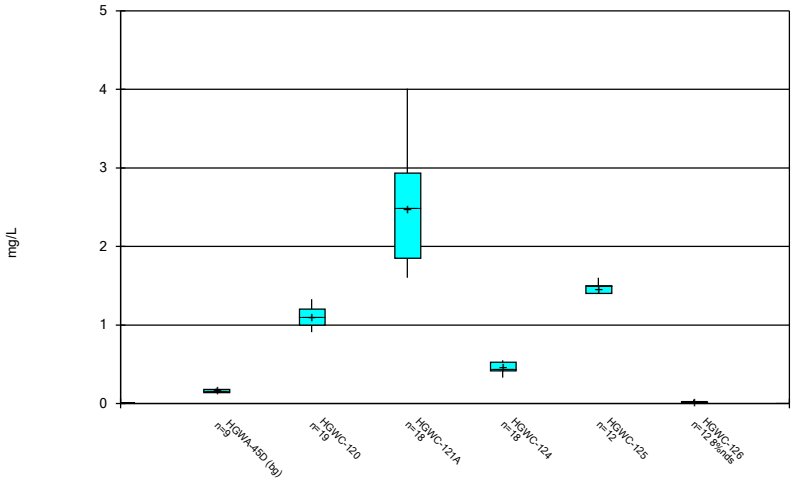
Box & Whiskers Plot



Constituent: Boron Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

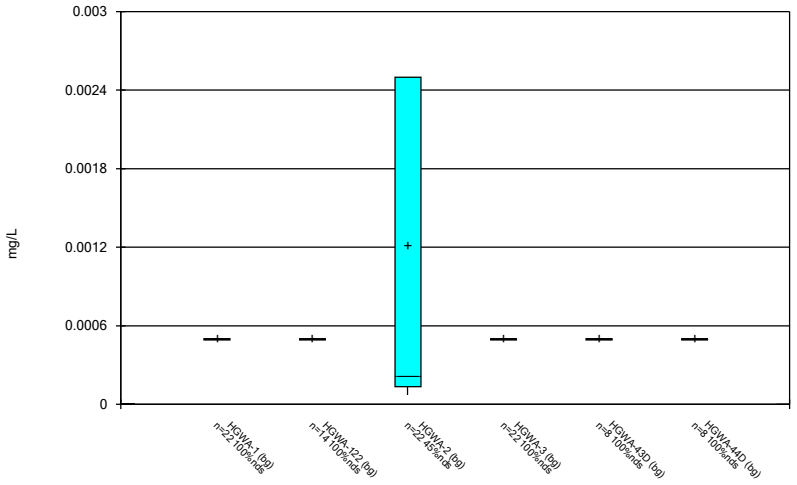
Box & Whiskers Plot



Constituent: Boron Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

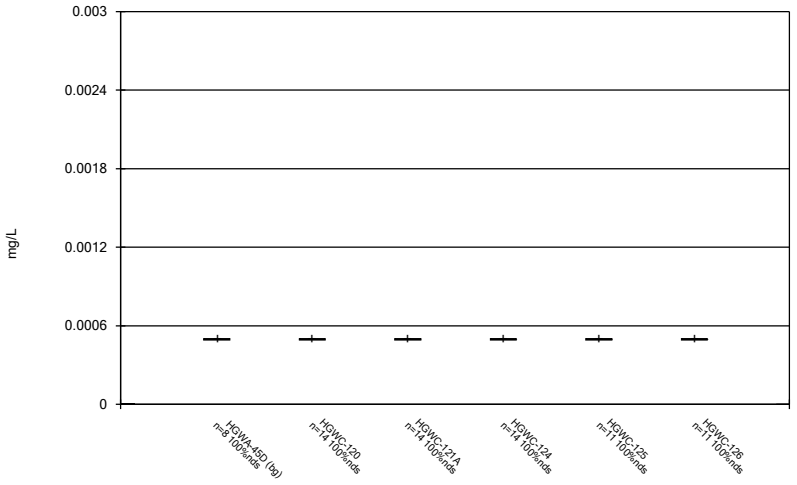
Box & Whiskers Plot



Constituent: Cadmium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

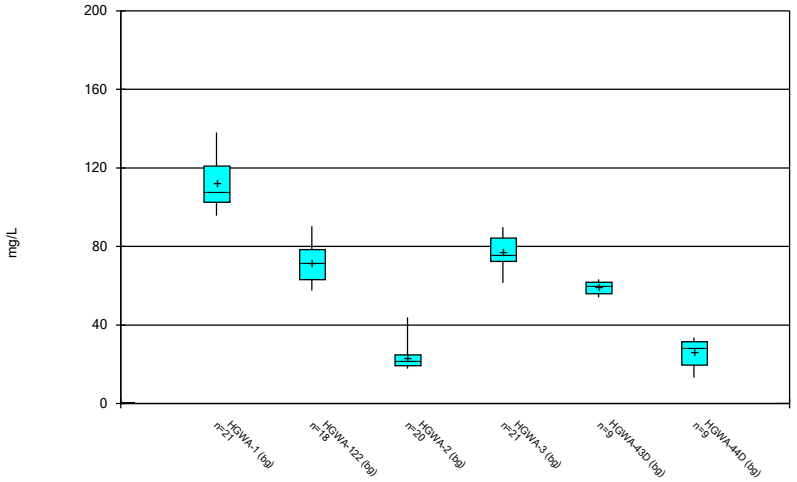
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Cadmium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

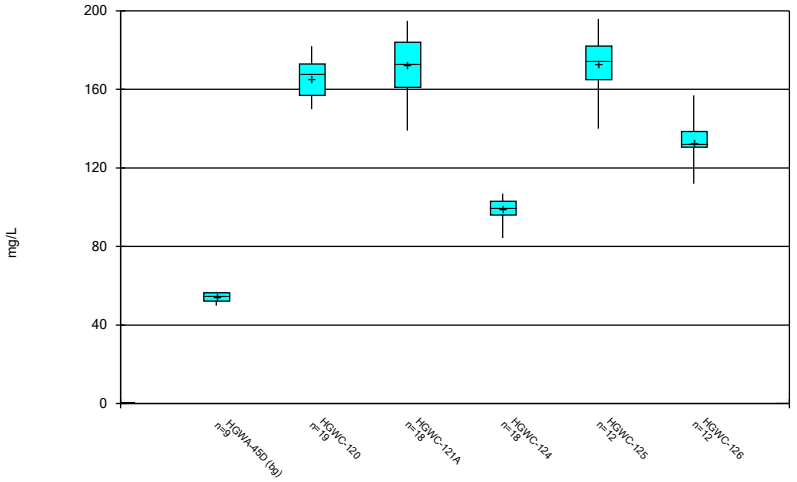
Box & Whiskers Plot



Constituent: Calcium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

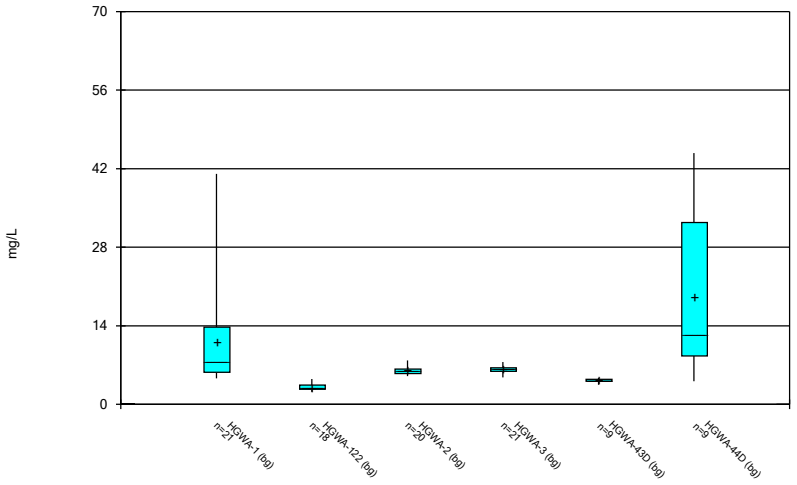
Box & Whiskers Plot



Constituent: Calcium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

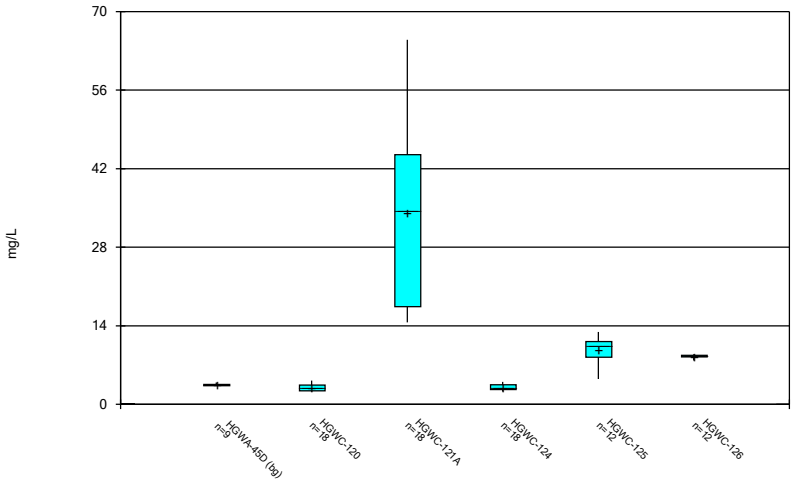
Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

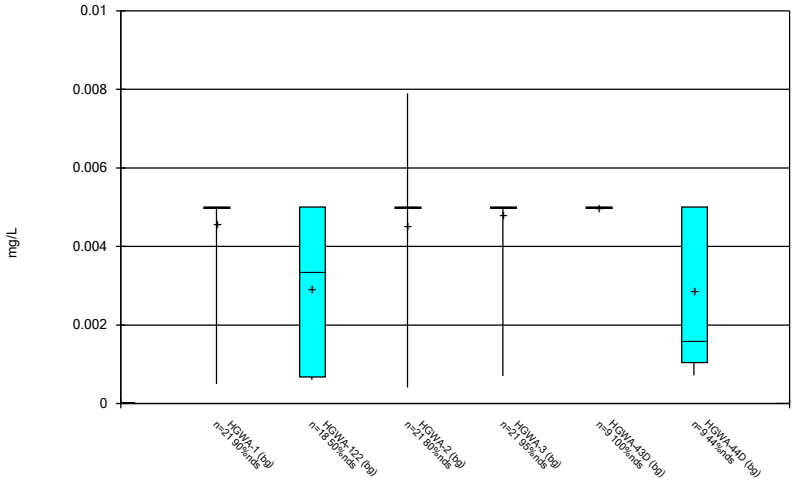
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Chloride Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

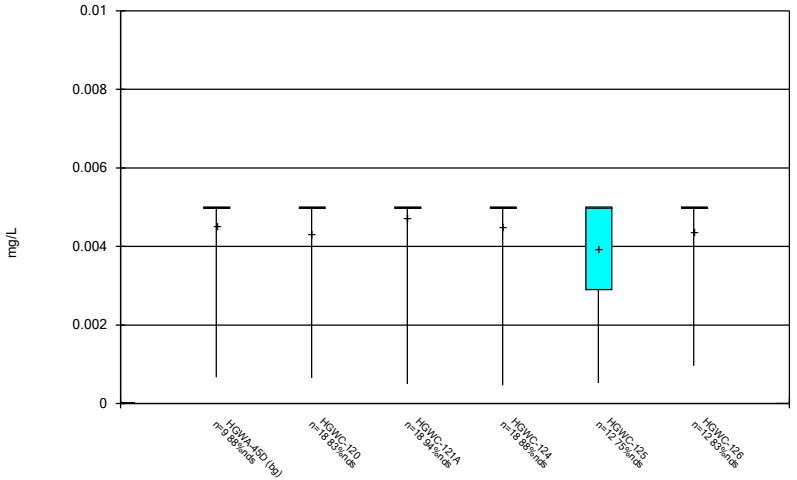
Box & Whiskers Plot



Constituent: Chromium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

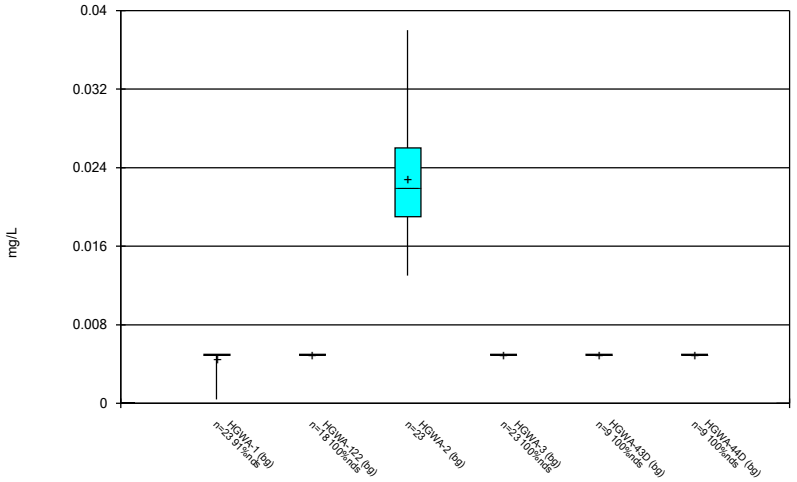
Box & Whiskers Plot



Constituent: Chromium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

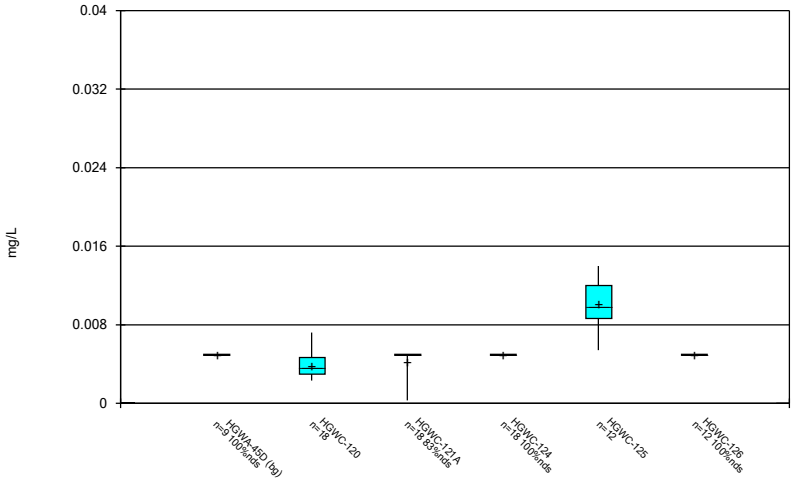
Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

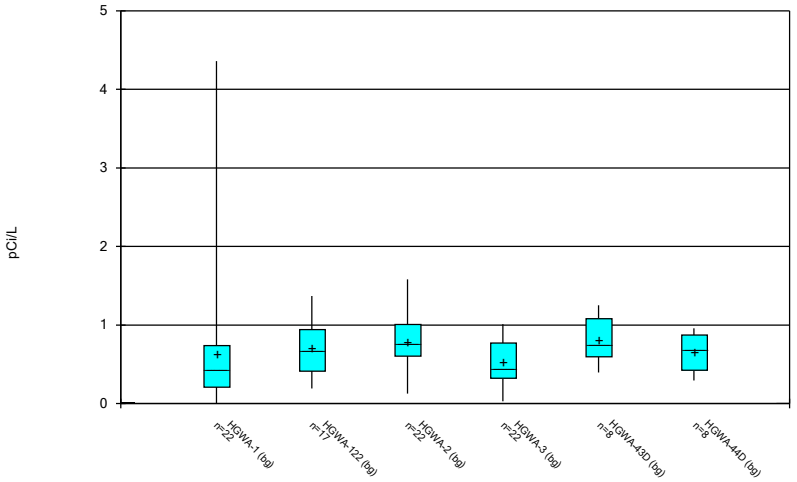
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Cobalt Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

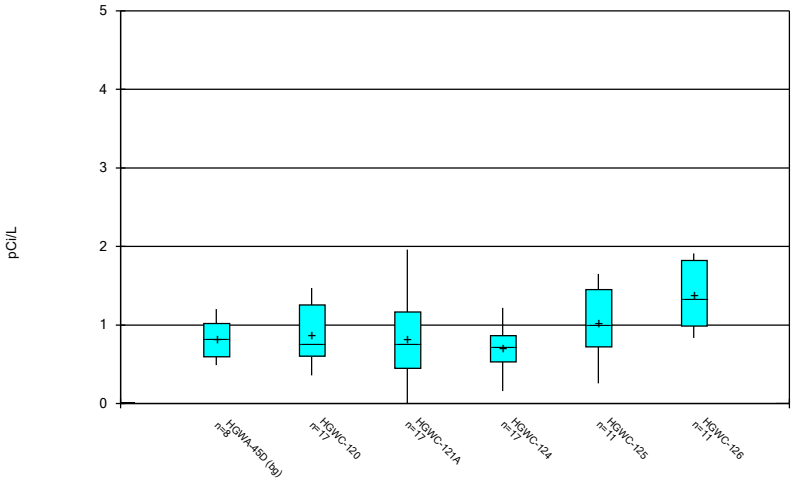
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

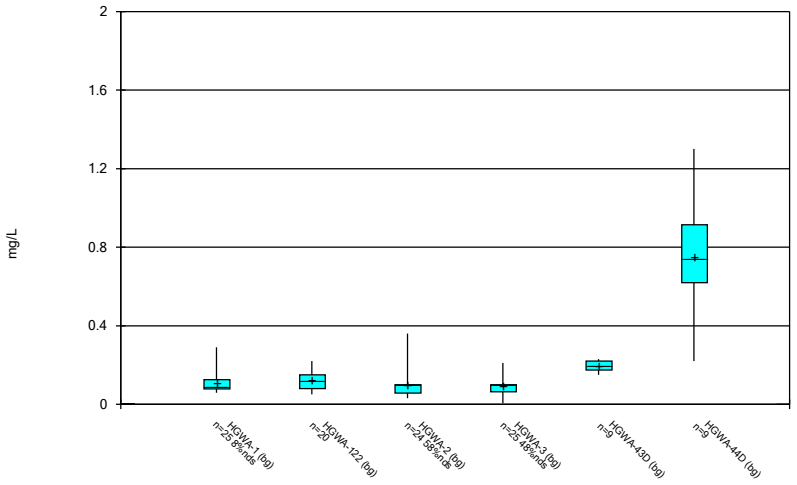
Box & Whiskers Plot



Constituent: Combined Radium 226 + 228 Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

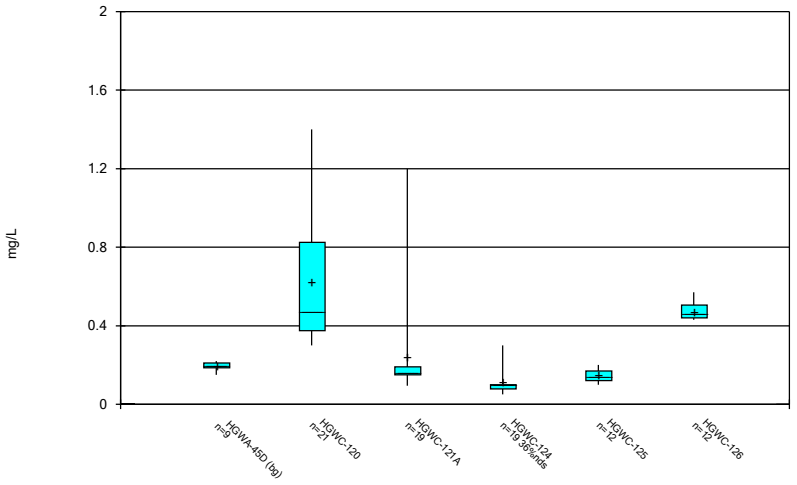
Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

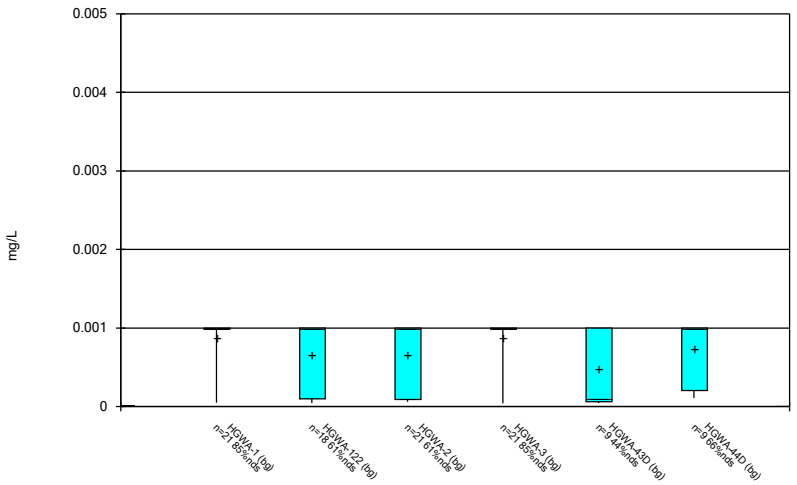
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Fluoride Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

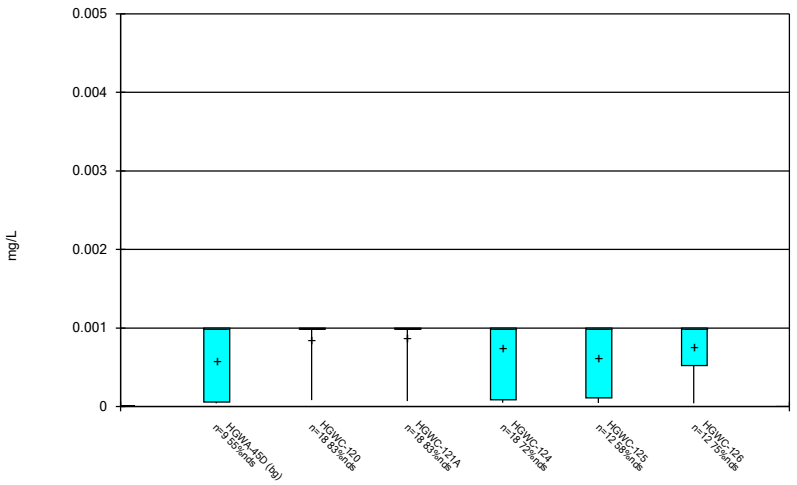
Box & Whiskers Plot



Constituent: Lead Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

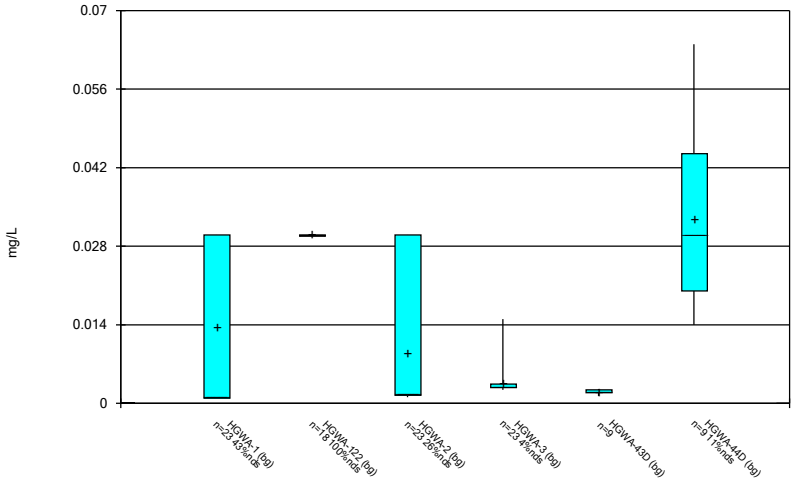
Box & Whiskers Plot



Constituent: Lead Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

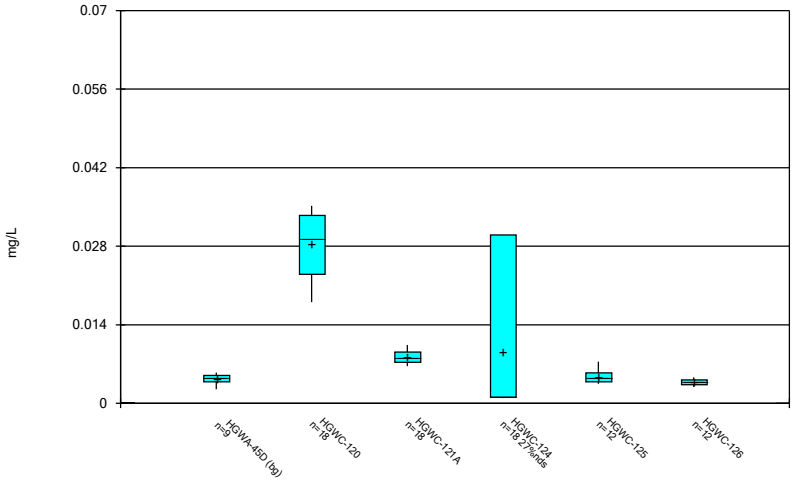
Box & Whiskers Plot



Constituent: Lithium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

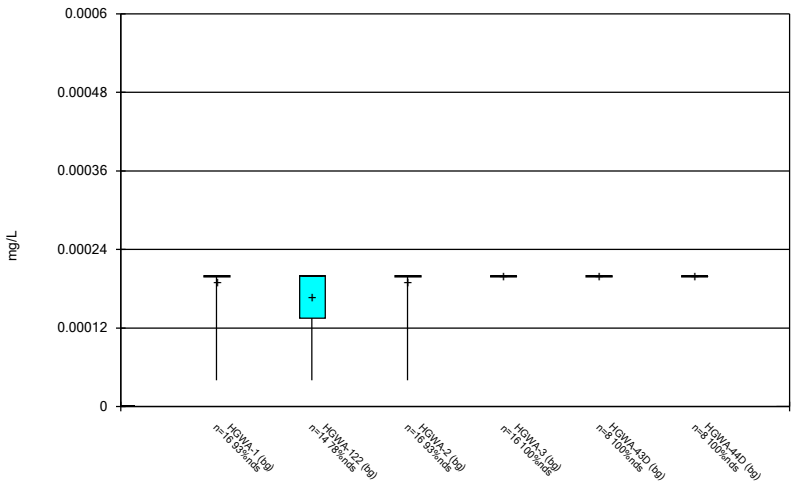
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Lithium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

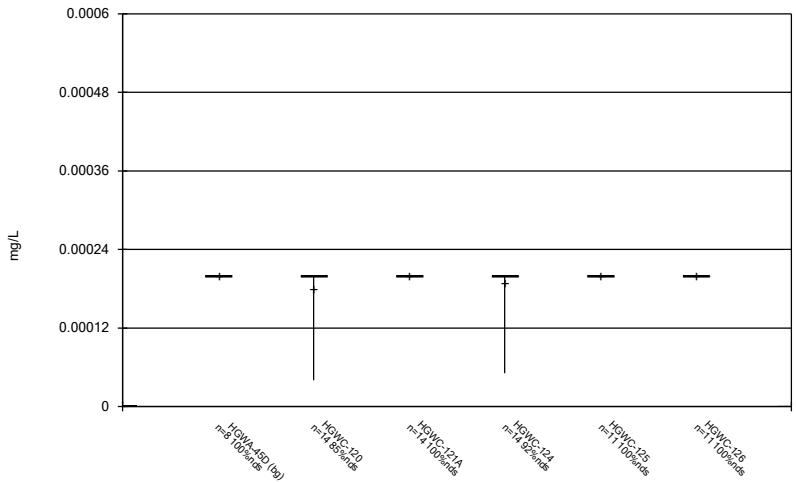
Box & Whiskers Plot



Constituent: Mercury Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

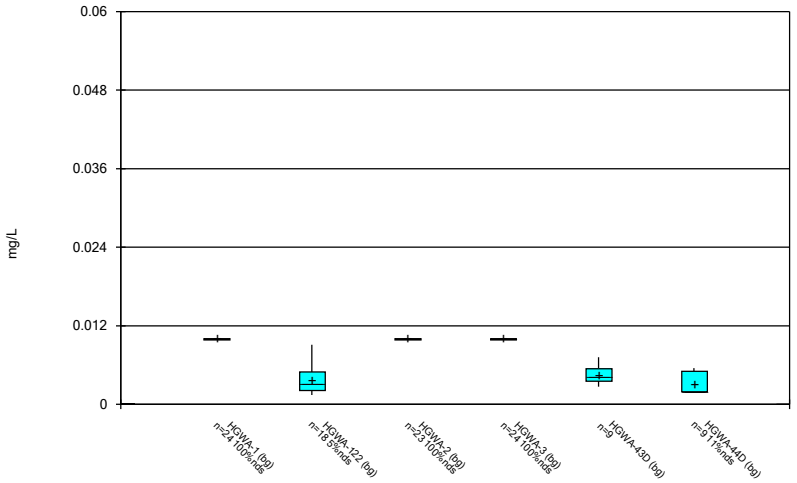
Box & Whiskers Plot



Constituent: Mercury Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

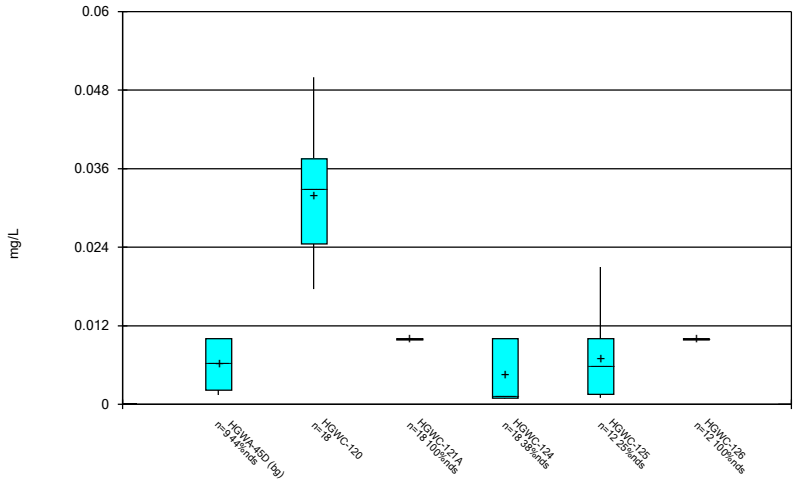
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

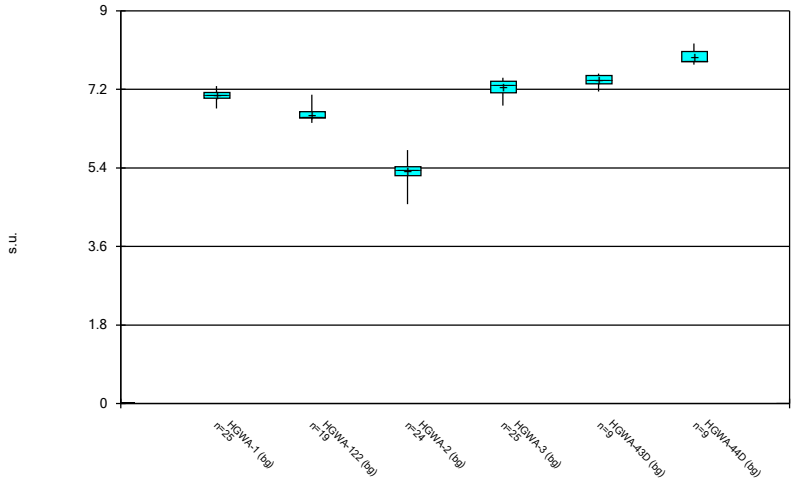
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

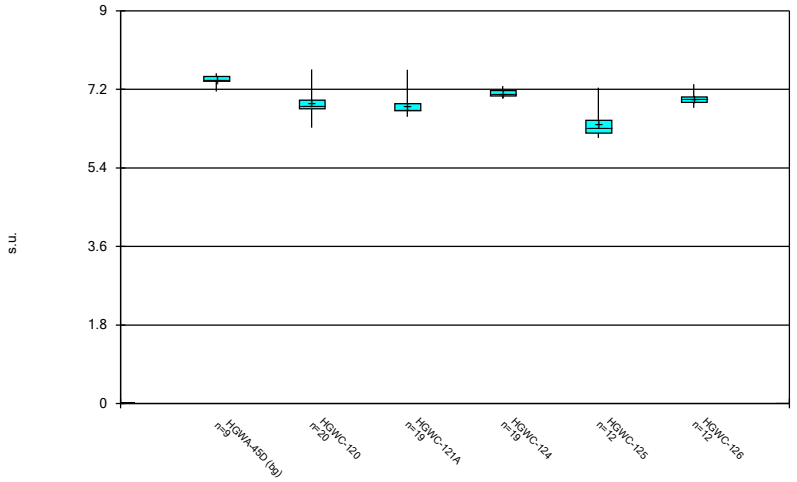
Box & Whiskers Plot



Constituent: pH Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

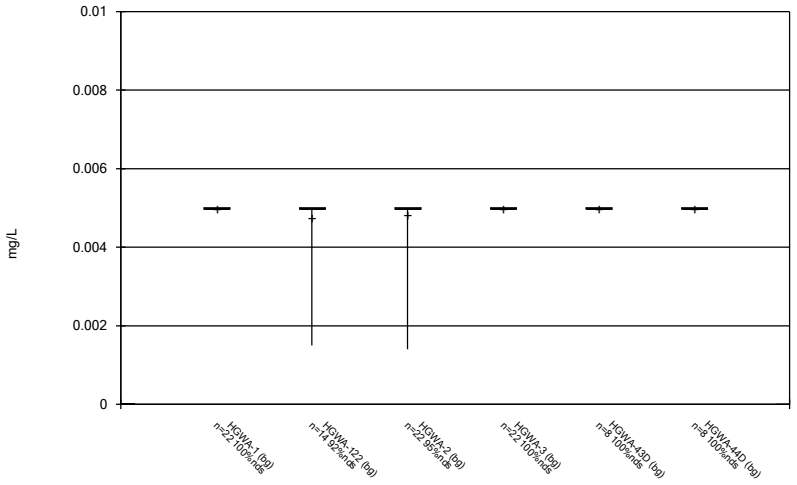
Box & Whiskers Plot



Constituent: pH Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

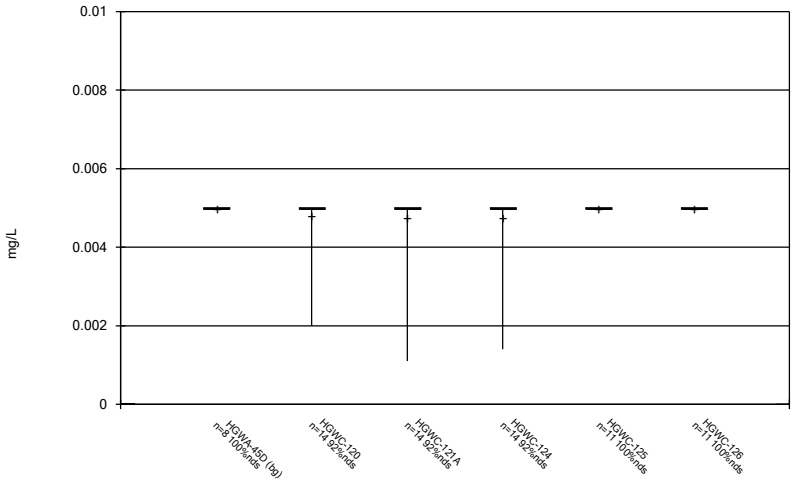
Box & Whiskers Plot



Constituent: Selenium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

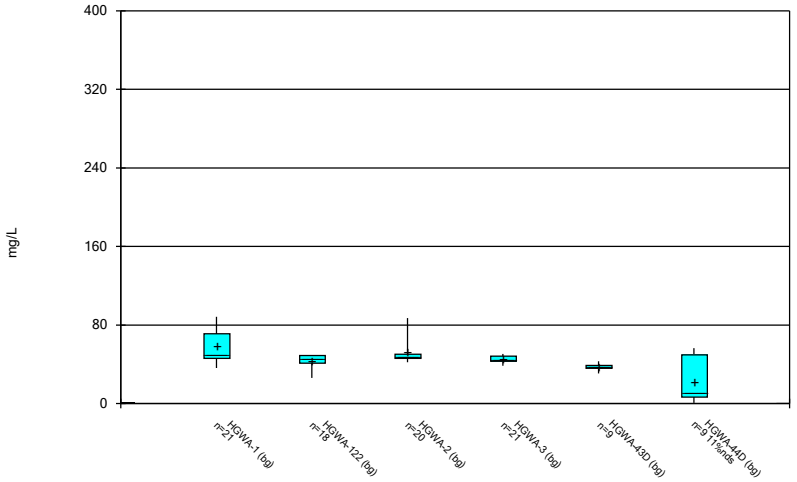
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Selenium Analysis Run 5/16/2023 2:19 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

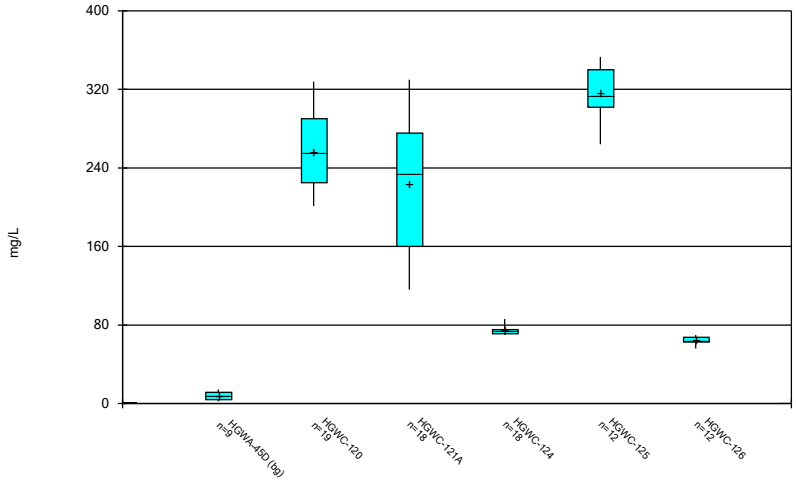
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 5/16/2023 2:20 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

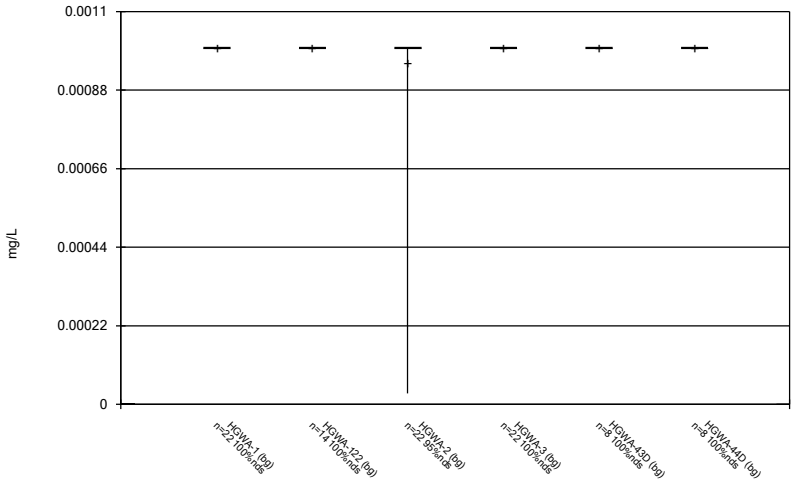
Box & Whiskers Plot



Constituent: Sulfate Analysis Run 5/16/2023 2:20 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

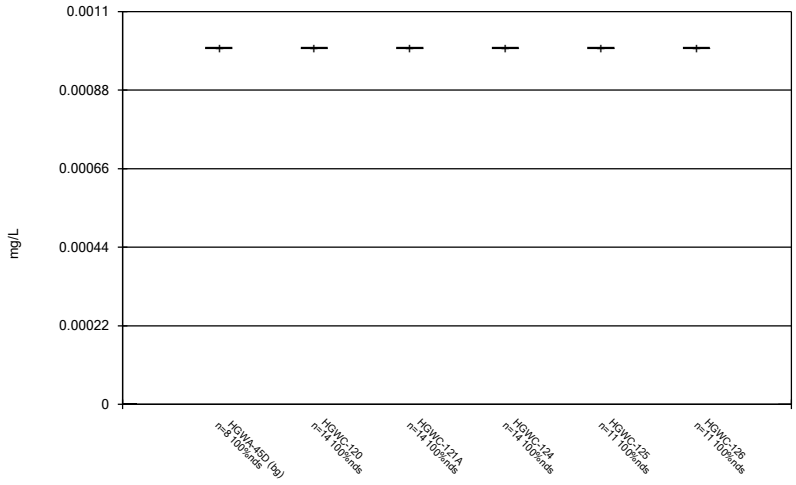
Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/16/2023 2:20 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

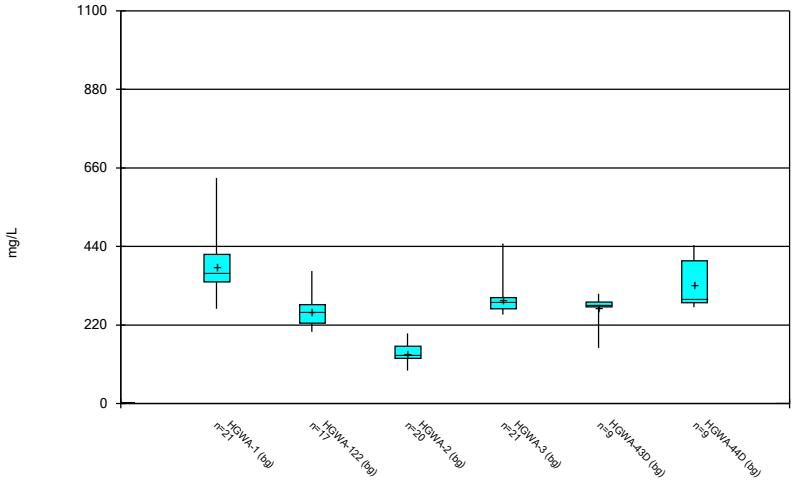
Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 5/16/2023 2:20 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

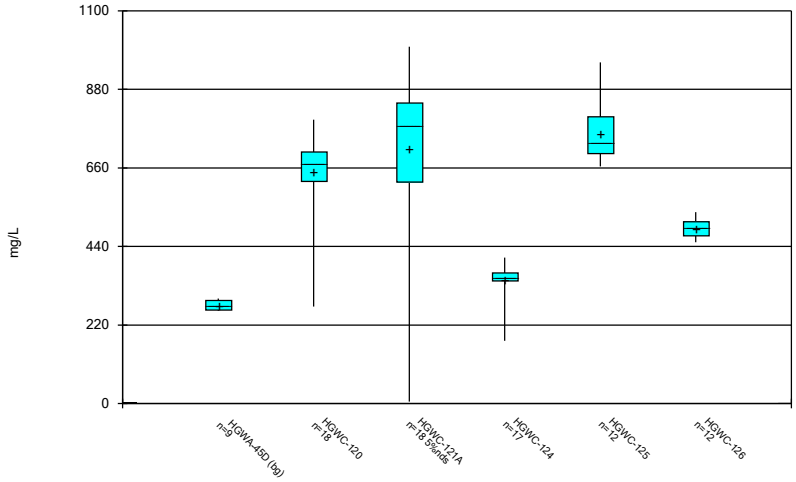
Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/16/2023 2:20 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids Analysis Run 5/16/2023 2:20 PM View: Time Series & Box Plot
Plant Hammond Client: Southern Company Data: Hammond AP-3

FIGURE C.

Outlier Summary

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 3/29/2023, 4:06 PM

	HGWA-122 Total Dissolved Solids (mg/L)
4/2/2019	814 (o)

FIGURE D.

Interwell Prediction Limits - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 5/12/2023, 2:06 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-120**	**0.44**	**n/a**	**1/25/2023**	**0.94**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-121A**	**0.44**	**n/a**	**1/24/2023**	**1.6**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-125**	**0.44**	**n/a**	**1/25/2023**	**1.4**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-120**	**138**	**n/a**	**1/25/2023**	**161**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-121A**	**138**	**n/a**	**1/24/2023**	**156**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-125**	**138**	**n/a**	**1/25/2023**	**174**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-120**	**88.2**	**n/a**	**1/25/2023**	**230**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-121A**	**88.2**	**n/a**	**1/24/2023**	**151**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-125**	**88.2**	**n/a**	**1/25/2023**	**306**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-120**	**632**	**n/a**	**1/25/2023**	**656**	**Yes**	**106**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001759**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	**HGWC-125**	**632**	**n/a**	**1/25/2023**	**798**	**Yes**	**106**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001759**	**NP Inter (normality) 1 of 2**

Interwell Prediction Limits - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 5/12/2023, 2:06 PM

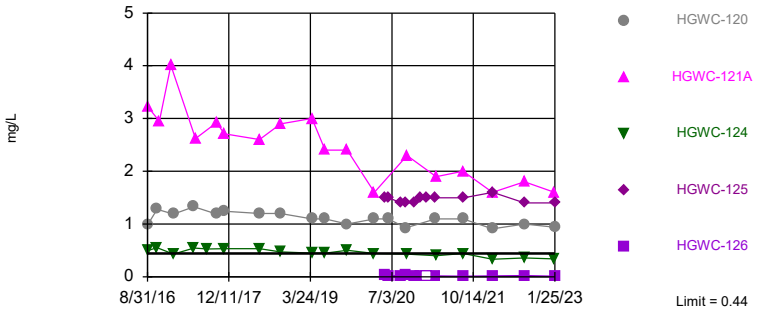
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**HGWC-120**	**0.44**	**n/a**	**1/25/2023**	**0.94**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**HGWC-121A**	**0.44**	**n/a**	**1/24/2023**	**1.6**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	HGWC-124	0.44	n/a	1/24/2023	0.34	No	107	n/a	n/a	4.673	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Boron (mg/L)	**HGWC-125**	**0.44**	**n/a**	**1/25/2023**	**1.4**	**Yes**	**107**	**n/a**	**n/a**	**4.673**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	HGWC-126	0.44	n/a	1/25/2023	0.014J	No	107	n/a	n/a	4.673	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Calcium (mg/L)	**HGWC-120**	**138**	**n/a**	**1/25/2023**	**161**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**HGWC-121A**	**138**	**n/a**	**1/24/2023**	**156**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	HGWC-124	138	n/a	1/24/2023	96.2	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Calcium (mg/L)	**HGWC-125**	**138**	**n/a**	**1/25/2023**	**174**	**Yes**	**107**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	HGWC-126	138	n/a	1/25/2023	132	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-120	44.8	n/a	1/25/2023	2.6	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-121A	44.8	n/a	1/24/2023	14.6	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-124	44.8	n/a	1/24/2023	2.5	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-125	44.8	n/a	1/25/2023	8.7	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Chloride (mg/L)	HGWC-126	44.8	n/a	1/25/2023	8.7	No	107	n/a	n/a	0	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-120	1.3	n/a	1/25/2023	0.42	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-121A	1.3	n/a	1/24/2023	0.18	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-124	1.3	n/a	1/24/2023	0.068J	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-125	1.3	n/a	1/25/2023	0.17	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
Fluoride (mg/L)	HGWC-126	1.3	n/a	1/25/2023	0.57	No	121	n/a	n/a	23.14	n/a	n/a	0.0001333	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-120	8.25	4.57	1/25/2023	6.87	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-121A	8.25	4.57	1/24/2023	6.75	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-124	8.25	4.57	1/24/2023	7.05	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-125	8.25	4.57	1/25/2023	6.32	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
pH (s.u.)	HGWC-126	8.25	4.57	1/25/2023	6.89	No	120	n/a	n/a	0	n/a	n/a	0.0002702	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-120**	**88.2**	**n/a**	**1/25/2023**	**230**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**HGWC-121A**	**88.2**	**n/a**	**1/24/2023**	**151**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	HGWC-124	88.2	n/a	1/24/2023	69.6	No	107	n/a	n/a	0.9346	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**HGWC-125**	**88.2**	**n/a**	**1/25/2023**	**306**	**Yes**	**107**	**n/a**	**n/a**	**0.9346**	**n/a**	**n/a**	**0.000173**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	HGWC-126	88.2	n/a	1/25/2023	63.7	No	107	n/a	n/a	0.9346	n/a	n/a	0.000173	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**HGWC-120**	**632**	**n/a**	**1/25/2023**	**656**	**Yes**	**106**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001759**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	HGWC-121A	632	n/a	1/24/2023	602	No	106	n/a	n/a	0	n/a	n/a	0.0001759	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	HGWC-124	632	n/a	1/24/2023	350	No	106	n/a	n/a	0	n/a	n/a	0.0001759	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**HGWC-125**	**632**	**n/a**	**1/25/2023**	**798**	**Yes**	**106**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0001759**	**NP Inter (normality) 1 of 2**
Total Dissolved Solids (mg/L)	HGWC-126	632	n/a	1/25/2023	517	No	106	n/a	n/a	0	n/a	n/a	0.0001759	NP Inter (normality) 1 of 2

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: HGWC-120, HGWC-121A, HGWC-125

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 107 background values. 4.673% NDs. Annual per-constituent alpha = 0.001728. Individual comparison alpha = 0.000173 (1 of 2). Comparing 5 points to limit.

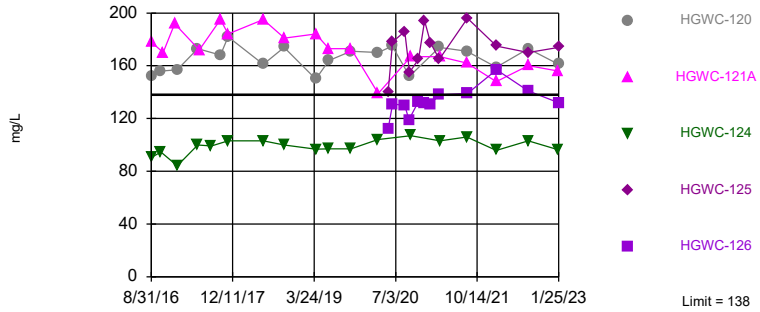
Constituent: Boron Analysis Run 5/12/2023 2:05 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Exceeds Limit: HGWC-120, HGWC-121A, HGWC-125

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 107 background values. Annual per-constituent alpha = 0.001728. Individual comparison alpha = 0.000173 (1 of 2). Comparing 5 points to limit.

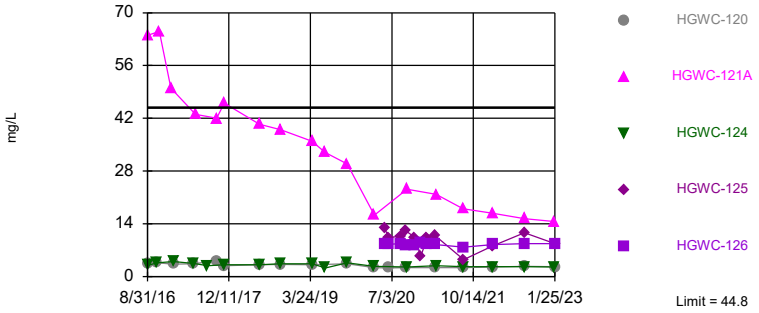
Constituent: Calcium Analysis Run 5/12/2023 2:05 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Within Limit

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 107 background values. Annual per-constituent alpha = 0.001728. Individual comparison alpha = 0.000173 (1 of 2). Comparing 5 points to limit.

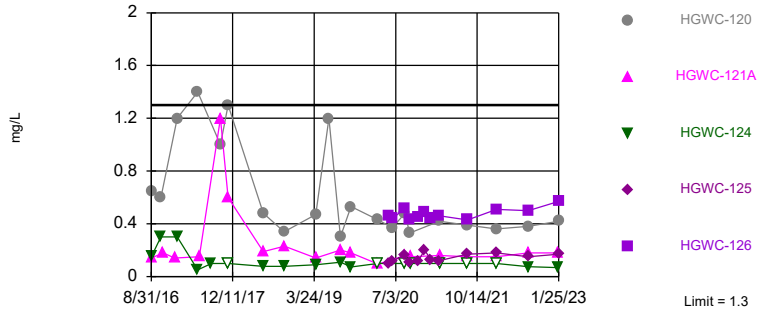
Constituent: Chloride Analysis Run 5/12/2023 2:05 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



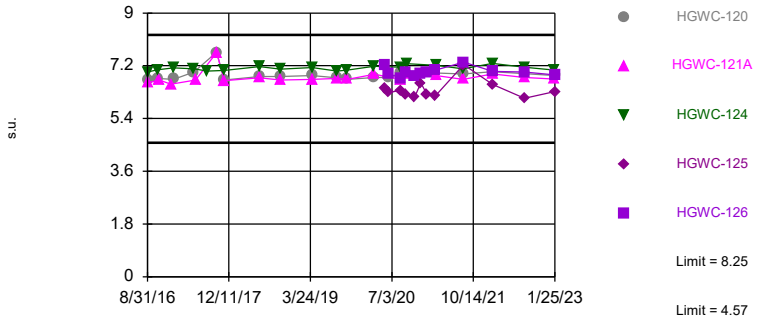
Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 121 background values. 23.14% NDs. Annual per-constituent alpha = 0.001332. Individual comparison alpha = 0.0001333 (1 of 2). Comparing 5 points to limit.

Constituent: Fluoride Analysis Run 5/12/2023 2:05 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Within Limits

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 120 background values. Annual per-constituent alpha = 0.0027. Individual comparison alpha = 0.0002702 (1 of 2). Comparing 5 points to limit.

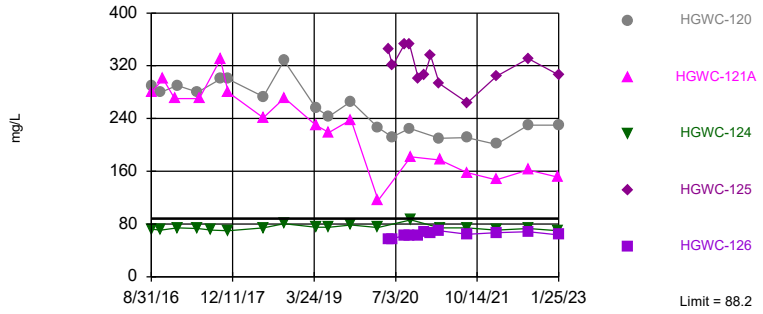
Constituent: pH Analysis Run 5/12/2023 2:05 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Exceeds Limit: HGWC-120, HGWC-121A, HGWC-125

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 107 background values. 0.9346% NDs. Annual per-constituent alpha = 0.001728. Individual comparison alpha = 0.000173 (1 of 2). Comparing 5 points to limit.

Constituent: Sulfate Analysis Run 5/12/2023 2:05 PM View: Interwell PL

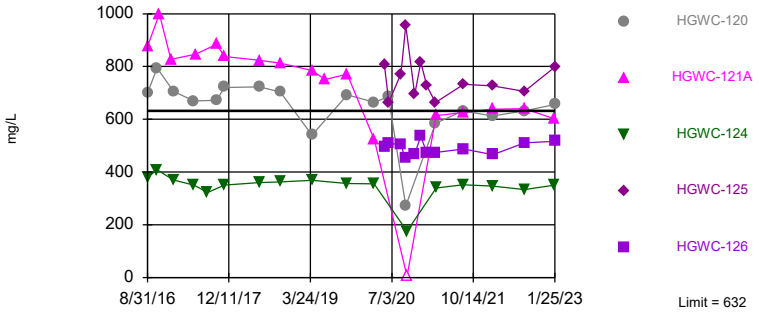
Plant Hammond Client: Southern Company Data: Hammond AP-3

Hollow symbols indicate censored values.

Exceeds Limit: HGWC-120, HGWC-125

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 106 background values. Annual per-constituent alpha = 0.001757. Individual comparison alpha = 0.0001759 (1 of 2). Comparing 5 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/12/2023 2:05 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/12/2023 2:06 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
5/19/2016	0.0214 (J)	<0.04	0.0321 (J)						
7/11/2016	0.0142 (J)		0.0337 (J)						
7/12/2016		0.0074 (J)							
8/30/2016	0.0074 (J)	<0.04	0.0173 (J)	0.277					
8/31/2016					0.981	3.23	0.494		
10/19/2016	0.0224 (J)	0.0085 (J)	0.0341 (J)						
10/20/2016				0.336					
10/26/2016					1.28		0.55		
11/7/2016						2.95			
12/6/2016	0.0211 (J)	0.0085 (J)	0.0326 (J)						
1/13/2017						4.01			
1/24/2017	0.0165 (J)	0.01 (J)	0.0365 (J)						
1/25/2017				0.274					
1/27/2017					1.19		0.428		
3/21/2017	0.0187 (J)	0.0079 (J)	0.0349 (J)						
5/22/2017	0.0782	0.0131 (J)	0.0475						
5/25/2017				0.298	1.33		0.544		
6/3/2017						2.62			
8/11/2017				0.285			0.524		
10/2/2017					1.19	2.92			
10/3/2017	0.0198 (J)	0.0097 (J)	0.0386 (J)						
11/15/2017				0.322	1.24	2.71	0.531		
6/4/2018	0.02 (J)	0.017 (J)	0.036 (J)						
6/5/2018				0.24	1.2	2.6	0.53		
10/1/2018	0.013 (J)	0.0061 (J)	0.035 (J)						
10/2/2018				0.28	1.2		0.47		
10/5/2018						2.9			
4/1/2019		0.0066 (J)							
4/2/2019	0.016 (J)		0.034 (J)	0.18	1.1				
4/3/2019						3	0.45		
6/17/2019					1.1	2.4			
6/18/2019				0.25			0.45		
9/23/2019	0.021 (J)	0.0081 (J)	0.04 (J)						
10/21/2019				0.25		2.4	0.5		
10/22/2019					1				
3/24/2020				0.1			0.44		
3/25/2020	0.025 (J)	0.0096 (J)	0.039 (J)		1.1	1.6			
5/22/2020								1.5	0.026 (J)
6/15/2020					1.1				
6/16/2020	0.021 (J)	0.01 (J)						1.5	0.023 (J)
8/25/2020								1.4	0.016 (J)
9/15/2020	0.017 (J)	0.0071 (J)	0.044 (J)	0.22					
9/16/2020									
9/18/2020									0.041 (J)
9/21/2020					0.93			1.4	
9/25/2020									
9/28/2020						2.3	0.43		
11/10/2020									
11/11/2020									0.009 (J)
11/12/2020								1.4	
12/15/2020									
12/16/2020								1.5	0.011 (J)

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/12/2023 2:06 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
1/19/2021									
1/20/2021								1.5	<0.04
3/10/2021	0.015 (J)								
3/11/2021		0.015 (J)	0.056	0.2					
3/12/2021					1.1			1.5	0.016 (J)
3/15/2021						1.9	0.4		
8/11/2021	0.02 (J)								
8/12/2021		<0.04	0.044						
8/13/2021				0.19					
8/16/2021					1.1	2	0.44		
8/19/2021								1.5	0.011 (J)
2/1/2022	0.016 (J)	0.011 (J)	0.056	0.17					
2/2/2022					0.91	1.6	0.33		
2/3/2022								1.6	0.016 (J)
8/2/2022	0.012 (J)	<0.04	0.047	0.18					
8/4/2022					1	1.8	0.36	1.4	0.023 (J)
1/23/2023		0.012 (J)							
1/24/2023	0.015 (J)		0.046	0.17		1.6	0.34		
1/25/2023					0.94			1.4	0.014 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/12/2023 2:06 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	0.23	0.061 (J)	
9/18/2020			
9/21/2020			
9/25/2020			0.16
9/28/2020			
11/10/2020	0.29	0.057 (J)	
11/11/2020			0.17
11/12/2020			
12/15/2020	0.31	0.052 (J)	
12/16/2020			0.16

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/12/2023 2:06 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
1/19/2021	<0.04	0.049 (J)	
1/20/2021			0.19
3/10/2021	0.39		
3/11/2021		0.06	
3/12/2021			0.19
3/15/2021			
8/11/2021		0.042	
8/12/2021			
8/13/2021	0.31		0.15
8/16/2021			
8/19/2021			
2/1/2022	0.44	0.05	0.14
2/2/2022			
2/3/2022			
8/2/2022	0.31	0.043	0.14
8/4/2022			
1/23/2023			
1/24/2023	0.44	0.037 (J)	0.14
1/25/2023			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/12/2023 2:06 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
5/19/2016	138	76.2	22.9						
7/11/2016	97.2		22.3						
7/12/2016		61.5							
8/30/2016	97.5	65.1	26.4	71.3					
8/31/2016					152	178	90.4		
10/19/2016	99.2	73.2	21.7						
10/20/2016				90.3					
10/26/2016					156		94.5		
11/7/2016						170			
12/6/2016	105	74.9	18.2						
1/13/2017						192			
1/24/2017	95.7	69.6	18.5						
1/25/2017				77.3					
1/27/2017					157		84.2		
3/21/2017	106	75.7	18.6						
5/22/2017	107	71.5	17.8						
5/25/2017				69.9	173		100		
6/3/2017						172			
8/11/2017				79.5			99.1		
10/2/2017					168	195			
10/3/2017	102	76.3	20.2						
11/15/2017				72.8	182	184	103		
6/4/2018	124	73.4	19.1						
6/5/2018				71.4	161	195	103		
10/1/2018	108	80.9	20.5 (J)						
10/2/2018				66.6	174		100		
10/5/2018						181			
4/1/2019		80.5							
4/2/2019	132		22.5 (J)	60.9	150				
4/3/2019						184	96.7		
6/17/2019					164	173			
6/18/2019				75			97.1		
9/23/2019	118	71	19.5						
10/21/2019				80.8		173	96.9		
10/22/2019					171				
3/24/2020				81.2			104		
3/25/2020	127	89.8	23		170	139			
5/22/2020								140	112
6/15/2020					175				
6/16/2020	130	85.1						178	131
8/25/2020								186	130
9/15/2020	103	73.1	21.1	75.8					
9/16/2020									
9/18/2020									119
9/21/2020					152			155	
9/25/2020									
9/28/2020						167	107		
11/10/2020									
11/11/2020									133
11/12/2020								165	
12/15/2020									
12/16/2020								194	132

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/12/2023 2:06 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
1/19/2021									
1/20/2021								177 (M1)	131
3/10/2021	111								
3/11/2021		83.8	43.8	60.4 (M1)					
3/12/2021					174			165	138
3/15/2021						167	103		
8/11/2021	113								
8/12/2021		84	21.9						
8/13/2021				62.9					
8/16/2021					171	162	106		
8/19/2021								196	139
2/1/2022	106	85.1	27.2	57.5					
2/2/2022					159	148	95.9		
2/3/2022								175	157
8/2/2022	117	84.6	31.2	69.5					
8/4/2022					173	160	103	170	141
1/23/2023		85							
1/24/2023	117		29.4	63.3		156	96.2		
1/25/2023					161			174	132

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/12/2023 2:06 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	30	56	
9/18/2020			
9/21/2020			
9/25/2020			56.8
9/28/2020			
11/10/2020	33.6	63.3	
11/11/2020			54.9
11/12/2020			
12/15/2020	28.7	62.6	
12/16/2020			56.4

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/12/2023 2:06 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
1/19/2021	33	60.1	
1/20/2021			55
3/10/2021	18.3		
3/11/2021		59.6	
3/12/2021			56.5
3/15/2021			
8/11/2021		61	
8/12/2021			
8/13/2021	28.9		53
8/16/2021			
8/19/2021			
2/1/2022	24.8	55.9	51.3
2/2/2022			
2/3/2022			
8/2/2022	20.9	54.1	49.9
8/4/2022			
1/23/2023			
1/24/2023	13.2	56.6	53.9
1/25/2023			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-126	HGWC-125
5/19/2016	9.94	6.14	5.93						
7/11/2016	6.3	5.9							
7/12/2016			6.2						
8/30/2016	6	6.2	6.4	2.8					
8/31/2016					3.5	64	3		
10/19/2016	5.8	6.1	6.5						
10/20/2016				2.8					
10/26/2016					3.6		3.6		
11/7/2016						65			
12/6/2016	5.4	6	7.2						
1/13/2017						50			
1/24/2017	5.2	6.1	6.4						
1/25/2017				2.8					
1/27/2017					3.3		4		
3/21/2017	4.6	5.9	7.5						
5/22/2017	4.6	5.9	6.5						
5/25/2017				2.9	3.4		3.5		
6/3/2017						43			
8/11/2017				3			2.9		
10/2/2017					4.2	42			
10/3/2017	5.6	6.3	6.5						
11/15/2017				3.1	2.9	46	3.1		
6/4/2018	13.1	6.1	6.3						
6/5/2018				3	3.1	40.4	3.1		
10/1/2018	6.6	6.4	6.4						
10/2/2018				3.1	3.2		3.4		
10/5/2018						39			
4/1/2019			6.5						
4/2/2019	20.3	5.8		3.6	3.1				
4/3/2019						35.9	3.4		
6/17/2019						32.9			
6/18/2019				3.2			2.3 (J)		
9/23/2019	17.7	5.1	5.9						
10/21/2019				4.5		29.9	3.6		
10/22/2019					3.4				
3/24/2020				4.5			2.7		
3/25/2020	20.4	5.2	6.1		2.4	16.3			
5/22/2020								8.6	12.9
6/15/2020					2.3				
6/16/2020	41.1		5.8					8.6	10.4
8/25/2020								8.7	10.6
9/15/2020	13.4	5	6	3.6					
9/16/2020									
9/18/2020								8.4	
9/21/2020					2.4				12.1
9/25/2020									
9/28/2020						23.2	2.5		
11/10/2020									
11/11/2020								8.3	
11/12/2020									10.4
12/15/2020									
12/16/2020								8.9	5.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-126	HGWC-125
1/19/2021									
1/20/2021								8.5	10.2
3/10/2021	7.4								
3/11/2021		5.1	5.9	2.3					
3/12/2021					2.4			8.5	10.8
3/15/2021						21.8	2.9		
8/11/2021	9.6								
8/12/2021		5.2	4.8						
8/13/2021				2.6					
8/16/2021					2.4	18	2.6		
8/19/2021								7.8	4.5
2/1/2022	7.5	7	5.7	2.2					
2/2/2022					2.5	16.8	2.6		
2/3/2022								8.5	8.1
8/2/2022	14.1	7.8	5.9	2.7					
8/4/2022					2.7	15.4	2.6	8.7	11.6
1/23/2023			5.6						
1/24/2023	9	7.1		2.4		14.6	2.5		
1/25/2023					2.6			8.7	8.7

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	4.1	4.1	
9/18/2020			
9/21/2020			
9/25/2020			3.6
9/28/2020			
11/10/2020	7.8	4.4	
11/11/2020			3.3
11/12/2020			
12/15/2020	9.4	4.7	
12/16/2020			3.4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
1/19/2021	9.5	4.1	
1/20/2021			3.5
3/10/2021	12.3		
3/11/2021		4.5	
3/12/2021			3.3
3/15/2021			
8/11/2021		3.5	
8/12/2021			
8/13/2021	39.9		3.3
8/16/2021			
8/19/2021			
2/1/2022	44.8	4.1	3.5
2/2/2022			
2/3/2022			
8/2/2022	19.8	4.3	3.9
8/4/2022			
1/23/2023			
1/24/2023	24.9	4.3	3.5
1/25/2023			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-122 (bg)	HGWC-124	HGWC-120	HGWC-121A	HGWC-126	HGWC-125
5/19/2016	0.105 (J)	0.0303 (J)	0.0513 (J)						
7/11/2016	0.16 (J)	0.05 (J)							
7/12/2016			0.12 (J)						
8/30/2016	0.09 (J)	0.06 (J)	0.09 (J)	0.19 (J)					
8/31/2016					0.15 (J)	0.65	0.14 (J)		
10/19/2016	0.1 (J)	0.04 (J)	0.1 (J)						
10/20/2016				0.13 (J)					
10/26/2016					0.3	0.6			
11/7/2016							0.18 (J)		
12/6/2016	0.11 (J)	0.36	0.21 (J)						
1/13/2017							0.14 (J)		
1/24/2017	0.09 (J)	<0.1	0.06 (J)						
1/25/2017				0.22 (J)					
1/27/2017					0.3	1.2			
3/21/2017	0.13 (J)	<0.1	0.005 (J)						
5/22/2017	0.12 (J)	<0.1	0.05 (J)						
5/25/2017				0.12 (J)	0.05 (J)	1.4			
6/3/2017							0.15 (J)		
8/11/2017				0.12 (J)	0.1 (J)				
10/2/2017						1	1.2		
10/3/2017	0.13 (J)	<0.1	0.13 (J)						
11/15/2017				0.05 (J)	<0.1	1.3	0.6		
4/2/2018	<0.1	<0.1							
4/3/2018			<0.1						
6/4/2018	0.074 (J)	<0.1	<0.1						
6/5/2018				0.15 (J)	0.078 (J)	0.48	0.19 (J)		
10/1/2018	<0.1	<0.1	<0.1						
10/2/2018				0.22 (J)	0.078 (J)	0.34			
10/5/2018							0.23 (J)		
3/12/2019	0.29 (J)	0.038 (J)	0.072 (J)						
4/1/2019			0.029 (J)						
4/2/2019	0.1 (J)	0.071 (J)		0.2 (J)		0.47			
4/3/2019					0.089 (J)		0.14 (J)		
6/17/2019						1.2			
6/18/2019				0.14 (J)					
8/22/2019				0.12 (J)		0.3 (J)	0.2 (J)		
8/23/2019					0.11 (J)				
9/23/2019	0.078 (J)	<0.1	<0.1						
10/21/2019				0.15 (J)	0.073 (J)		0.18 (J)		
10/22/2019						0.53			
3/2/2020	0.076 (J)	<0.1	<0.1						
3/24/2020				0.085 (J)	<0.1				
3/25/2020	0.098 (J)	<0.1	<0.1			0.43	0.095 (J)		
5/22/2020								0.46	0.1 (J)
6/15/2020						0.37			
6/16/2020	0.071 (J)		<0.1					0.44	0.12
8/24/2020				0.075 (J)					
8/25/2020		<0.1	<0.1					0.52	0.16
8/26/2020						0.48	0.16		
8/27/2020					<0.1				
8/28/2020	0.08 (J)								
9/15/2020	0.082 (J)	<0.1	<0.1	0.096 (J)					

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-122 (bg)	HGWC-124	HGWC-120	HGWC-121A	HGWC-126	HGWC-125
9/16/2020									
9/18/2020								0.43	
9/21/2020						0.33			0.11
9/25/2020									
9/28/2020					<0.1		0.15		
11/10/2020									
11/11/2020								0.45	
11/12/2020									0.12
12/15/2020									
12/16/2020								0.49	0.2
1/19/2021									
1/20/2021								0.44	0.13
3/10/2021	0.079 (J)								
3/11/2021		0.1	<0.1	0.059 (J)					
3/12/2021						0.42		0.46	0.12
3/15/2021					<0.1		0.16		
8/11/2021	0.058 (J)								
8/12/2021		<0.1	<0.1						
8/13/2021				0.065 (J)					
8/16/2021					<0.1	0.39	0.15		
8/19/2021								0.43	0.17
2/1/2022	0.064 (J)	<0.1	<0.1	0.062 (J)					
2/2/2022					<0.1	0.36	0.15		
2/3/2022								0.51	0.18
8/2/2022	0.09 (J)	0.053 (J)	0.067 (J)	0.1					
8/4/2022					0.074 (J)	0.38	0.18	0.5	0.15
1/23/2023			0.061 (J)						
1/24/2023	0.089 (J)	0.053 (J)		0.13	0.068 (J)		0.18		
1/25/2023						0.42		0.57	0.17

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
4/2/2018			
4/3/2018			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
3/12/2019			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
8/22/2019			
8/23/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/2/2020			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/24/2020			
8/25/2020			
8/26/2020			
8/27/2020			
8/28/2020			
9/15/2020			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
9/16/2020	0.22	0.22	
9/18/2020			
9/21/2020			
9/25/2020			0.21
9/28/2020			
11/10/2020	0.19	0.59	
11/11/2020			0.19
11/12/2020			
12/15/2020	0.21	0.67	
12/16/2020			0.18
1/19/2021	0.16	0.74	
1/20/2021			0.22
3/10/2021		0.65	
3/11/2021	0.2		
3/12/2021			0.2
3/15/2021			
8/11/2021	0.15		
8/12/2021			
8/13/2021		0.87	0.2
8/16/2021			
8/19/2021			
2/1/2022	0.19	0.96	0.15
2/2/2022			
2/3/2022			
8/2/2022	0.22	0.8	0.21
8/4/2022			
1/23/2023			
1/24/2023	0.23	1.3	0.19
1/25/2023			

Prediction Limit

Constituent: pH (s.u.) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-122 (bg)	HGWC-124	HGWC-120	HGWC-121A	HGWC-126	HGWC-125
5/19/2016	7.27	5.81	7.45						
7/11/2016	7.06	5.68							
7/12/2016			7.32						
8/30/2016	7.28	5.63	7.43	6.75					
8/31/2016					6.99	6.73	6.62		
10/19/2016	7.02	5.46	7.03						
10/20/2016				6.73					
10/27/2016					7.06	6.77			
11/7/2016							6.71		
12/6/2016	7.09	5.38	7.08						
1/13/2017							6.57		
1/24/2017	7.2	5.37	7.39						
1/25/2017				6.88					
1/27/2017					7.13	6.74			
3/21/2017	7.01	4.9	6.83						
5/22/2017	7.11	5.2	7.02						
5/25/2017				6.55	7.1	6.99			
6/3/2017							6.71		
8/11/2017				6.56	7.02				
10/2/2017						7.66	7.65		
10/3/2017	7.21	5.3	7.47						
11/15/2017				6.47	7.04	6.71	6.69		
4/2/2018	7.1	5.4							
4/3/2018			7.38						
6/4/2018	7.06	5.27	7.38						
6/5/2018				6.66	7.17	6.83	6.79		
10/1/2018	7.09	5.31	7.13						
10/2/2018				6.44	7.08	6.83			
10/5/2018							6.71		
3/12/2019	7.03	5.42	7.29						
4/1/2019			7.16						
4/2/2019	6.86	5.41		6.57		6.87			
4/3/2019					7.14		6.73		
8/22/2019				6.51		6.79	6.77		
8/23/2019					7.02				
9/23/2019	7.02	5.33	7.3						
10/21/2019				6.69	7.05		6.74		
10/22/2019						6.74			
3/2/2020	7.1	5.43	7.12						
3/24/2020				7.08	7.18				
3/25/2020	6.95	5.36	7.4			6.8	6.91		
5/22/2020								7.22	6.43
6/15/2020						6.8			
6/16/2020	6.97		7.31					6.92	6.29
8/24/2020				6.54					
8/25/2020		5.17	7.14					6.78	6.36
8/26/2020						6.96	6.73		
8/27/2020					7.15				
8/28/2020	7.02								
9/15/2020	7.15	5.22	7.29	6.68					
9/16/2020									
9/18/2020								6.97	

Prediction Limit

Constituent: pH (s.u.) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-122 (bg)	HGWC-124	HGWC-120	HGWC-121A	HGWC-126	HGWC-125
9/21/2020						6.98			6.22
9/25/2020									
9/28/2020					7.27		6.93		
11/10/2020									
11/11/2020								6.86	
11/12/2020									6.13
12/15/2020									
12/16/2020								6.93	6.61
1/19/2021									
1/20/2021								6.99	6.23
3/10/2021	6.95								
3/11/2021		5.8	7.33	6.65					
3/12/2021						6.95		7.05	6.18
3/15/2021					7.22		6.87		
8/11/2021	6.98								
8/12/2021		5.05	7.31						
8/13/2021				6.56					
8/16/2021					7.09	6.92	6.74		
8/19/2021								7.32	7.24
2/1/2022	7.19	5.24	7.45	6.57					
2/2/2022					7.28	7	6.92		
2/3/2022								7.01	6.56
8/2/2022	7.03	4.57	7.02	6.67					
8/4/2022					7.15	6.93	6.8	6.99	6.09
1/23/2023			7.32						
1/24/2023	6.76	5.22		6.43	7.05		6.75		
1/25/2023						6.87		6.89	6.32

Prediction Limit

Constituent: pH (s.u.) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/27/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
4/2/2018			
4/3/2018			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
3/12/2019			
4/1/2019			
4/2/2019			
4/3/2019			
8/22/2019			
8/23/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/2/2020			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/24/2020			
8/25/2020			
8/26/2020			
8/27/2020			
8/28/2020			
9/15/2020			
9/16/2020	7.52	7.83	
9/18/2020			

Prediction Limit

Constituent: pH (s.u.) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
9/21/2020			
9/25/2020			7.57
9/28/2020			
11/10/2020	7.27	7.84	
11/11/2020			7.4
11/12/2020			
12/15/2020	7.39	7.87	
12/16/2020			7.39
1/19/2021	7.39	7.86	
1/20/2021			7.47
3/10/2021		7.92	
3/11/2021	7.46		
3/12/2021			7.52
3/15/2021			
8/11/2021	7.4		
8/12/2021			
8/13/2021		7.77	7.42
8/16/2021			
8/19/2021			
2/1/2022	7.52	8.25	7.45
2/2/2022			
2/3/2022			
8/2/2022	7.15	7.9	7.39
8/4/2022			
1/23/2023			
1/24/2023	7.56	8.22	7.15
1/25/2023			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
5/19/2016	66.9	42.3	48.6						
7/11/2016	41		45						
7/12/2016		44							
8/30/2016	36	40	42	49					
8/31/2016					290	280	72		
10/19/2016	46	43	44						
10/20/2016				49					
10/26/2016					280		71		
11/7/2016						300			
12/6/2016	59	43	44						
1/13/2017						270			
1/24/2017	46	48	46						
1/25/2017				48					
1/27/2017					290		74		
3/21/2017	63	45	46						
5/22/2017	77	46	48						
5/25/2017				48	280		73		
6/3/2017						270			
8/11/2017				47			71		
10/2/2017					300	330			
10/3/2017	42	48	47						
11/15/2017				49	300	280	70		
6/4/2018	71.8	46.6	47.8						
6/5/2018				48.9	273	241	74		
10/1/2018	49.1	48.6	48.1						
10/2/2018				48.6	328		80.7		
10/5/2018						271			
4/1/2019		50.4							
4/2/2019	84.3		48.7	39.6	256				
4/3/2019						230	75.2		
6/17/2019					243	219			
6/18/2019				44.5			75.3		
9/23/2019	70.2	43.9	47.2						
10/21/2019				45.6		238	78.5		
10/22/2019					266				
3/24/2020				25.9			74.6		
3/25/2020	85.9	50.5	46.3		226	116			
5/22/2020								345	56.1
6/15/2020					212				
6/16/2020	88.2	49.5						320	57.6
8/25/2020								353	62.8
9/15/2020	47.3	44.7	51.5	41.4					
9/16/2020									
9/18/2020									62.7
9/21/2020					225			352	
9/25/2020									
9/28/2020						182	86.2		
11/10/2020									
11/11/2020									62.3
11/12/2020								300	
12/15/2020									
12/16/2020								306	68.1

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-3 (bg)	HGWA-2 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
1/19/2021									
1/20/2021								335	66.6
3/10/2021	49.6								
3/11/2021		50.4	52.9	40.7					
3/12/2021					210			293	69.7
3/15/2021						177	74		
8/11/2021	48.9								
8/12/2021		38.6	47.4						
8/13/2021				42.1					
8/16/2021					211	158	74		
8/19/2021								264	64.4
2/1/2022	43.7	46	67.1	41.1					
2/2/2022					201	147	70.7		
2/3/2022								304	66.8
8/2/2022	58.1	43.5	86.9	41.5					
8/4/2022					230	162	73.1	331	68.3
1/23/2023		39.5							
1/24/2023	48.3		79.7	36.5		151	69.6		
1/25/2023					230			306	63.7

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	43	43	
9/18/2020			
9/21/2020			
9/25/2020			6.8
9/28/2020			
11/10/2020	6.3	39	
11/11/2020			11.2
11/12/2020			
12/15/2020	6.7	38.8	
12/16/2020			11.3

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-44D (bg)	HGWA-43D (bg)	HGWA-45D (bg)
1/19/2021	7.4	37.3	
1/20/2021			14.2
3/10/2021	<1		
3/11/2021		38.6	
3/12/2021			8.7
3/15/2021			
8/11/2021		30.5	
8/12/2021			
8/13/2021	56.1		8.1
8/16/2021			
8/19/2021			
2/1/2022	56.3	37.5	2.5
2/2/2022			
2/3/2022			
8/2/2022	13.2	37	2.1
8/4/2022			
1/23/2023			
1/24/2023	10.1	34.7	5.2
1/25/2023			

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-126	HGWC-125
5/19/2016	421	143	267						
7/11/2016	363	125							
7/12/2016			249						
8/30/2016	330	168	254	280					
8/31/2016					700	876	379		
10/19/2016	380	176	357						
10/20/2016				265					
10/26/2016					795		409		
11/7/2016						1000			
12/6/2016	377	145	285						
1/13/2017						827			
1/24/2017	342	129	300						
1/25/2017				371					
1/27/2017					706		370		
3/21/2017	340	103	288						
5/22/2017	338	92	263						
5/25/2017				237	669		351		
6/3/2017						846			
8/11/2017				253			322		
10/2/2017					672	884			
10/3/2017	343	127	300						
11/15/2017				261	721	838	350		
6/4/2018	415	140	266						
6/5/2018				276	723	823	360		
10/1/2018	354	135	291						
10/2/2018				256	703		363		
10/5/2018						813			
4/1/2019			284						
4/2/2019	452	133		814 (o)	540				
4/3/2019						785	369		
6/17/2019						751			
6/18/2019				233					
9/23/2019	442	129	268						
10/21/2019				296		771	357		
10/22/2019					693				
3/24/2020				278			355		
3/25/2020	496	138	284		665	521			
5/22/2020								496	809
6/15/2020					685				
6/16/2020	632		448					508	665
8/25/2020								505	772
9/15/2020	265	124	258	267					
9/16/2020									
9/18/2020								452	
9/21/2020					272				956
9/25/2020									
9/28/2020						<10	176		
11/10/2020									
11/11/2020								468	
11/12/2020									694
12/15/2020									
12/16/2020								536	816

ND substitution: RL or RL/2 if <15% NDs.

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-1 (bg)	HGWA-2 (bg)	HGWA-3 (bg)	HGWA-122 (bg)	HGWC-120	HGWC-121A	HGWC-124	HGWC-126	HGWC-125
1/19/2021									
1/20/2021								472	726
3/10/2021	348								
3/11/2021		169	267	206					
3/12/2021					584			474	664
3/15/2021						614	340		
8/11/2021	366								
8/12/2021		118	265						
8/13/2021				201					
8/16/2021					632	626	352		
8/19/2021								488	732
2/1/2022	270	156	350	203					
2/2/2022					612	638	347		
2/3/2022								466	726
8/2/2022	400	196	287	217					
8/4/2022					632	640	334	510	706
1/23/2023			293						
1/24/2023	369	164		246		602	350		
1/25/2023					656			517	798

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
5/19/2016			
7/11/2016			
7/12/2016			
8/30/2016			
8/31/2016			
10/19/2016			
10/20/2016			
10/26/2016			
11/7/2016			
12/6/2016			
1/13/2017			
1/24/2017			
1/25/2017			
1/27/2017			
3/21/2017			
5/22/2017			
5/25/2017			
6/3/2017			
8/11/2017			
10/2/2017			
10/3/2017			
11/15/2017			
6/4/2018			
6/5/2018			
10/1/2018			
10/2/2018			
10/5/2018			
4/1/2019			
4/2/2019			
4/3/2019			
6/17/2019			
6/18/2019			
9/23/2019			
10/21/2019			
10/22/2019			
3/24/2020			
3/25/2020			
5/22/2020			
6/15/2020			
6/16/2020			
8/25/2020			
9/15/2020			
9/16/2020	272	270	
9/18/2020			
9/21/2020			
9/25/2020			263
9/28/2020			
11/10/2020	307	287	
11/11/2020			276
11/12/2020			
12/15/2020	289	295	
12/16/2020			294

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/12/2023 2:07 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWA-43D (bg)	HGWA-44D (bg)	HGWA-45D (bg)
1/19/2021	270	278	
1/20/2021			289
3/10/2021		289	
3/11/2021	279		
3/12/2021			260
3/15/2021			
8/11/2021	277		
8/12/2021			
8/13/2021		436	272
8/16/2021			
8/19/2021			
2/1/2022	156	444	268
2/2/2022			
2/3/2022			
8/2/2022	278	311	261
8/4/2022			
1/23/2023			
1/24/2023	271	363	289
1/25/2023			

FIGURE E.

Appendix III Trend Tests - Significant Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 3/29/2023, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	**HGWA-122 (bg)**	**-0.02355**	**-98**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWA-2 (bg)**	**0.002417**	**122**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-120**	**-0.04548**	**-87**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-121A**	**-0.2479**	**-111**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWA-3 (bg)**	**2.343**	**113**	**87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**HGWC-121A**	**-5.528**	**-81**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-122 (bg)**	**-1.758**	**-91**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.847**	**118**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-43D (bg)**	**-2.015**	**-26**	**-25**	**Yes**	**9**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-120**	**-15.92**	**-103**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-121A**	**-24.83**	**-109**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**HGWC-120**	**-16.21**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**

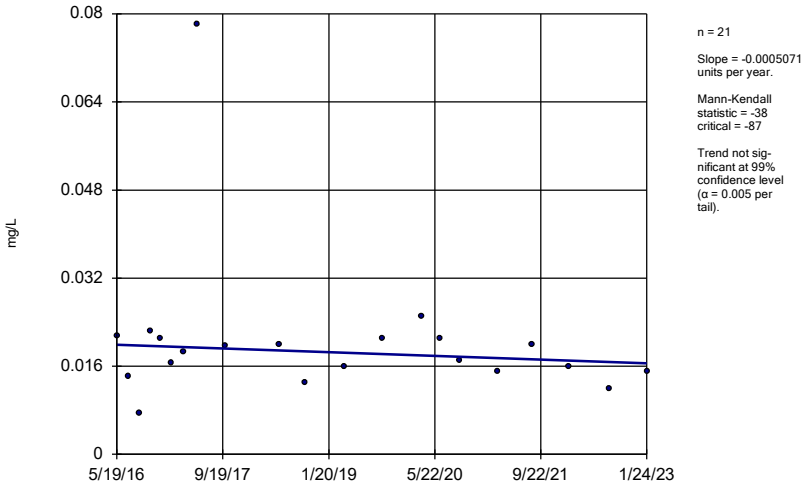
Appendix III Trend Tests - All Results

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 3/29/2023, 4:17 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	HGWA-1 (bg)	-0.0005071	-38	-87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWA-122 (bg)**	**-0.02355**	**-98**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWA-2 (bg)**	**0.002417**	**122**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWA-3 (bg)	0.0004174	28	87	No	21	19.05	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-43D (bg)	-0.009889	-24	-25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-44D (bg)	0.08867	20	25	No	9	11.11	n/a	n/a	0.01	NP
Boron (mg/L)	HGWA-45D (bg)	-0.01181	-17	-25	No	9	0	n/a	n/a	0.01	NP
Boron (mg/L)	**HGWC-120**	**-0.04548**	**-87**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**HGWC-121A**	**-0.2479**	**-111**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	HGWC-125	0	1	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-1 (bg)	2.482	68	87	No	21	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-122 (bg)	-2.43	-49	-68	No	18	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-2 (bg)	0.8789	66	81	No	20	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWA-3 (bg)**	**2.343**	**113**	**87**	**Yes**	**21**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWA-43D (bg)	-3.051	-16	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-44D (bg)	-7.217	-22	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWA-45D (bg)	-2.921	-20	-25	No	9	0	n/a	n/a	0.01	NP
Calcium (mg/L)	HGWC-120	0.8066	28	74	No	19	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**HGWC-121A**	**-5.528**	**-81**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	HGWC-125	4.444	9	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-1 (bg)	1.051	29	87	No	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWA-122 (bg)**	**-1.758**	**-91**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWA-2 (bg)**	**1.847**	**118**	**81**	**Yes**	**20**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-3 (bg)	0.5404	34	87	No	21	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWA-43D (bg)**	**-2.015**	**-26**	**-25**	**Yes**	**9**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWA-44D (bg)	2.752	8	25	No	9	11.11	n/a	n/a	0.01	NP
Sulfate (mg/L)	HGWA-45D (bg)	-3.036	-16	-25	No	9	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**HGWC-120**	**-15.92**	**-103**	**-74**	**Yes**	**19**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**HGWC-121A**	**-24.83**	**-109**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	HGWC-125	-17.22	-23	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-1 (bg)	3.042	16	87	No	21	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-122 (bg)	-10.71	-52	-63	No	17	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-2 (bg)	2.559	17	81	No	20	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-3 (bg)	1.746	27	87	No	21	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-43D (bg)	-6.294	-12	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-44D (bg)	39.45	22	25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	HGWA-45D (bg)	-1.727	-3	-25	No	9	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**HGWC-120**	**-16.21**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	HGWC-125	-10.77	-7	-38	No	12	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

HGWA-1 (bg)



n = 21

Slope = -0.0005071 units per year.

Mann-Kendall statistic = -38
critical = -87

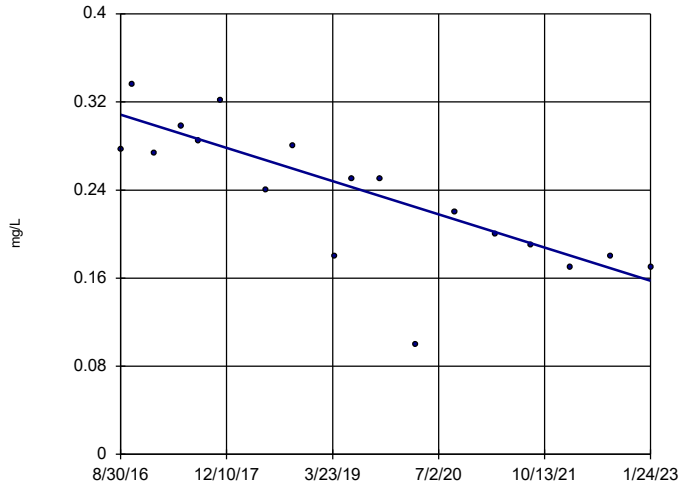
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-122 (bg)



n = 18

Slope = -0.02355 units per year.

Mann-Kendall statistic = -98
critical = -68

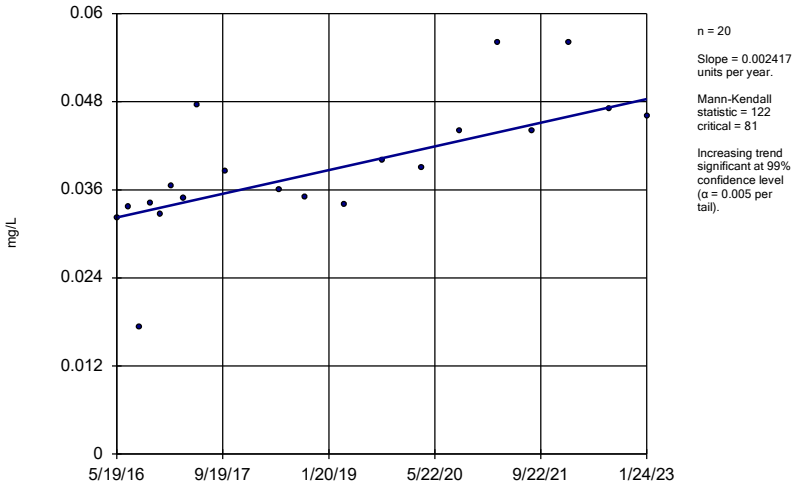
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 20

Slope = 0.002417 units per year.

Mann-Kendall statistic = 122
critical = 81

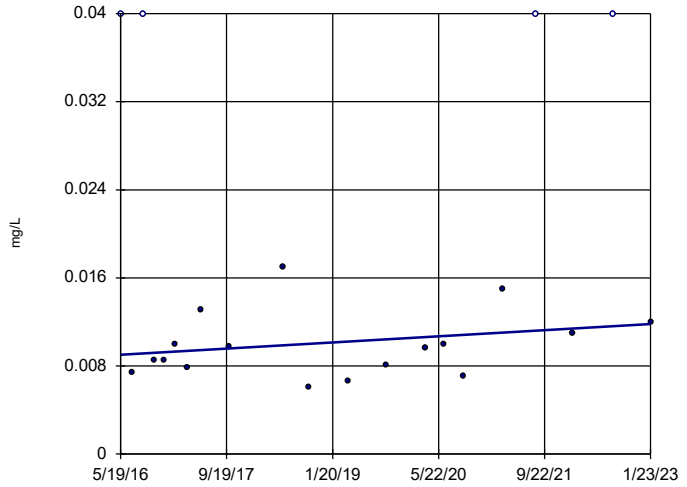
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-3 (bg)



n = 21

Slope = 0.0004174 units per year.

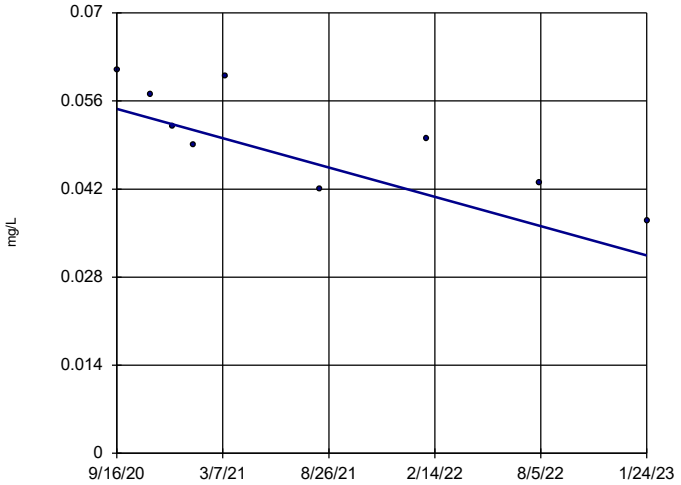
Mann-Kendall statistic = 28
critical = 87

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-43D (bg)



n = 9

Slope = -0.009889 units per year.

Mann-Kendall statistic = -24
critical = -25

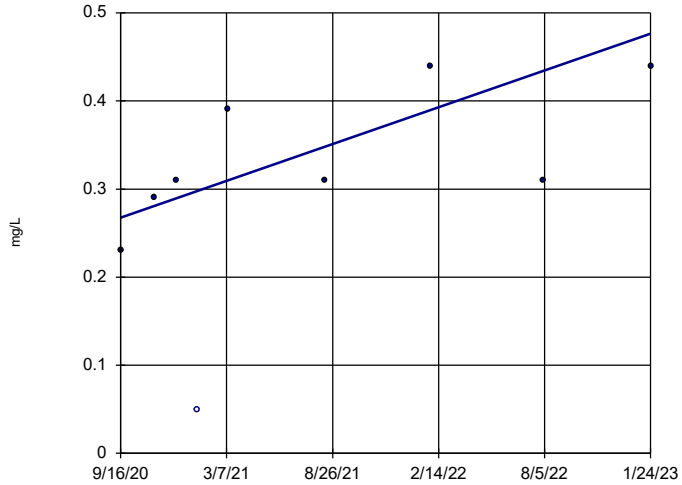
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-44D (bg)



n = 9

Slope = 0.08867 units per year.

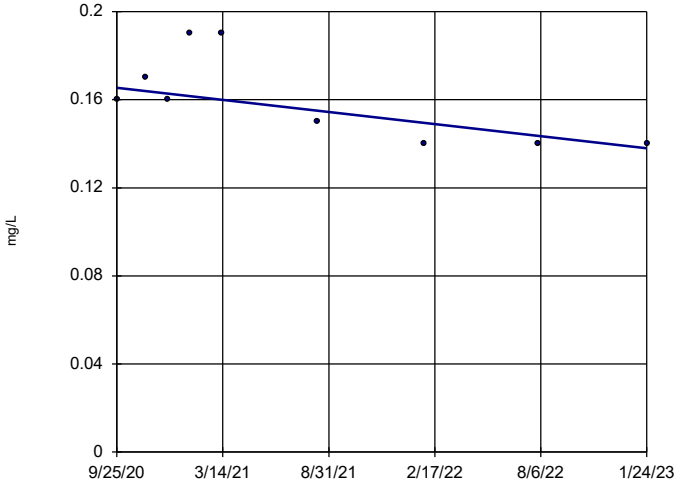
Mann-Kendall statistic = 20
critical = 25

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-45D (bg)



n = 9

Slope = -0.01181 units per year.

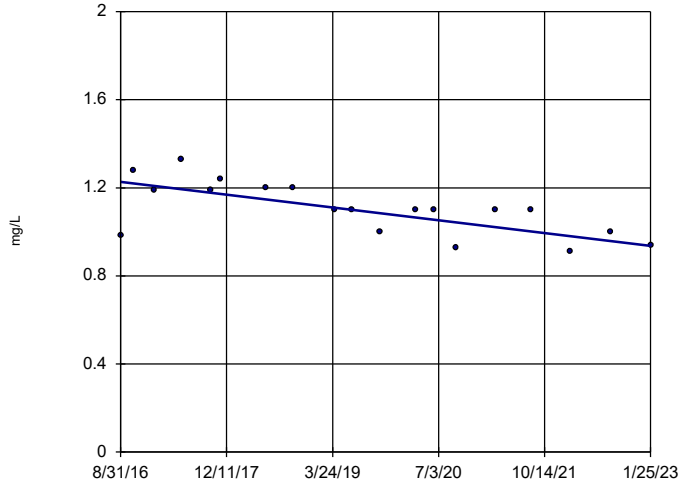
Mann-Kendall statistic = -17
critical = -25

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWC-120



n = 19

Slope = -0.04548 units per year.

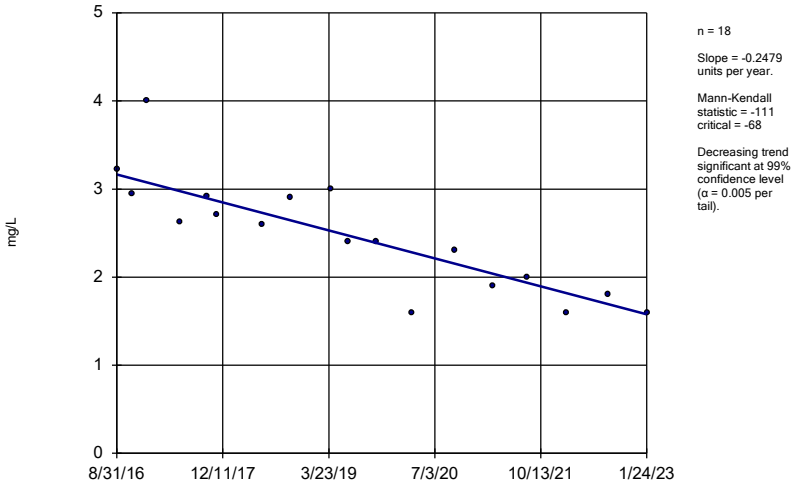
Mann-Kendall statistic = -87
critical = -74

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWC-121A



n = 18

Slope = -0.2479 units per year.

Mann-Kendall statistic = -111 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

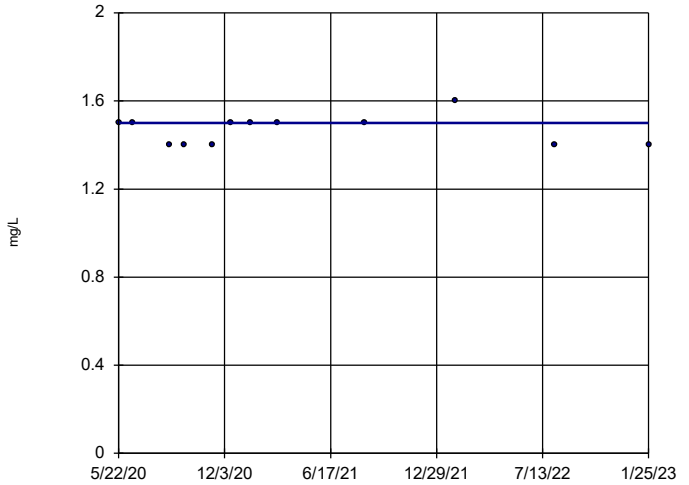
Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-125



n = 12

Slope = 0 units per year.

Mann-Kendall statistic = 1 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

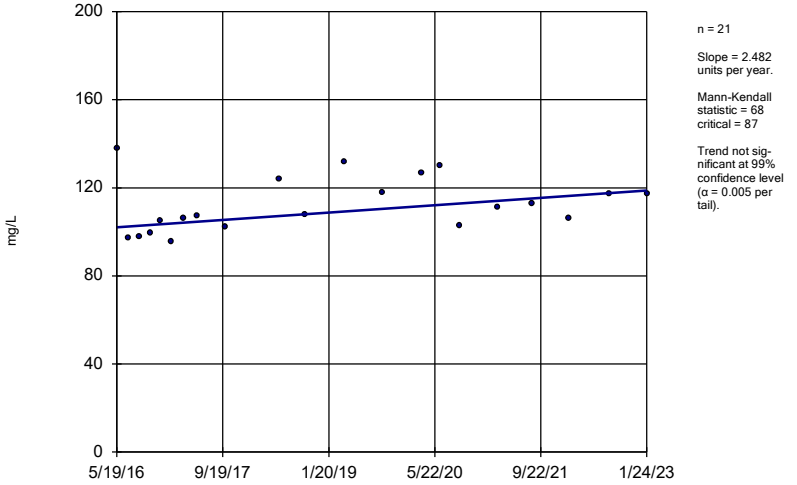
Constituent: Boron Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 21

Slope = 2.482 units per year.

Mann-Kendall statistic = 68 critical = 87

Trend not significant at 99% confidence level (α = 0.005 per tail).

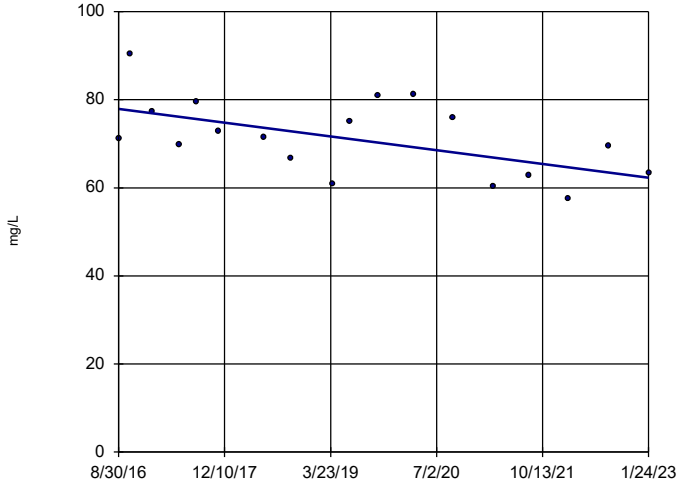
Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-122 (bg)



n = 18

Slope = -2.43 units per year.

Mann-Kendall statistic = -49 critical = -68

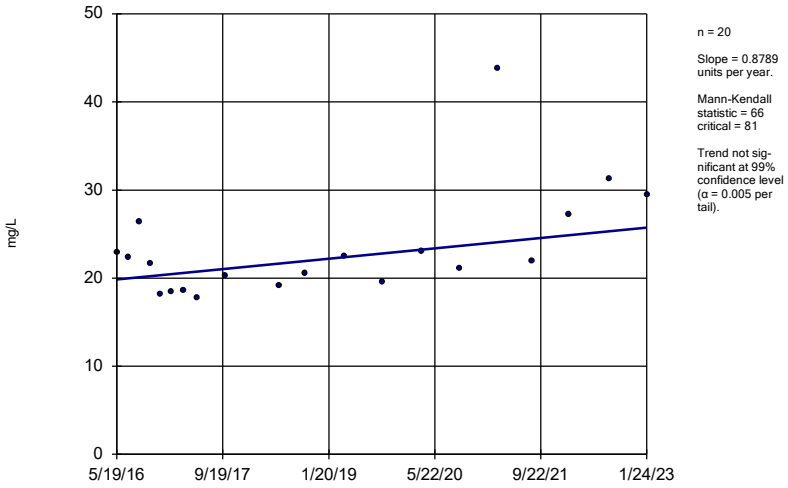
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-2 (bg)



n = 20

Slope = 0.8789 units per year.

Mann-Kendall statistic = 66
critical = 81

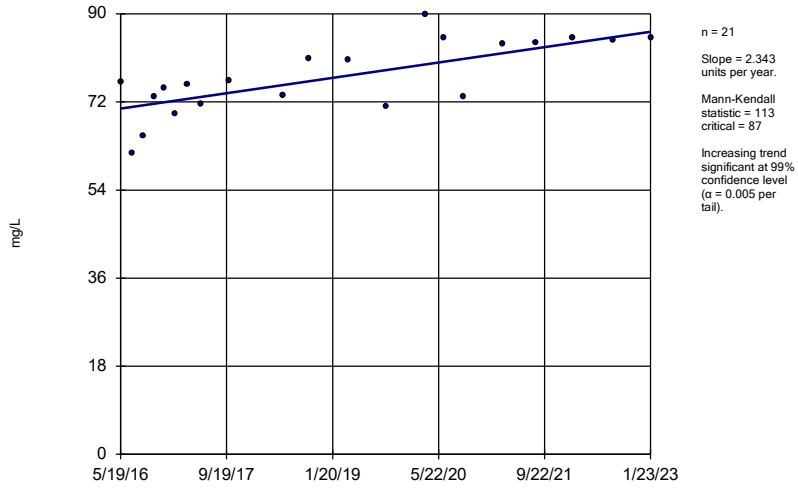
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-3 (bg)



n = 21

Slope = 2.343 units per year.

Mann-Kendall statistic = 113
critical = 87

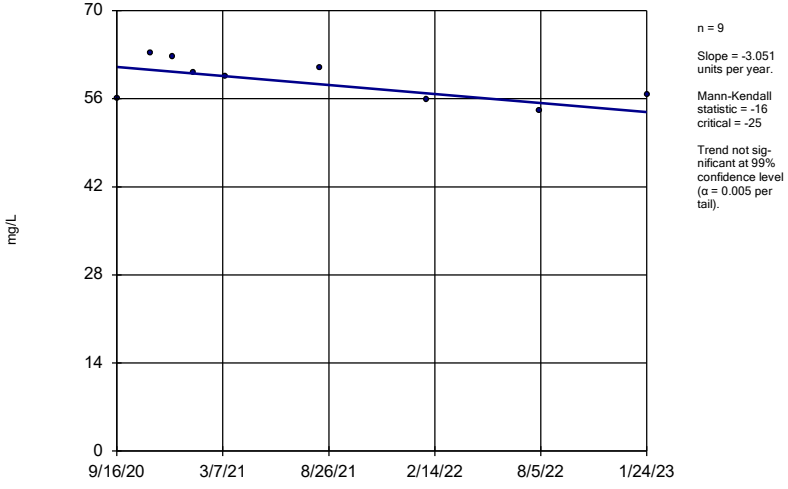
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 9

Slope = -3.051 units per year.

Mann-Kendall statistic = -16
critical = -25

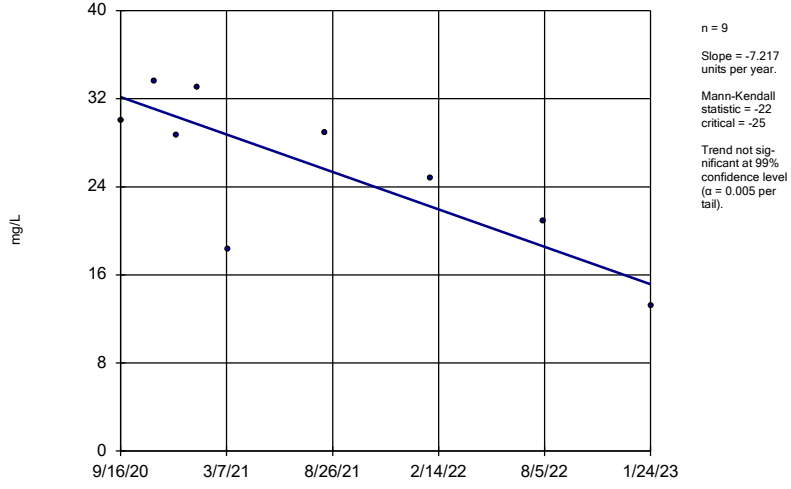
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-44D (bg)



n = 9

Slope = -7.217 units per year.

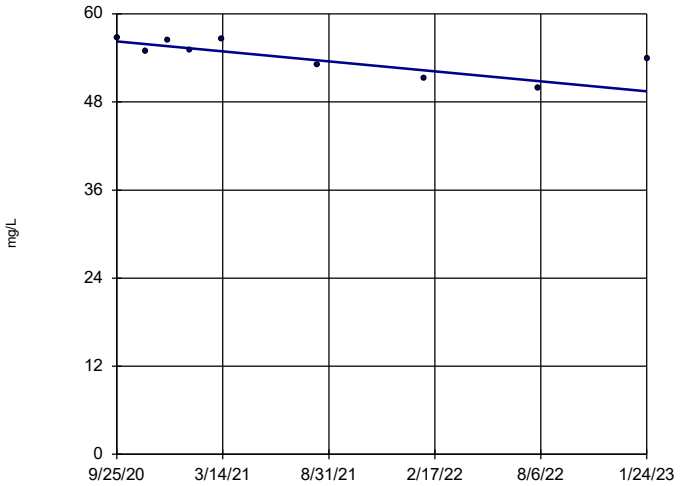
Mann-Kendall statistic = -22
critical = -25

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-45D (bg)



n = 9

Slope = -2.921 units per year.

Mann-Kendall statistic = -20
critical = -25

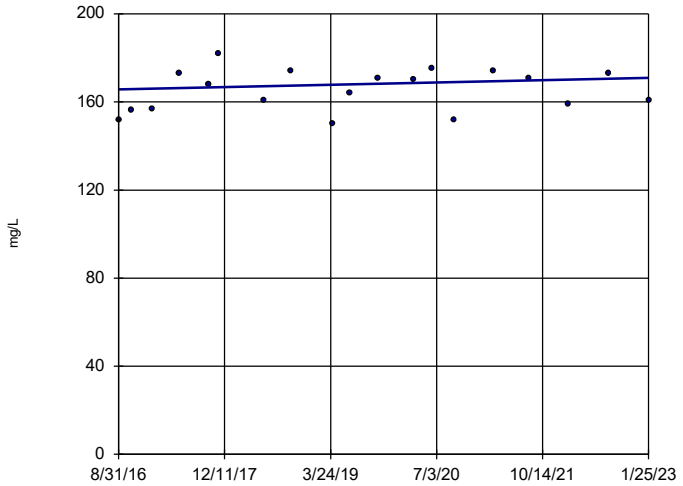
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-120



n = 19

Slope = 0.8066 units per year.

Mann-Kendall statistic = 28
critical = 74

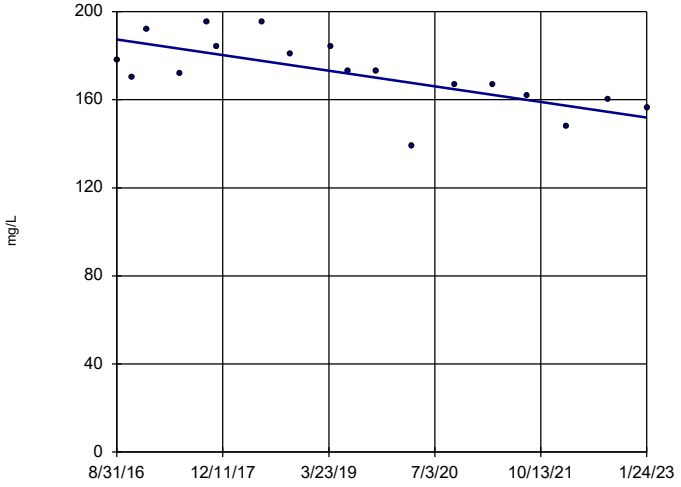
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-121A



n = 18

Slope = -5.528 units per year.

Mann-Kendall statistic = -81
critical = -68

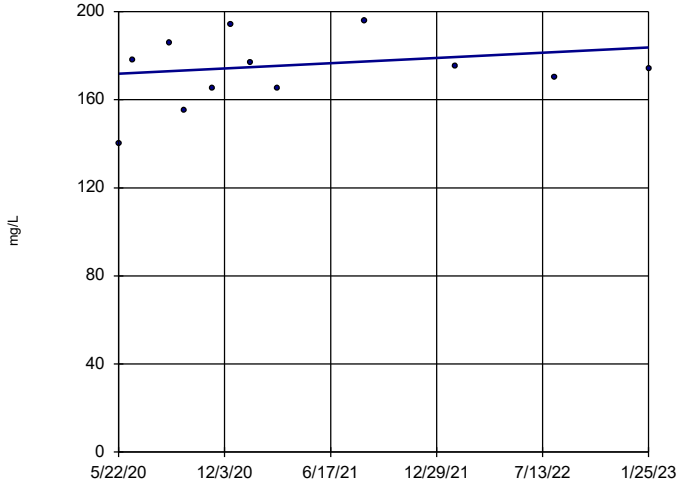
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-125



n = 12

Slope = 4.444 units per year.

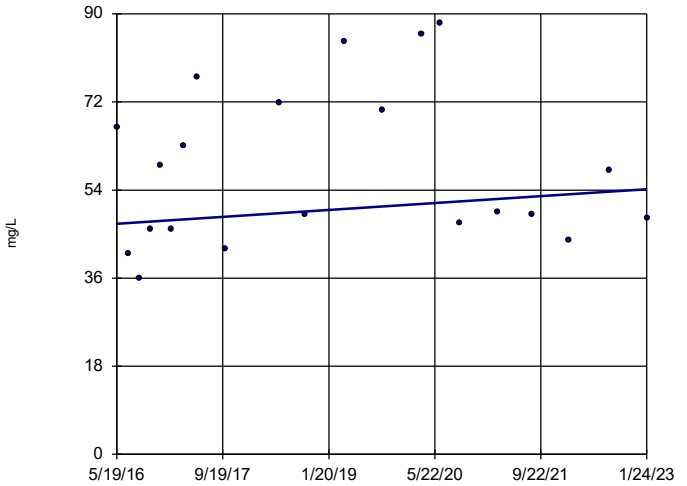
Mann-Kendall statistic = 9
critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-1 (bg)



n = 21

Slope = 1.051 units per year.

Mann-Kendall statistic = 29 critical = 87

Trend not significant at 99% confidence level (α = 0.005 per tail).

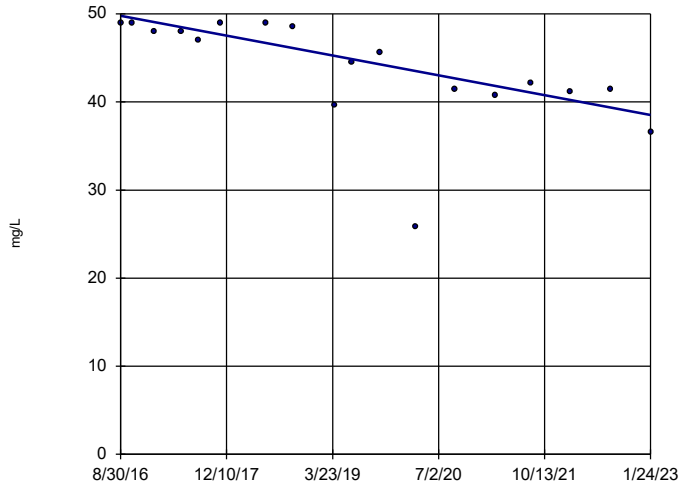
Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-122 (bg)



n = 18

Slope = -1.758 units per year.

Mann-Kendall statistic = -91 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

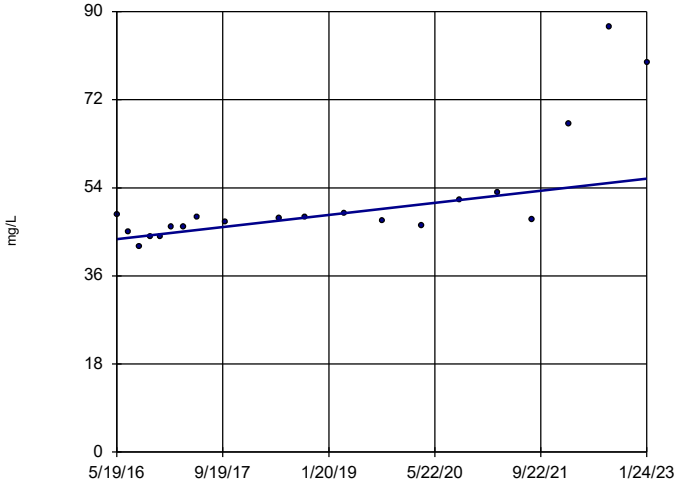
Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-2 (bg)



n = 20

Slope = 1.847 units per year.

Mann-Kendall statistic = 118 critical = 81

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

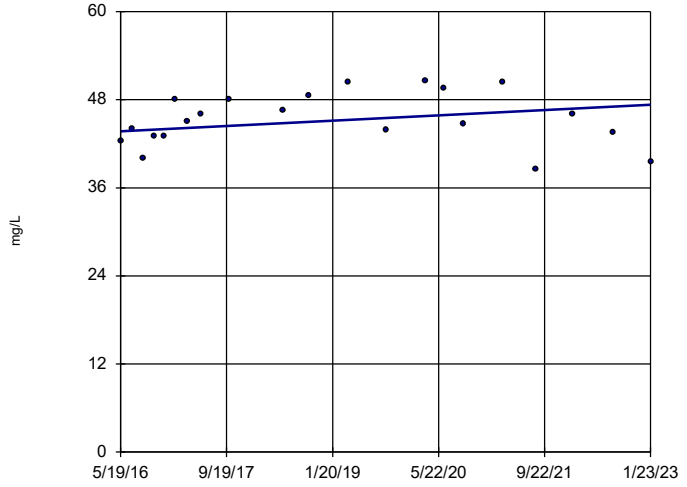
Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-3 (bg)



n = 21

Slope = 0.5404 units per year.

Mann-Kendall statistic = 34 critical = 87

Trend not significant at 99% confidence level (α = 0.005 per tail).

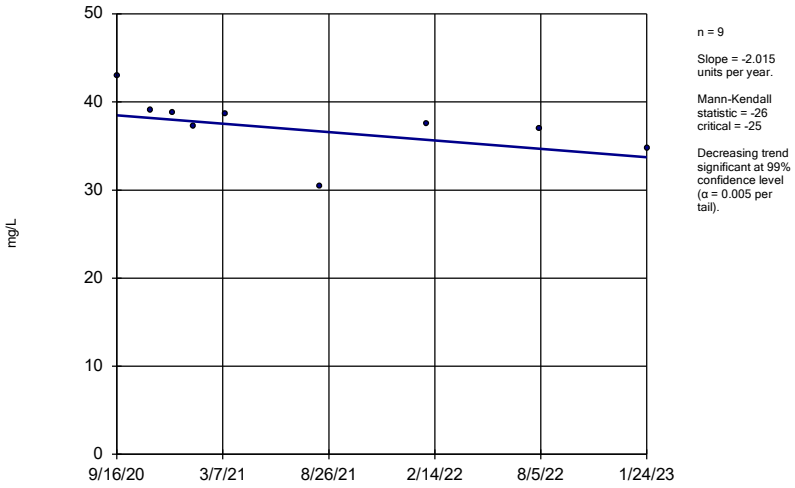
Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 9

Slope = -2.015 units per year.

Mann-Kendall statistic = -26 critical = -25

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL

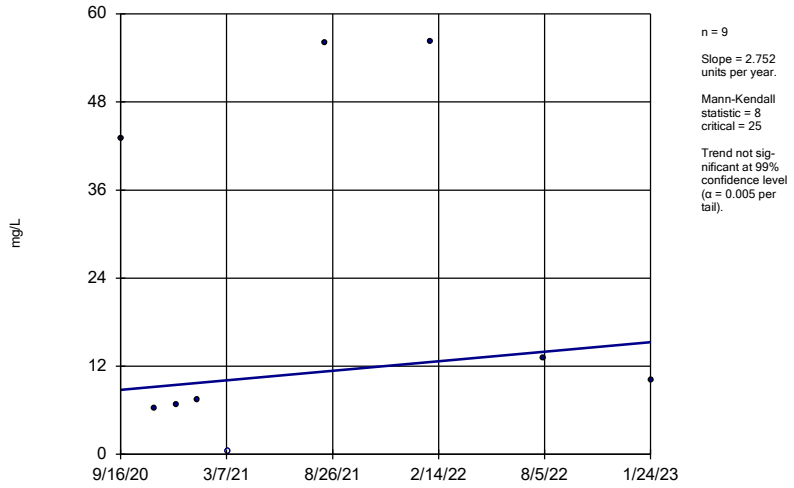
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

HGWA-44D (bg)



n = 9

Slope = 2.752 units per year.

Mann-Kendall statistic = 8 critical = 25

Trend not significant at 99% confidence level (α = 0.005 per tail).

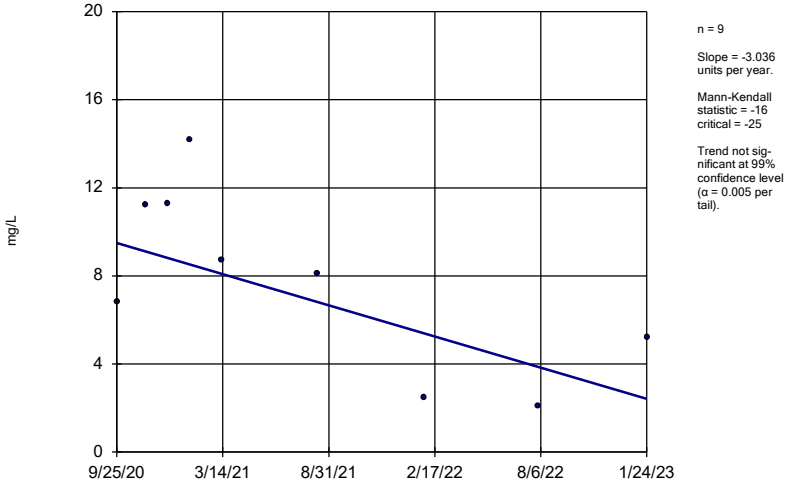
Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-45D (bg)



n = 9

Slope = -3.036 units per year.

Mann-Kendall statistic = -16 critical = -25

Trend not significant at 99% confidence level (α = 0.005 per tail).

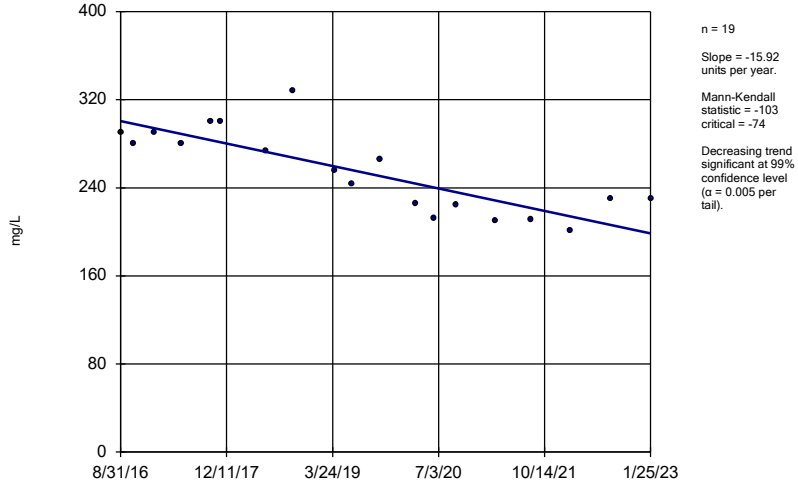
Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-120



n = 19

Slope = -15.92 units per year.

Mann-Kendall statistic = -103 critical = -74

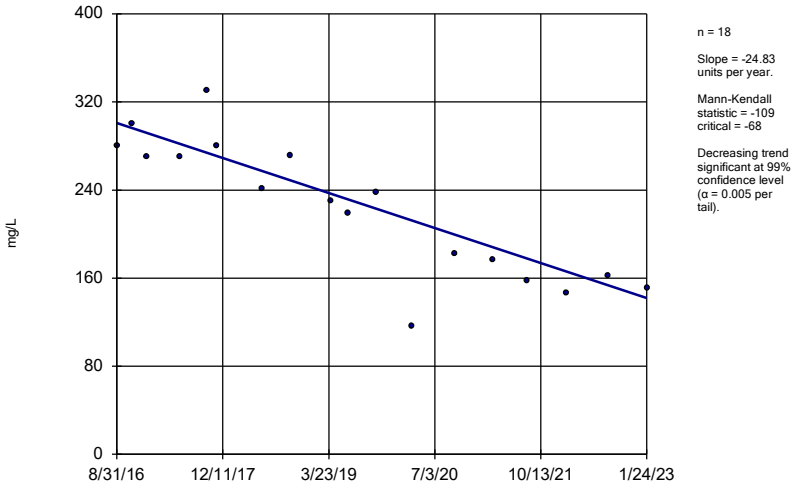
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWC-121A



n = 18

Slope = -24.83 units per year.

Mann-Kendall statistic = -109
critical = -68

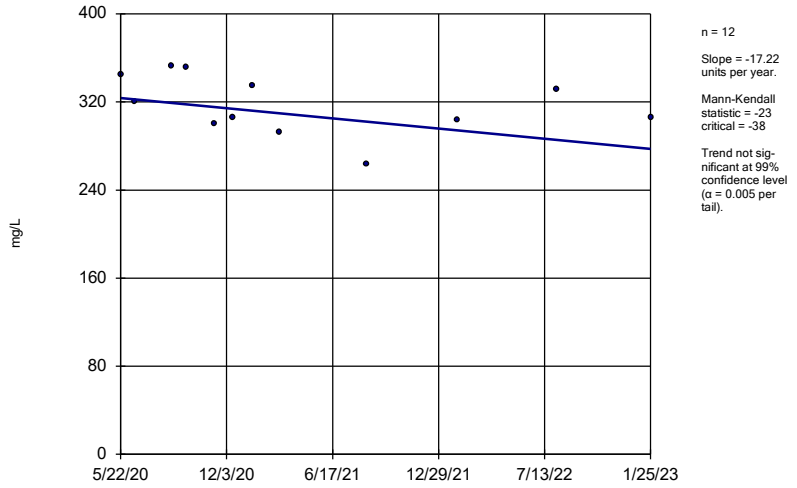
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-125



n = 12

Slope = -17.22 units per year.

Mann-Kendall statistic = -23
critical = -38

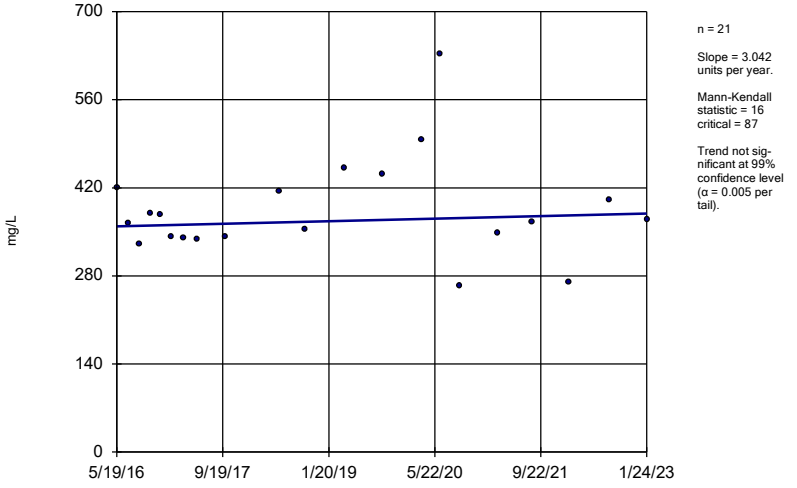
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-1 (bg)



n = 21

Slope = 3.042 units per year.

Mann-Kendall statistic = 16
critical = 87

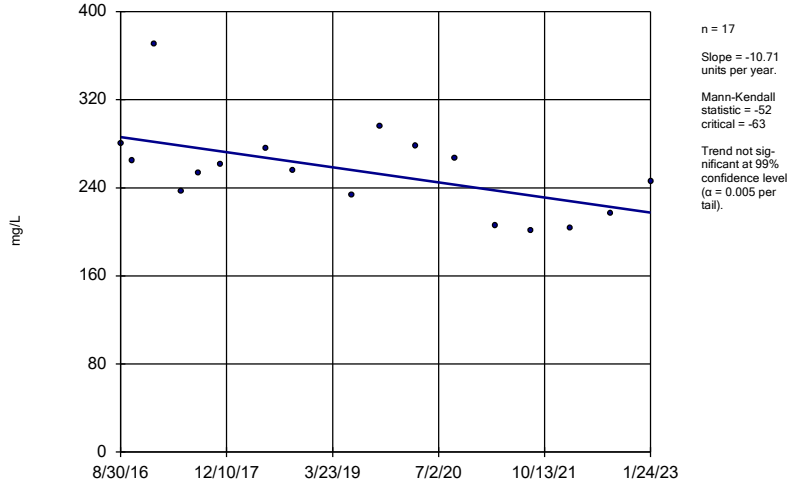
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-122 (bg)



n = 17

Slope = -10.71 units per year.

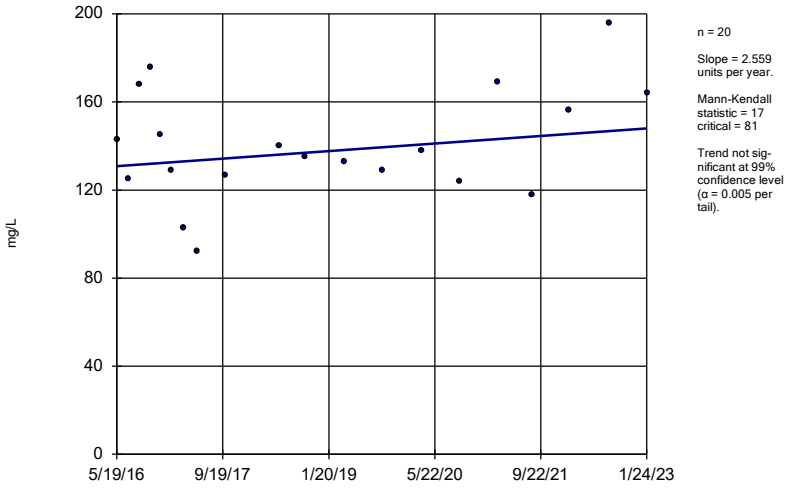
Mann-Kendall statistic = -52
critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-2 (bg)



n = 20

Slope = 2.559 units per year.

Mann-Kendall statistic = 17 critical = 81

Trend not significant at 99% confidence level (α = 0.005 per tail).

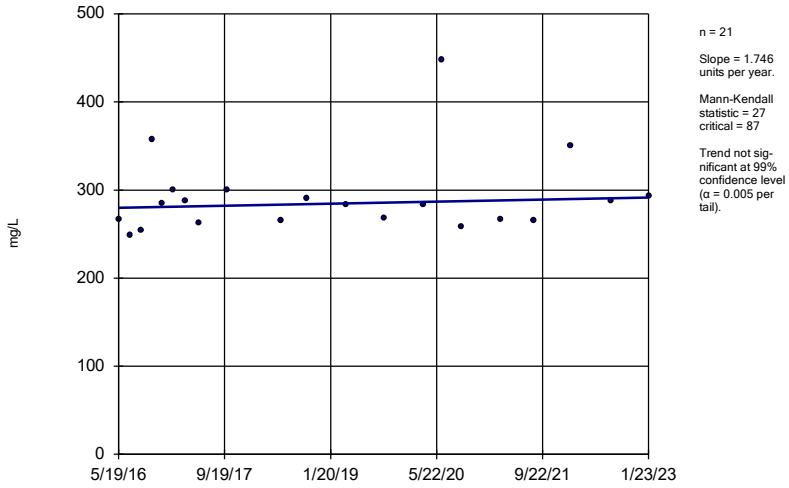
Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-3 (bg)



n = 21

Slope = 1.746 units per year.

Mann-Kendall statistic = 27 critical = 87

Trend not significant at 99% confidence level (α = 0.005 per tail).

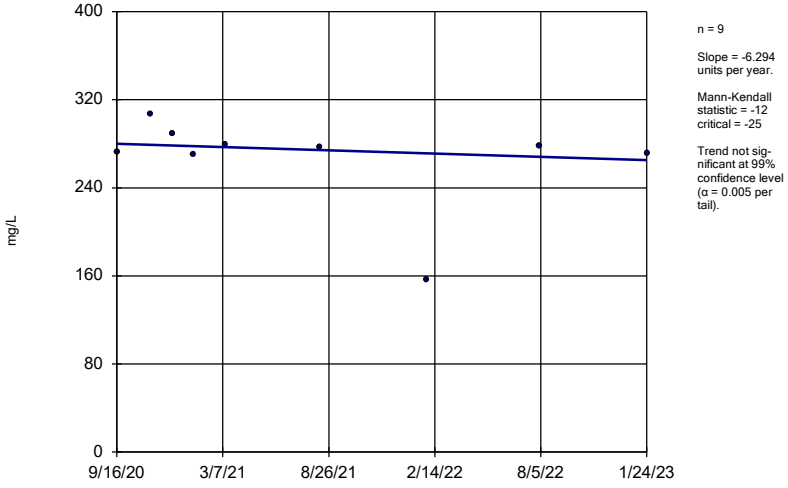
Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-43D (bg)



n = 9

Slope = -6.294 units per year.

Mann-Kendall statistic = -12 critical = -25

Trend not significant at 99% confidence level (α = 0.005 per tail).

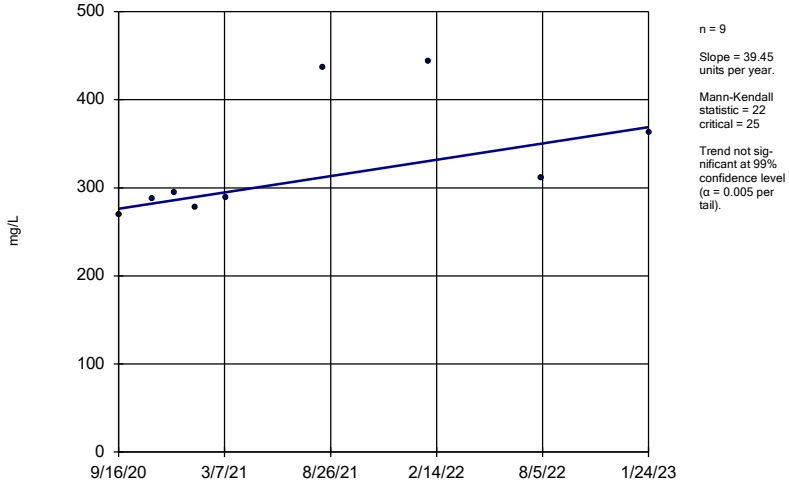
Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWA-44D (bg)



n = 9

Slope = 39.45 units per year.

Mann-Kendall statistic = 22 critical = 25

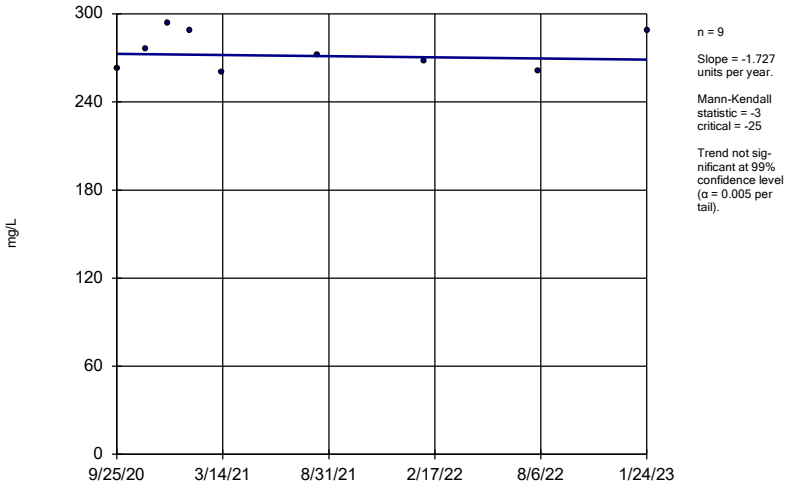
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sen's Slope Estimator

HGWA-45D (bg)



n = 9

Slope = -1.727 units per year.

Mann-Kendall statistic = -3
critical = -25

Trend not significant at 99% confidence level (α = 0.005 per tail).

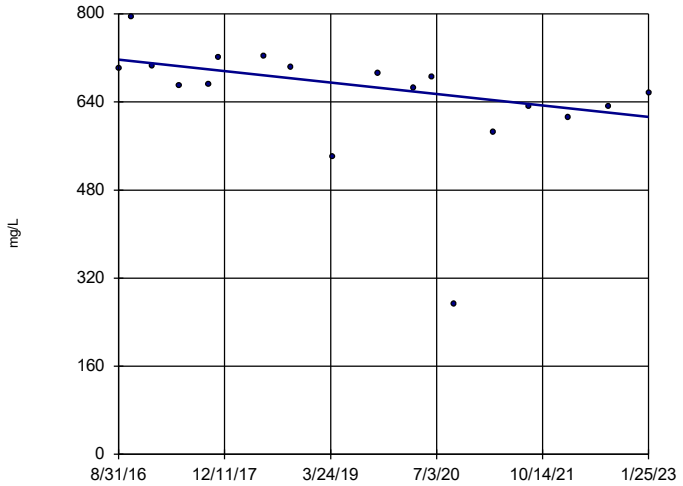
Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-120



n = 18

Slope = -16.21 units per year.

Mann-Kendall statistic = -70
critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

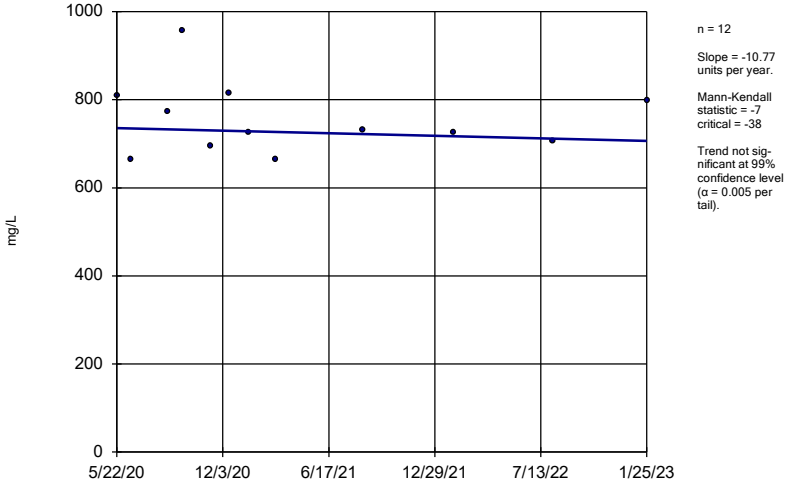
Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37 Sanitas software utilized by Groundwater Stats Consulting. UG

Sen's Slope Estimator

HGWC-125



n = 12

Slope = -10.77 units per year.

Mann-Kendall statistic = -7
critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 3/29/2023 4:15 PM View: Interwell PL

Plant Hammond Client: Southern Company Data: Hammond AP-3

FIGURE F.

Upper Tolerance Limits Summary Table

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 5/16/2023, 2:21 PM

Constituent	Well	Upper Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.003	n/a	n/a	n/a	106	85.85	n/a	0.004352	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	n/a	n/a	n/a	104	71.15	n/a	0.004822	NP Inter(NDs)
Barium (mg/L)	n/a	0.64	n/a	n/a	n/a	114	0.8772	n/a	0.002887	NP Inter(normality)
Beryllium (mg/L)	n/a	0.0005	n/a	n/a	n/a	106	83.02	n/a	0.004352	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0005	n/a	n/a	n/a	104	88.46	n/a	0.004822	NP Inter(NDs)
Chromium (mg/L)	n/a	0.0079	n/a	n/a	n/a	108	79.63	n/a	0.003928	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.038	n/a	n/a	n/a	114	78.07	n/a	0.002887	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.619	n/a	n/a	n/a	107	0	sqrt(x)	0.05	Inter
Fluoride (mg/L)	n/a	1.3	n/a	n/a	n/a	121	23.14	n/a	0.002016	NP Inter(normality)
Lead (mg/L)	n/a	0.001	n/a	n/a	n/a	108	69.44	n/a	0.003928	NP Inter(NDs)
Lithium (mg/L)	n/a	0.064	n/a	n/a	n/a	114	31.58	n/a	0.002887	NP Inter(normality)
Mercury (mg/L)	n/a	0.0002	n/a	n/a	n/a	86	94.19	n/a	0.01214	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	n/a	n/a	116	66.38	n/a	0.002606	NP Inter(NDs)
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	104	98.08	n/a	0.004822	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	n/a	n/a	104	99.04	n/a	0.004822	NP Inter(NDs)

FIGURE G.

PLANT HAMMOND AP-3 GWPS				
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**GWPS**
Antimony, Total (mg/L)	0.006		0.003	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01
Barium, Total (mg/L)	2		0.64	2
Beryllium, Total (mg/L)	0.004		0.0005	0.004
Cadmium, Total (mg/L)	0.005		0.0005	0.005
Chromium, Total (mg/L)	0.1		0.0079	0.1
Cobalt, Total (mg/L)	n/a	0.006	0.038	0.038
Combined Radium, Total (pCi/L)	5		1.62	5
Fluoride, Total (mg/L)	4		1.3	4
Lead, Total (mg/L)	n/a	0.015	0.001	0.015
Lithium, Total (mg/L)	n/a	0.04	0.064	0.064
Mercury, Total (mg/L)	0.002		0.0002	0.002
Molybdenum, Total (mg/L)	n/a	0.1	0.01	0.1
Selenium, Total (mg/L)	0.05		0.005	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002

**Grey cell indidcates background is higher than MCL or CCR-Rule*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residuals*

**GWPS = Groundwater Protection Statard*

FIGURE H.

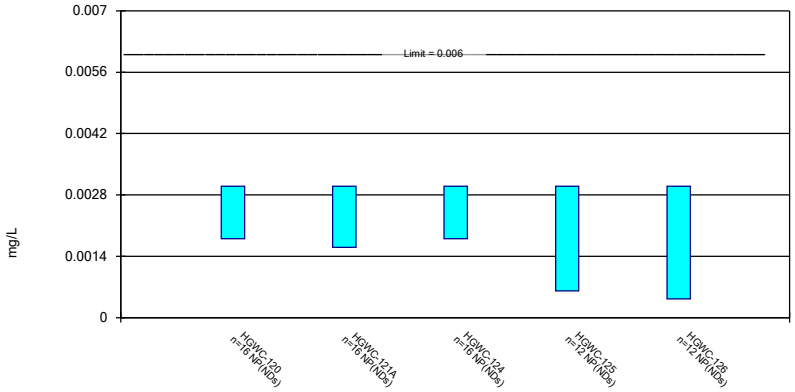
Confidence Intervals - All Results (No Significant)

Plant Hammond Client: Southern Company Data: Hammond AP-3 Printed 5/17/2023, 2:56 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	HGWC-120	0.003	0.0018	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-121A	0.003	0.0016	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-124	0.003	0.0018	0.006	No	16	93.75	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-125	0.003	0.00061	0.006	No	12	83.33	None	No	0.01	NP (NDs)
Antimony (mg/L)	HGWC-126	0.003	0.00043	0.006	No	12	83.33	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-120	0.005	0.001	0.01	No	14	64.29	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-121A	0.005	0.0014	0.01	No	14	78.57	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-124	0.005	0.0006	0.01	No	14	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	HGWC-125	0.005	0.0014	0.01	No	11	72.73	None	No	0.006	NP (NDs)
Arsenic (mg/L)	HGWC-126	0.005	0.00091	0.01	No	11	72.73	None	No	0.006	NP (NDs)
Barium (mg/L)	HGWC-120	0.05167	0.04678	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-121A	0.07926	0.06412	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-124	0.07253	0.0675	2	No	18	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-125	0.04591	0.04093	2	No	12	0	None	No	0.01	Param.
Barium (mg/L)	HGWC-126	0.2546	0.2288	2	No	12	0	None	No	0.01	Param.
Chromium (mg/L)	HGWC-120	0.005	0.0015	0.1	No	18	83.33	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-121A	0.005	0.0005	0.1	No	18	94.44	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-124	0.005	0.00051	0.1	No	18	88.89	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-125	0.005	0.00058	0.1	No	12	75	None	No	0.01	NP (NDs)
Chromium (mg/L)	HGWC-126	0.005	0.0014	0.1	No	12	83.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-120	0.004529	0.003071	0.038	No	18	0	None	sqrt(x)	0.01	Param.
Cobalt (mg/L)	HGWC-121A	0.005	0.0005	0.038	No	18	83.33	None	No	0.01	NP (NDs)
Cobalt (mg/L)	HGWC-125	0.01236	0.007892	0.038	No	12	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-120	1.08	0.6563	5	No	17	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-121A	1.142	0.5104	5	No	17	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-124	0.8781	0.5557	5	No	17	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-125	1.386	0.6754	5	No	11	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	HGWC-126	1.731	1.042	5	No	11	0	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-120	1	0.37	4	No	21	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-121A	0.2	0.14	4	No	19	0	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-124	0.11	0.074	4	No	19	36.84	None	No	0.01	NP (normality)
Fluoride (mg/L)	HGWC-125	0.1691	0.1193	4	No	12	0	None	No	0.01	Param.
Fluoride (mg/L)	HGWC-126	0.509	0.441	4	No	12	0	None	No	0.01	Param.
Lead (mg/L)	HGWC-120	0.001	0.0002	0.015	No	18	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-121A	0.001	0.00036	0.015	No	18	83.33	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-124	0.001	0.00008	0.015	No	18	72.22	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-125	0.001	0.000047	0.015	No	12	58.33	None	No	0.01	NP (NDs)
Lead (mg/L)	HGWC-126	0.001	0.000045	0.015	No	12	75	None	No	0.01	NP (NDs)
Lithium (mg/L)	HGWC-120	0.0337	0.023	0.064	No	18	0	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-121A	0.008881	0.007574	0.064	No	18	0	None	No	0.01	Param.
Lithium (mg/L)	HGWC-124	0.03	0.0011	0.064	No	18	27.78	None	No	0.01	NP (normality)
Lithium (mg/L)	HGWC-125	0.005635	0.003848	0.064	No	12	0	None	No	0.01	Param.
Lithium (mg/L)	HGWC-126	0.004194	0.003306	0.064	No	12	0	None	No	0.01	Param.
Mercury (mg/L)	HGWC-120	0.0002	0.00007	0.002	No	14	85.71	None	No	0.01	NP (NDs)
Mercury (mg/L)	HGWC-124	0.0002	0.000051	0.002	No	14	92.86	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	HGWC-120	0.03701	0.02674	0.1	No	18	0	None	No	0.01	Param.
Molybdenum (mg/L)	HGWC-124	0.01	0.00091	0.1	No	18	38.89	None	No	0.01	NP (normality)
Molybdenum (mg/L)	HGWC-125	0.009932	0.0005415	0.1	No	12	25	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	HGWC-120	0.005	0.002	0.05	No	14	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-121A	0.005	0.0011	0.05	No	14	92.86	None	No	0.01	NP (NDs)
Selenium (mg/L)	HGWC-124	0.005	0.0014	0.05	No	14	92.86	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.

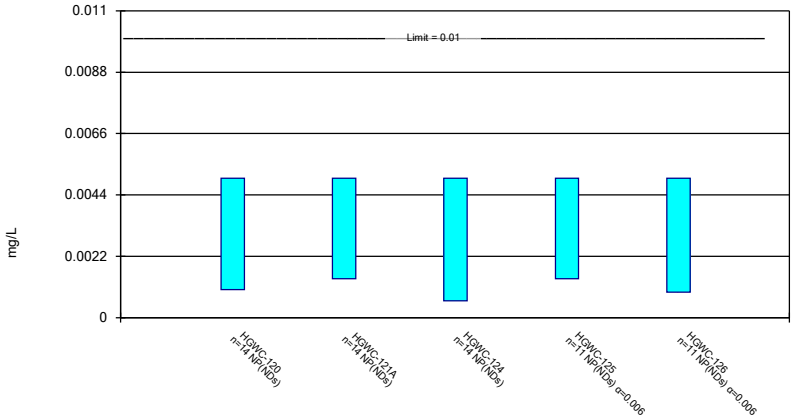


Constituent: Antimony Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.

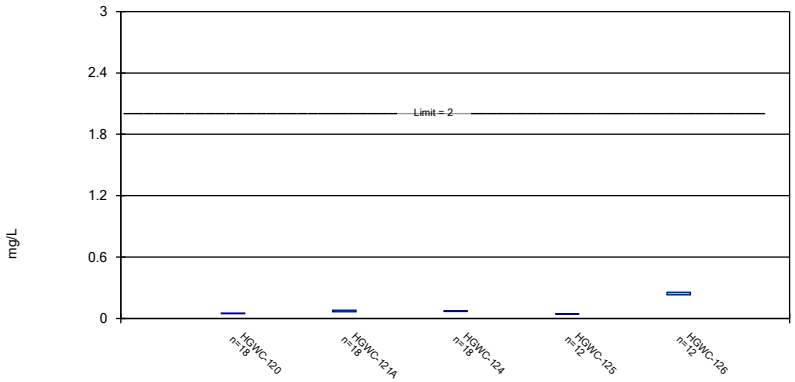


Constituent: Arsenic Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by 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.

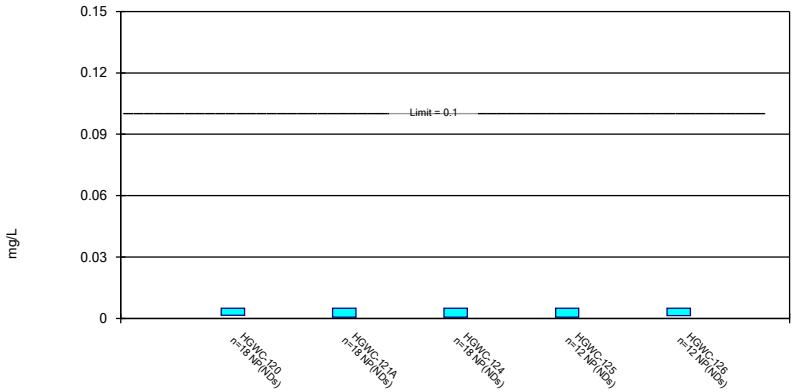


Constituent: Barium Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Sanitas™ v.9.6.37a Sanitas software utilized by Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

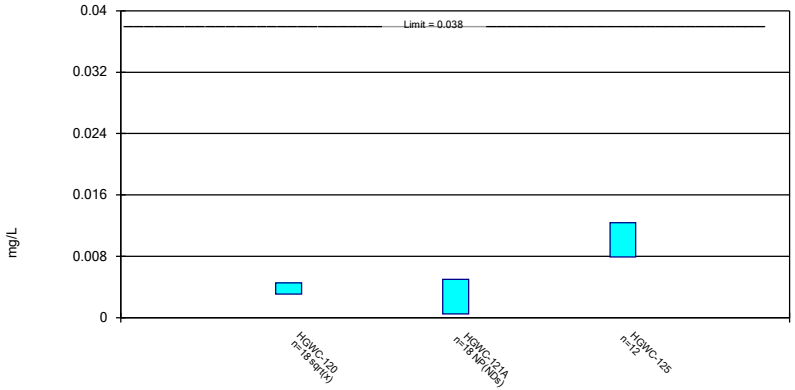
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Chromium Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Parametric and Non-Parametric (NP) Confidence Interval

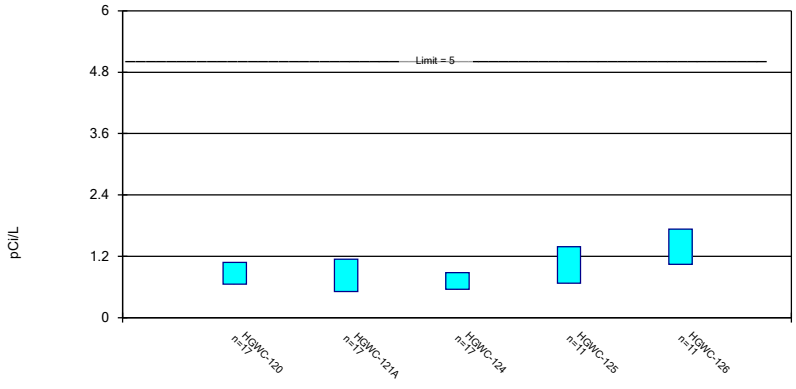
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Parametric Confidence Interval

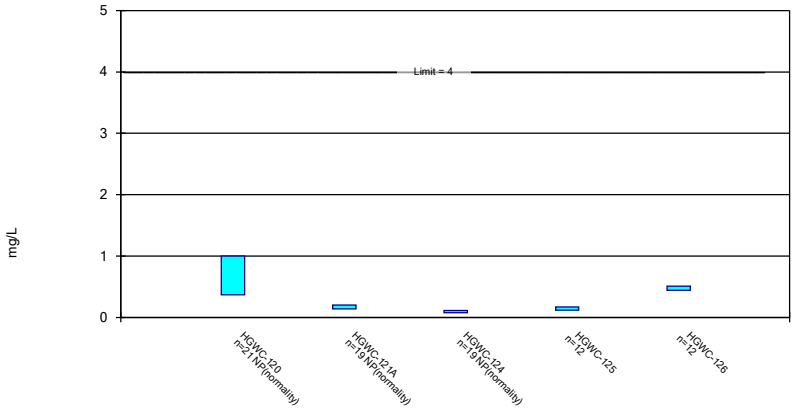
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Parametric and Non-Parametric (NP) Confidence Interval

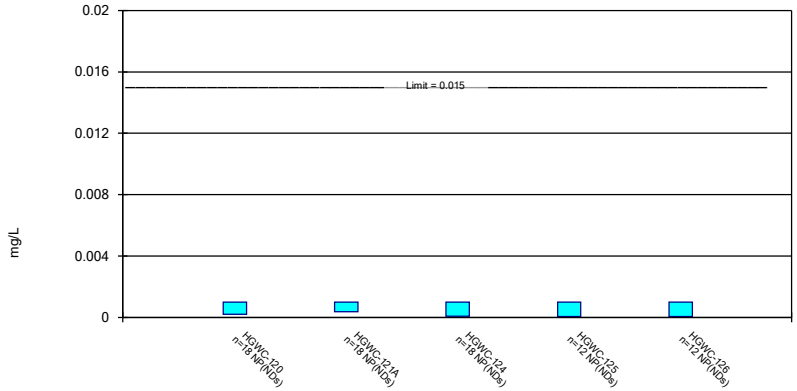
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Non-Parametric Confidence Interval

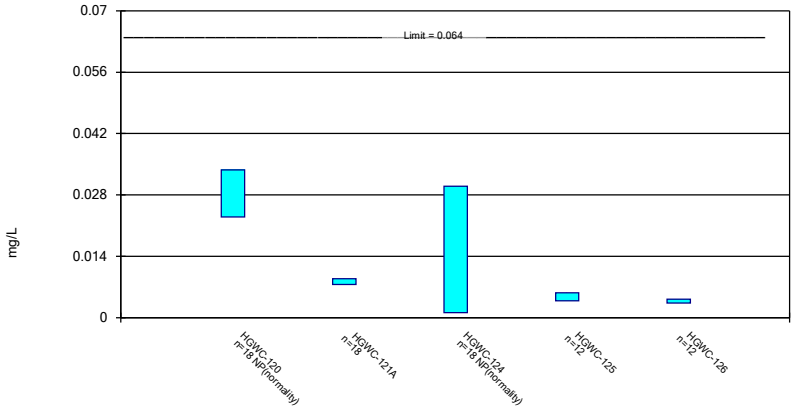
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Parametric and Non-Parametric (NP) Confidence Interval

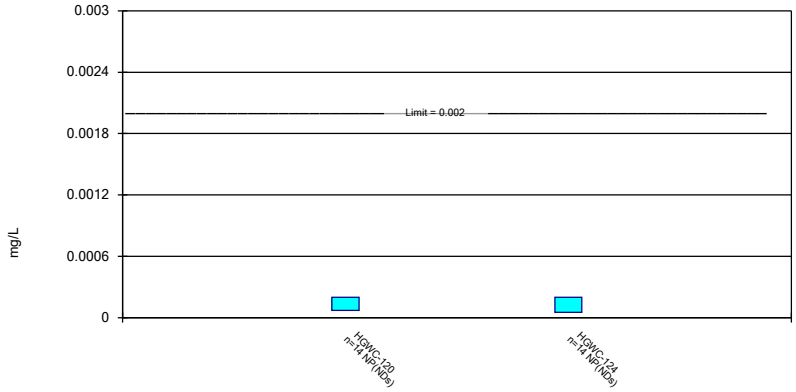
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Non-Parametric Confidence Interval

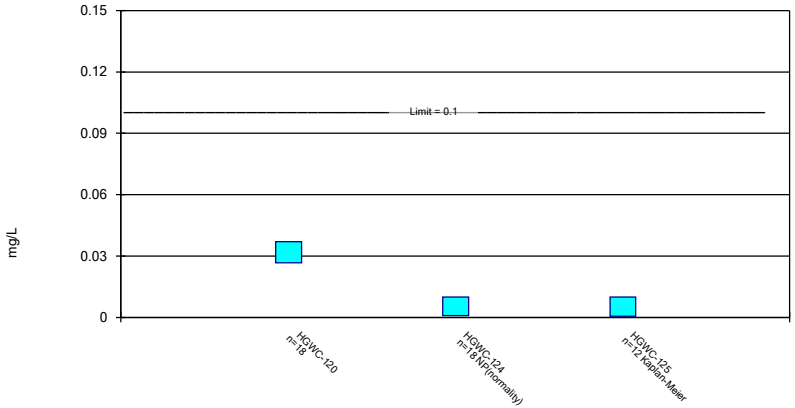
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Parametric and Non-Parametric (NP) Confidence Interval

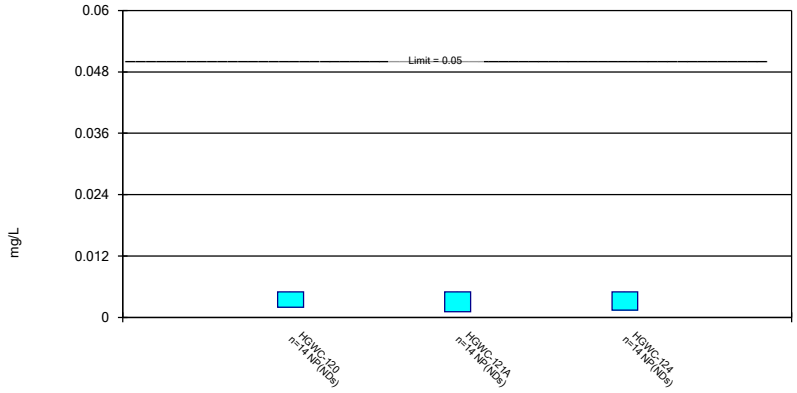
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Selenium Analysis Run 5/17/2023 2:55 PM View: Confidence Interval
Plant Hammond Client: Southern Company Data: Hammond AP-3

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.003	<0.003	<0.003		
10/26/2016	<0.003		<0.003		
11/7/2016		<0.003			
1/13/2017		<0.003			
1/27/2017	<0.003		<0.003		
5/25/2017	<0.003		<0.003		
6/3/2017		<0.003			
8/11/2017			<0.003		
10/2/2017	<0.003	<0.003			
11/15/2017	<0.003	<0.003	<0.003		
6/5/2018	<0.003	<0.003	<0.003		
10/2/2018	<0.003		<0.003		
10/5/2018		<0.003			
8/22/2019	<0.003	<0.003			
8/23/2019			<0.003		
5/22/2020				0.00047 (J)	<0.003
6/16/2020				<0.003	<0.003
8/25/2020				<0.003	<0.003
8/26/2020	<0.003	<0.003			
8/27/2020			<0.003		
9/18/2020					<0.003
9/21/2020	<0.003			<0.003	
9/28/2020		<0.003	<0.003		
11/11/2020					0.0004 (J)
11/12/2020				<0.003	
12/16/2020				<0.003	<0.003
1/20/2021				<0.003	<0.003
3/12/2021	0.0018 (J)			0.00061 (J)	0.00043 (J)
3/15/2021		<0.003	<0.003		
8/16/2021	<0.003	<0.003	<0.003		
8/19/2021				<0.003	<0.003
2/2/2022	<0.003	<0.003	<0.003		
2/3/2022				<0.003	<0.003
8/4/2022	<0.003	0.0016 (J)	<0.003	<0.003	<0.003
1/24/2023		<0.003	0.0018 (J)		
1/25/2023	<0.003			<0.003	<0.003
Mean	0.002925	0.002913	0.002925	0.00259	0.002569
Std. Dev.	0.0003	0.00035	0.0003	0.000958	0.001006
Upper Lim.	0.003	0.003	0.003	0.003	0.003
Lower Lim.	0.0018	0.0016	0.0018	0.00061	0.00043

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.005	<0.005	<0.005		
10/26/2016	<0.005		<0.005		
11/7/2016		<0.005			
1/13/2017		<0.005			
1/27/2017	<0.005		<0.005		
5/25/2017	0.0014 (J)		0.0006 (J)		
6/3/2017		0.001 (J)			
8/11/2017			<0.005		
10/2/2017	0.0007 (J)	<0.005			
11/15/2017	<0.005	<0.005	<0.005		
6/5/2018	0.001 (J)	0.0014 (J)	<0.005		
10/2/2018	<0.005		<0.005		
10/5/2018		<0.005			
8/22/2019	<0.005	<0.005			
8/23/2019			<0.005		
5/22/2020				0.00081 (J)	0.00071 (J)
6/16/2020				0.0014 (J)	0.00091 (J)
8/25/2020				<0.005	<0.005
8/26/2020	<0.005	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020				<0.005	
11/11/2020					<0.005
11/12/2020				<0.005	
12/16/2020				<0.005	<0.005
1/20/2021				<0.005	<0.005
8/16/2021	0.0015 (J)	0.0014 (J)	<0.005		
8/19/2021				<0.005	<0.005
2/2/2022	0.0014 (J)	<0.005	<0.005		
2/3/2022				0.0032 (J)	0.0026 (J)
8/4/2022	<0.005	<0.005	<0.005	<0.005	<0.005
1/24/2023		<0.005	<0.005		
1/25/2023	<0.005			<0.005	<0.005
Mean	0.003643	0.0042	0.004686	0.004128	0.00402
Std. Dev.	0.001899	0.001592	0.001176	0.001594	0.001741
Upper Lim.	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.001	0.0014	0.0006	0.0014	0.00091

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.045	0.0782	0.0744		
10/26/2016	0.0462		0.0735		
11/7/2016		0.0764			
1/13/2017		0.0744			
1/27/2017	0.0451		0.0632		
5/25/2017	0.0488		0.0773		
6/3/2017		0.0933			
8/11/2017			0.0672		
10/2/2017	0.0479	0.0815			
11/15/2017	0.051	0.0807	0.0707		
6/5/2018	0.051	0.078	0.07		
10/2/2018	0.059		0.067		
10/5/2018		0.074			
8/22/2019	0.05	0.066			
8/23/2019			0.066		
10/21/2019		0.074	0.075		
10/22/2019	0.051				
3/24/2020			0.075		
3/25/2020	0.052	0.099			
5/22/2020				0.048	0.24
6/16/2020				0.049	0.24
8/25/2020				0.045	0.23
8/26/2020	0.041	0.057			
8/27/2020			0.062		
9/18/2020					0.21
9/21/2020	0.046			0.042	
9/28/2020		0.056	0.071		
11/11/2020					0.23
11/12/2020				0.042	
12/16/2020				0.041	0.24
1/20/2021				0.045	0.25
3/12/2021	0.047			0.043	0.27
3/15/2021		0.059	0.071		
8/16/2021	0.052	0.06	0.069		
8/19/2021				0.044	0.27
2/2/2022	0.054	0.064	0.072		
2/3/2022				0.043	0.24
8/4/2022	0.048	0.06	0.068	0.037	0.24
1/24/2023		0.059	0.068		
1/25/2023	0.051			0.042	0.24
Mean	0.04922	0.07169	0.07002	0.04342	0.2417
Std. Dev.	0.00404	0.01251	0.004155	0.003175	0.01642
Upper Lim.	0.05167	0.07926	0.07253	0.04591	0.2546
Lower Lim.	0.04678	0.06412	0.0675	0.04093	0.2288

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.005	<0.005	<0.005		
10/26/2016	<0.005		<0.005		
11/7/2016		<0.005			
1/13/2017		<0.005			
1/27/2017	<0.005		<0.005		
5/25/2017	<0.005		<0.005		
6/3/2017		<0.005			
8/11/2017			<0.005		
10/2/2017	<0.005	<0.005			
11/15/2017	<0.005	<0.005	<0.005		
6/5/2018	<0.005	<0.005	<0.005		
10/2/2018	<0.005		<0.005		
10/5/2018		<0.005			
8/22/2019	0.00072 (J)	<0.005			
8/23/2019			<0.005		
10/21/2019		<0.005	0.00046 (J)		
10/22/2019	<0.005				
3/24/2020			0.00051 (J)		
3/25/2020	0.0015 (J)	0.0005 (J)			
5/22/2020				0.00058 (J)	<0.005
6/16/2020				0.00052 (J)	<0.005
8/25/2020				<0.005	0.00096 (J)
8/26/2020	<0.005	<0.005			
8/27/2020			<0.005		
9/18/2020					<0.005
9/21/2020	0.00065 (J)			<0.005	
9/28/2020		<0.005	<0.005		
11/11/2020					<0.005
11/12/2020				<0.005	
12/16/2020				<0.005	<0.005
1/20/2021				0.00081 (J)	<0.005
3/12/2021	<0.005			<0.005	<0.005
3/15/2021		<0.005	<0.005		
8/16/2021	<0.005	<0.005	<0.005		
8/19/2021				<0.005	<0.005
2/2/2022	<0.005	<0.005	<0.005		
2/3/2022				<0.005	<0.005
8/4/2022	<0.005	<0.005	<0.005	<0.005	<0.005
1/24/2023		<0.005	<0.005		
1/25/2023	<0.005			<0.005	0.0014 (J)
Mean	0.004326	0.00475	0.004498	0.003909	0.004363
Std. Dev.	0.001559	0.001061	0.00146	0.001974	0.00149
Upper Lim.	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0015	0.0005	0.00051	0.00058	0.0014

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-125
8/31/2016	0.0052 (J)	<0.005	
10/26/2016	0.0041 (J)		
11/7/2016		<0.005	
1/13/2017		<0.005	
1/27/2017	0.0034 (J)		
5/25/2017	0.0035 (J)		
6/3/2017		0.0005 (J)	
10/2/2017	0.0036 (J)	0.0003 (J)	
11/15/2017	0.0032 (J)	0.0003 (J)	
6/5/2018	0.0031 (J)	<0.005	
10/2/2018	0.0025 (J)		
10/5/2018		<0.005	
8/22/2019	0.0028 (J)	<0.005	
10/21/2019		<0.005	
10/22/2019	0.0031 (J)		
3/25/2020	0.0036 (J)	<0.005	
5/22/2020			0.01
6/16/2020			0.0096
8/25/2020			0.0087
8/26/2020	0.0023 (J)	<0.005	
9/21/2020	0.0041 (J)		0.012
9/28/2020		<0.005	
11/12/2020			0.012
12/16/2020			0.0055
1/20/2021			0.012
3/12/2021	0.0027 (J)		0.014
3/15/2021		<0.005	
8/16/2021	0.0037 (J)	<0.005	
8/19/2021			0.0054
2/2/2022	0.0072	<0.005	
2/3/2022			0.0086
8/4/2022	0.0058	<0.005	0.014
1/24/2023		<0.005	
1/25/2023	0.0055		0.0097
Mean	0.003856	0.004228	0.01013
Std. Dev.	0.001292	0.001777	0.002846
Upper Lim.	0.004529	0.005	0.01236
Lower Lim.	0.003071	0.0005	0.007892

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	1.47	1.57	1.22		
10/26/2016	0.864 (U)		0.637 (U)		
11/7/2016		0.739 (U)			
1/13/2017		0.744 (U)			
1/27/2017	0.521 (U)		0.795 (U)		
5/25/2017	0.681 (U)		0.896 (U)		
6/3/2017		0 (U)			
8/11/2017			0.828 (U)		
10/2/2017	0.632 (U)	0.68 (U)			
11/15/2017	1.3	0.911 (U)	0.478 (U)		
6/5/2018	1.26 (U)	0.948 (U)	0.947 (U)		
10/2/2018	0.572 (U)		0.617 (U)		
10/5/2018		1.17 (U)			
8/22/2019	1.35	1.3			
8/23/2019			0.834		
10/21/2019		0.393 (U)	1.11 (U)		
10/22/2019	0.76 (U)				
3/24/2020			0.796 (U)		
3/25/2020	0.696 (U)	0.505 (U)			
5/22/2020				1.1 (U)	1.82
6/16/2020				1.62	1.82
8/25/2020				1.65	1.82
8/26/2020	0.357 (U)	1.96			
8/27/2020			0.494 (U)		
9/18/2020					0.841 (U)
9/21/2020	0.553 (U)			1.45	
9/28/2020		0.761 (U)	0.477 (U)		
11/11/2020					0.837 (U)
11/12/2020				0.633 (U)	
12/16/2020				0.818 (U)	1.26 (U)
1/20/2021				1.01 (U)	0.985 (U)
8/16/2021	1.25	0.192 (U)	0.734 (U)		
8/19/2021				0.721 (U)	1.11
2/2/2022	0.816 (U)	0.254 (U)	0.564 (U)		
2/3/2022				0.257 (U)	1.51
8/4/2022	0.687 (U)	1.16 (U)	0.16 (U)	0.971 (U)	1.34 (U)
1/24/2023		0.757 (U)	0.601 (U)		
1/25/2023	0.992			1.11	1.91
Mean	0.8683	0.8261	0.7169	1.031	1.387
Std. Dev.	0.3384	0.5039	0.2573	0.4266	0.4133
Upper Lim.	1.08	1.142	0.8781	1.386	1.731
Lower Lim.	0.6563	0.5104	0.5557	0.6754	1.042

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.65	0.14 (J)	0.15 (J)		
10/26/2016	0.6		0.3		
11/7/2016		0.18 (J)			
1/13/2017		0.14 (J)			
1/27/2017	1.2		0.3		
5/25/2017	1.4		0.05 (J)		
6/3/2017		0.15 (J)			
8/11/2017			0.1 (J)		
10/2/2017	1	1.2			
11/15/2017	1.3	0.6	<0.1		
6/5/2018	0.48	0.19 (J)	0.078 (J)		
10/2/2018	0.34		0.078 (J)		
10/5/2018		0.23 (J)			
4/2/2019	0.47				
4/3/2019		0.14 (J)	0.089 (J)		
6/17/2019	1.2				
8/22/2019	0.3 (J)	0.2 (J)			
8/23/2019			0.11 (J)		
10/21/2019		0.18 (J)	0.073 (J)		
10/22/2019	0.53				
3/24/2020			<0.1		
3/25/2020	0.43	0.095 (J)			
5/22/2020				0.1 (J)	0.46
6/15/2020	0.37				
6/16/2020				0.12	0.44
8/25/2020				0.16	0.52
8/26/2020	0.48	0.16			
8/27/2020			<0.1		
9/18/2020					0.43
9/21/2020	0.33			0.11	
9/28/2020		0.15	<0.1		
11/11/2020					0.45
11/12/2020				0.12	
12/16/2020				0.2	0.49
1/20/2021				0.13	0.44
3/12/2021	0.42			0.12	0.46
3/15/2021		0.16	<0.1		
8/16/2021	0.39	0.15	<0.1		
8/19/2021				0.17	0.43
2/2/2022	0.36	0.15	<0.1		
2/3/2022				0.18	0.51
8/4/2022	0.38	0.18	0.074 (J)	0.15	0.5
1/24/2023		0.18	0.068 (J)		
1/25/2023	0.42			0.17	0.57
Mean	0.6214	0.2408	0.1142	0.1442	0.475
Std. Dev.	0.3592	0.2545	0.06863	0.03175	0.04338
Upper Lim.	1	0.2	0.11	0.1691	0.509
Lower Lim.	0.37	0.14	0.074	0.1193	0.441

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	<0.001	<0.001	<0.001		
10/26/2016	0.0002 (J)		<0.001		
11/7/2016		<0.001			
1/13/2017		<0.001			
1/27/2017	<0.001		<0.001		
5/25/2017	9E-05 (J)		<0.001		
6/3/2017		7E-05 (J)			
8/11/2017			8E-05 (J)		
10/2/2017	8E-05 (J)	<0.001			
11/15/2017	<0.001	<0.001	<0.001		
6/5/2018	<0.001	0.00036 (J)	<0.001		
10/2/2018	<0.001		<0.001		
10/5/2018		<0.001			
8/22/2019	<0.001	<0.001			
8/23/2019			4.9E-05 (J)		
10/21/2019		<0.001	4.9E-05 (J)		
10/22/2019	<0.001				
3/24/2020			9.4E-05 (J)		
3/25/2020	<0.001	<0.001			
5/22/2020				0.00014 (J)	<0.001
6/16/2020				0.00013 (J)	<0.001
8/25/2020				<0.001	4.5E-05 (J)
8/26/2020	<0.001	<0.001			
8/27/2020			<0.001		
9/18/2020					<0.001
9/21/2020	<0.001			<0.001	
9/28/2020		<0.001	7.5E-05 (J)		
11/11/2020					4.2E-05 (J)
11/12/2020				4.7E-05 (J)	
12/16/2020				<0.001	<0.001
1/20/2021				9.2E-05 (J)	<0.001
3/12/2021	<0.001			4.4E-05 (J)	4.6E-05 (J)
3/15/2021		0.00015 (J)	<0.001		
8/16/2021	<0.001	<0.001	<0.001		
8/19/2021				<0.001	<0.001
2/2/2022	<0.001	<0.001	<0.001		
2/3/2022				<0.001	<0.001
8/4/2022	<0.001	<0.001	<0.001	<0.001	<0.001
1/24/2023		<0.001	<0.001		
1/25/2023	<0.001			<0.001	<0.001
Mean	0.0008539	0.0008656	0.0007415	0.0006211	0.0007611
Std. Dev.	0.000337	0.0003136	0.000429	0.0004691	0.0004322
Upper Lim.	0.001	0.001	0.001	0.001	0.001
Lower Lim.	0.0002	0.00036	8E-05	4.7E-05	4.5E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124	HGWC-125	HGWC-126
8/31/2016	0.0333 (J)	0.0077 (J)	<0.03		
10/26/2016	0.0352 (J)		<0.03		
11/7/2016		0.0089 (J)			
1/13/2017		0.0091 (J)			
1/27/2017	0.0329 (J)		<0.03		
5/25/2017	0.0347 (J)		0.0011 (J)		
6/3/2017		0.0104 (J)			
8/11/2017			<0.03		
10/2/2017	0.0337 (J)	0.0095 (J)			
11/15/2017	0.0347 (J)	0.0086 (J)	<0.03		
6/5/2018	0.033 (J)	0.0092 (J)	0.0012 (J)		
10/2/2018	0.031 (J)		0.0012 (J)		
10/5/2018		0.0091 (J)			
8/22/2019	0.029 (J)	0.0084 (J)			
8/23/2019			0.0011 (J)		
10/21/2019		0.009 (J)	0.0011 (J)		
10/22/2019	0.03 (J)				
3/24/2020			0.0012 (J)		
3/25/2020	0.024 (J)	0.0066 (J)			
5/22/2020				0.0052 (J)	0.0046 (J)
6/16/2020				0.0053 (J)	0.0045 (J)
8/25/2020				0.0037 (J)	0.0037 (J)
8/26/2020	0.023 (J)	0.0071 (J)			
8/27/2020			0.00091 (J)		
9/18/2020					0.0035 (J)
9/21/2020	0.023 (J)			0.0038 (J)	
9/28/2020		0.0076 (J)	0.0011 (J)		
11/11/2020					0.0032 (J)
11/12/2020				0.0038 (J)	
12/16/2020				0.0055 (J)	0.0029 (J)
1/20/2021				0.0046 (J)	0.0038 (J)
3/12/2021	0.023 (J)			0.0039 (J)	0.0038 (J)
3/15/2021		0.0077 (J)	0.001 (J)		
8/16/2021	0.025 (J)	0.0075 (J)	0.0011 (J)		
8/19/2021				0.0074 (J)	0.0032 (J)
2/2/2022	0.025 (J)	0.0082 (J)	0.0012 (J)		
2/3/2022				0.0057 (J)	0.0038 (J)
8/4/2022	0.023 (J)	0.0069 (J)	0.0011 (J)	0.0035 (J)	0.0034 (J)
1/24/2023		0.0066 (J)	0.0011 (J)		
1/25/2023	0.018 (J)			0.0045 (J)	0.0046 (J)
Mean	0.02842	0.008228	0.009134	0.004742	0.00375
Std. Dev.	0.005402	0.00108	0.01332	0.001139	0.0005665
Upper Lim.	0.0337	0.008881	0.03	0.005635	0.004194
Lower Lim.	0.023	0.007574	0.0011	0.003848	0.003306

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-124
8/31/2016	4E-05 (J)	<0.0002
10/26/2016	<0.0002	<0.0002
1/27/2017	<0.0002	<0.0002
5/25/2017	7E-05 (J)	5.1E-05 (J)
8/11/2017		<0.0002
10/2/2017	<0.0002	
11/15/2017	<0.0002	<0.0002
6/5/2018	<0.0002	<0.0002
10/2/2018	<0.0002	<0.0002
8/22/2019	<0.0002	
8/23/2019		<0.0002
8/26/2020	<0.0002	
8/27/2020		<0.0002
8/16/2021	<0.0002	<0.0002
2/2/2022	<0.0002	<0.0002
8/4/2022	<0.0002	<0.0002
1/24/2023		<0.0002
1/25/2023	<0.0002	
Mean	0.0001793	0.0001894
Std. Dev.	5.298E-05	3.982E-05
Upper Lim.	0.0002	0.0002
Lower Lim.	7E-05	5.1E-05

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-124	HGWC-125
8/31/2016	0.0176	<0.01	
10/26/2016	0.0187	<0.01	
1/27/2017	0.0214	<0.01	
5/25/2017	0.0231	0.0009 (J)	
8/11/2017		0.0013 (J)	
10/2/2017	0.0259		
11/15/2017	0.0281	0.0012 (J)	
6/5/2018	0.033	<0.01	
10/2/2018	0.036	<0.01	
8/22/2019	0.039		
8/23/2019		0.0014 (J)	
10/21/2019		0.0013 (J)	
10/22/2019	0.04		
3/24/2020		0.001 (J)	
3/25/2020	0.034		
5/22/2020			<0.01
6/16/2020			<0.01
8/25/2020			0.00099 (J)
8/26/2020	0.05		
8/27/2020		0.00091 (J)	
9/21/2020	0.043		<0.01
9/28/2020		0.0009 (J)	
11/12/2020			0.0017 (J)
12/16/2020			0.014
1/20/2021			0.0013 (J)
3/12/2021	0.033		0.0012 (J)
3/15/2021		0.00092 (J)	
8/16/2021	0.035	0.00091 (J)	
8/19/2021			0.021
2/2/2022	0.034	0.001 (J)	
2/3/2022			0.0067 (J)
8/4/2022	0.032	<0.01	0.0023 (J)
1/24/2023		<0.01	
1/25/2023	0.03		0.0053 (J)
Mean	0.03188	0.004541	0.007041
Std. Dev.	0.008489	0.004483	0.006233
Upper Lim.	0.03701	0.01	0.009932
Lower Lim.	0.02674	0.00091	0.0005415

ND substitution: RL or RL/2 if <15% NDs.

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/17/2023 2:56 PM View: Confidence Interval

Plant Hammond Client: Southern Company Data: Hammond AP-3

	HGWC-120	HGWC-121A	HGWC-124
8/31/2016	<0.005	<0.005	<0.005
10/26/2016	<0.005		<0.005
11/7/2016		<0.005	
1/13/2017		0.0011 (J)	
1/27/2017	<0.005		<0.005
5/25/2017	<0.005		<0.005
6/3/2017		<0.005	
8/11/2017			<0.005
10/2/2017	0.002 (J)	<0.005	
11/15/2017	<0.005	<0.005	<0.005
6/5/2018	<0.005	<0.005	<0.005
10/2/2018	<0.005		0.0014 (J)
10/5/2018		<0.005	
8/22/2019	<0.005	<0.005	
8/23/2019			<0.005
8/26/2020	<0.005	<0.005	
8/27/2020			<0.005
8/16/2021	<0.005	<0.005	<0.005
2/2/2022	<0.005	<0.005	<0.005
8/4/2022	<0.005	<0.005	<0.005
1/24/2023		<0.005	<0.005
1/25/2023	<0.005		
Mean	0.004786	0.004721	0.004743
Std. Dev.	0.0008018	0.001042	0.0009621
Upper Lim.	0.005	0.005	0.005
Lower Lim.	0.002	0.0011	0.0014

ND substitution: RL or RL/2 if <15% NDs.